## College Catalog 2010-2011 <br> Volume 91

## 3200 College Avenue <br> Beaver Falls, PA 15010 <br> 724-846-5100 <br> www.geneva.edu



This catalog is designed to communicate clearly the information needed by students, faculty, and prospective students. It can be accessed on the Geneva website.

The provisions of this catalog should not be regarded as a contract between any student and the college. Course content and regulations are constantly being reviewed and revised. The college reserves the right to withdraw or amend the content of any courses listed if circumstances necessitate such changes.

## TABLE OF CONTENTS

College Calendar ..... 4
Fall Semester 2010-2011 ..... 4
Spring Semester 2010-2011 ..... 4
Summer Session 2011 ..... 4
Geneva Today ..... 5
Mission Statement ..... 5
Doctrinal Statement ..... 5
Foundational Concepts of Christian Education ..... 5
Stated Aims of the College. ..... 7
Statement of Commitment ..... 7
Student Outcomes ..... 8
A Curricular Vision for Geneva College ..... 9
Geneva's Heritage ..... 12
Institutional Control ..... 12
Denominational Commitment ..... 12
Academics at Geneva ..... 13
Accreditation and Membership ..... 13
Guide to Program Information ..... 14
Effective Date of the Catalog ..... 15
Degree Requirements ..... 15
Practicum, Special Study, Internship, Honors Courses, Independent Study, Specialized Summer Courses ..... 19
Classification of Students ..... 20
Academic Policies ..... 20
Class Attendance ..... 21
Grading System ..... 22
Academic Integrity ..... 23
Academic Standing ..... 25
Academic Continuation ..... 25
Withdrawal From The College ..... 27
Credit-No Credit Option. ..... 27
Credit-No Credit Courses ..... 27
Transfer Policies ..... 28
Applied Music Policies ..... 28
Auditing ..... 28
Veteran's Education ..... 28
Program for Adult Continuing Education ..... 28
Books and Supplies ..... 28
Graduation Arrangements ..... 28
Degrees and Programs ..... 30
Degrees ..... 30
Undergraduate Majors/Programs ..... 30
Undergraduate Minors/Programs ..... 31
Traditional Undergraduate Programs ..... 33
Department of Biblical Languages, Biblical Studies, Christian Ministries, Philosophy, \& Student Ministry ..... 33
Department of Biology ..... 40
Department of Business, Accounting, and Management ..... 44
Department of Chemistry ..... 48
Department of Communication ..... 52
Department of Computer Science, Mathematics and Physics ..... 55
Department of Education ..... 58
Department of Engineering ..... 65
Department of English ..... 72
Department of History, Political Science, and Sociology ..... 77
Department of Languages and Cultures ..... 80
Department of Music ..... 81
Department of Physical Education ..... 86
Department of Psychology, Counseling and Human Services ..... 87
Pre-Professional Programs ..... 91
Non-Traditional Undergraduate Programs ..... 93
The Center for Urban Theological Studies (CUTS) ..... 93
The Center for Urban Biblical Ministry (CUBM) ..... 93
Adult Degree Completion Programs ..... 93
Off-Campus Study Opportunities ..... 97
Graduate Programs ..... 103
Master of Arts in Counseling ..... 104
Master of Arts In Higher Education ..... 110
Master of Business Administration ..... 113
Master of Education in Reading ..... 116
Master of Education in Special Education ..... 118
Master of Science in Cardiovascular Science ..... 120
Master of Science in Organizational Leadership ..... 123
Undergraduate Course Descriptions ..... 126
Campus Life at Geneva ..... 173
Student Activities ..... 173
Faith Development ..... 175
Career Development ..... 176
Crossroads: Geneva's Center for Off-campus Study ..... 176
Student Support Services ..... 177
Privacy Issues (FERPA) ..... 178
Campus Buildings ..... 180
Admissions Procedures for Traditional Undergraduates ..... 183
Financial Information ..... 189
Rates and Fees ..... 189
2010-2011 Schedule of Fees ..... 189
Refund Schedule ..... 190
Payments ..... 190
Scholarships and Financial Aid ..... 190
College Personnel ..... 193
Index. ..... 204

## COLLEGE CALENDAR

## Fall Semester 2010-2011

August 25
August 30
September 3
September 6
October 9
October 15
October 19
November 8
November 23
November 29
November 29
December 13

December 14
December 17

Fall orientation
Classes begin 8 a.m.
Last day to add a class
Labor Day - classes will meet
Homecoming
Fall break begins 5 p.m.
Classes resume 5 p.m.
Last day to drop a class
Thanksgiving break begins 5 p.m.
Classes resume 8 a.m.
Last day for new freshmen to drop 1 class
Reading and review day - no day classes
Evening exams begin
Day exams begin
Final exams end

## Spring Semester 2010-2011

January 10
January 14
January 17
March 04
March 15

March 21
April 11
April 20
April 25
April 27
April 29
May 2
May 3
May 6
May 7

Classes begin 8 a.m.
Last day to add a class
Martin Luther King Day—no day classes
Spring break begins 5 p.m.
Classes resume 8 a.m.-follow Monday day schedule
No evening classes.
Last day to drop a class
Last day for new freshmen to drop one class
Easter break begins 5 p.m.
Classes resume 5 p.m.
Follow Monday day class schedule
Last day of classes
Reading and review day- no day classes
Evening exams begin
Day Exams begin
Final exams end
Baccalaureate
Traditional Undergraduate Commencement 10:00 a.m. Graduate and Adult Education Commencement 4:00 p.m.

## Summer Session 2011

May 16-June 3
June 6-July 7
July 11-August 10
June 6-July 21

Summer I
Summer II
Summer III
Summer Evening

Summer evening classes meet twice a week for 15 sessions.
Dates are subject to change.

## GENEVA TODAY

## Brief Overview

Geneva has been fully accredited by the Middle States Association of Colleges and Schools since 1923 and maintains several other institutional memberships and affiliations, as described on page 13. The college is highly respected academically by its community, other colleges, and graduate schools.

A primary asset is its well-qualified, dedicated Christian faculty, who devote most of their time to teaching and counseling. All full-time faculty members have advanced degrees, and approximately 75 percent have earned doctorates.

Undergraduate degree programs are offered in approximately 30 major fields, plus an "independent" major and several affiliate programs. Several undergraduate majors are delivered to adult students in a non-traditional, cohort-style program. In addition, the college has six graduate programs.

## Mission Statement

The mission of Geneva College is to glorify God by educating and ministering to a diverse community of students for the purpose of developing servant-leaders, transforming society for the Kingdom of Christ. We accomplish this through biblically based programs and services marked by excellence and anchored by the historic, evangelical, and Reformed Christian faith. The curriculum is rooted in the liberal arts and sciences, vocationally focused, and delivered through traditional and specialized programs.

## Doctrinal Statement

Following the creedal commitment of the Reformed Presbyterian Church of North America, we believe: the Bible to be the inerrant authoritative word of God; there is one God eternally existent in three persons, Father, Son and Holy Spirit; in the deity of Jesus Christ and His vicarious and atoning death on the cross; that since humankind is sinful and lost, the regeneration of the Holy Spirit is absolutely necessary for salvation; in the resurrection of both the saved and the lost, the lost unto damnation and the saved unto the resurrection of life; that Jesus Christ is King of all the realms of life and society now, and He shall return personally to consummate His Kingdom.

## Foundational Concepts of Christian Education

The philosophical basis on which Geneva College rests, referred to as the Foundational Concepts of Christian Education, was prepared by a joint committee of the Board of Corporators and Board of Trustees of Geneva College and adopted by the Board of Trustees at its meeting on October 26, 1967. The Board of Corporators and Trustees modified the document in June, 1996.

## Preface

Starting with the belief that God is the source of all truth, education becomes the exciting adventure of seeking to appropriate knowledge in all its various facets under the guidance of the Holy Spirit.

Education which is Christian takes for its perspective the Biblical view of God, mankind and the universe in their mutual relations.

While education in a Christian context does not guarantee truth, it does seek to establish the starting point apart from which ultimate truth can never be learned. It becomes essential, therefore, to establish the direction for education from this Christian perspective and the following Statement has been drawn up in an attempt to make this clear as related to Geneva College. In no sense should it be considered as the last word, but it purports to be the foundational concept upon which scholarship under God may thrive and expand.

This view of education rests upon the historic Christian faith contained in the Scriptures, symbolized by the open Bible on the seal of the college. Holding to the summary of this faith as contained in the Westminster Confession of Faith of the mid-17th century, the Reformed Presbyterian Church of North America has endeavored for over a century to offer through Geneva College an education which articulates the implications of the sovereignty of Jesus Christ over all of His creation.
"For with Thee is the fountain of life; in Thy light shall we see light." Psalm 36:9

## The Theological Basis of Christian Higher Education

## The Christian View of God

God is one being, existing in three persons, the Father, the Son and the Holy Spirit. He is a personal being, possessing in Himself all that personality means but without limitation. He is the self-existent Creator, Preserver and Controller of the universe in its totality.

## The Christian View of Mankind

Men and women are unique among all living creatures, being distinguished from the animals by being created in the image of God as rational, moral and spiritual beings. The purpose of human life is to glorify and to enjoy God, and only when life is so viewed can the highest happiness, welfare and honor be experienced. We are created as immortal beings. Earthly life is therefore preparatory to the life after death, and should not be regarded as an end in itself, though as God's creation the present earthly life has a real value of its own.

By our relationship to Adam as representative of the human race, we are fallen creatures. By moral revolt against God, we lost both our position of communion with God and our ability to consciously reflect God's glory, and instead became devoted to the worship and aggrandizement of self. Our fall into sin affected not only our moral nature but also our intellect, making us prone to error, and requiring divine revelation to determine ultimate standards and values in all fields. The moral and intellectual effects of sin are such that we are incapable of removing them by our own effort.

Jesus Christ, as the second Adam, died and rose again as our representative, in order that we who are chosen of God, regenerated by the Spirit, and by faith identified with Christ in His death and resurrection might be restored to fellowship with God in the Holy Spirit and enabled to glorify God actively in our lives. As believing Christians, having realized our union with Christ and hence our own death to sin and rising to newness of life in the Spirit, we renounce self-centeredness as a lifestyle and seek in every phase of our experience to understand and reflect God's glory.

## The Christian View of the Universe

The universe, as the creation of God, serves to reveal God; and its revelation is true, valid, and useful in itself. The created universe, being full of God's glory, is to be understood, appreciated, ruled and used by us. God in His goodness has bestowed upon us the ability to discover and use truths about the universe, which may be learned irrespective of a person's spiritual relationship with Him. In seeking to understand the truth of the universe in all of its dimensions, we are responsible to use every faculty and effort, but the facts of the universe can be understood in the fullest sense only when viewed in relationship to God. Ultimate judgments must finally be made in the light of God's Word, the Holy Scripture, which is the only adequate and inerrant standard of truth.

## The Purpose of Christian Education

Inasmuch as we were created to glorify God, Christian education seeks to develop the students' abilities to know God and to relate themselves and the created universe to God through the study of His Word and Works. Christian education emphasizes the Person and Work of the Lord Jesus Christ in order that students may be yielded to Him as their Saviour from sin and that they may see in Christ the ultimate purpose and meaning of the whole universe.

It is the purpose of Christian education to seek the realization of the potential of the individual as the image of God through the development of God-given capacities. The fulfillment of those potentialities is reached insofar as students devote those capacities to God's glory in their vocations and daily lives. Christian education endeavors to develop each student's capacity for the enjoyment of the world as God's creation, in all its cultural richness, realizing that all of life as a coherent whole is related to God and His redemptive activity. The goal of Christian education is the development of mature students who, as individuals, have well-integrated personalities; and who, as well-oriented members of society, are building the Kingdom of God in the family, the church, the nation and the world.

## The Implications of Christian Education

## Implications for the School

All persons responsible in any way for the functioning of an educational institution share in the pursuit of its goals. In Christian education this becomes particularly significant since no task, teaching or other, is unrelated to God; and also because all personnel should demonstrate in their lives the end-purpose of Christian education. Everyone shares in the transmission of knowledge, but only those consciously committed to Jesus Christ as revealed in the Scriptures can envision and reach the goals of Christian education. To realize the goals of Christian education all faculty members should seek to understand more completely and to teach more effectively their particular disciplines with academic excellence within a consistent Biblical world and life view.
Geneva College

## Implications for the Student

While students may attain a high degree of knowledge through the grace given to all, in order for them to attain the goals of Christian education, they must be in submission to the person of Jesus Christ, that sin and its effects in their own personalities may be overcome. Students, as creatures of God, are under His mandate both to learn and to apply all knowledge for the purpose of knowing and glorifying God. They should not be sheltered from non-Christian viewpoints, but must become able to evaluate all knowledge critically, to gain from that which is true and to discard error. Students should be aware of God's call on their lives and thus see their education as an opportunity to prepare for their life work, whatever those fields of endeavor may be.

## Implications for the Curriculum

In Christian education the curriculum is built upon the foundation that the historic Christian Faith is permanently true, and that it is the integrating factor of a truly Christian educational program. Since Christian education leads toward an understanding of God, mankind and the universe in their inter-relatedness, the curriculum will have a strong emphasis on both the Humanities and the Sciences, theoretic and applied, as well as a basic core of Biblical studies. The curriculum should lead students to grasp the foundations of learning so that they can live a life glorifying to God, confronting honestly and confidently the problems and challenges of new knowledge, and contributing to the welfare of society under God.

## Implications for Moral Discipline

Standards of moral discipline must be maintained according to the moral law of God which He has set forth in Scripture. Therefore discipline is to be exercised on the basis of God's Word. Discipline exercised in Christian love and firmness not only deters licentiousness, but also teaches in principle how to live under Christ's Lordship and how to live with other people on the basis of righteousness. Moral discipline must always be exercised in an attitude of helping the offender in the context of the doctrine of sin and its solution in Jesus Christ.

## Stated Aims of the College

Having formulated a sound basis for learning from a Christian perspective, we have chosen the following aims to guide progress toward our ideal.

- To help students to develop a usable understanding and appreciation of the cultural heritage of mankind through a study of the basic liberal arts subjects, presented from a Christian point of view.
- To apply Christian principles to the pursuit of knowledge by engaging and evaluating a wide range of intellectual and artistic works, including those that demonstrate the current broken and fallen nature of God's creation.
- To cultivate skills of communication in speaking, writing, and the fine arts, and the ability to evaluate what is communicated.
- To prepare students for service to mankind through certain intellectually-based vocations.
- To provide opportunities for students to build a foundation for study in graduate and professional schools.
- To give every student the opportunity to know the cardinal truths of the Christian religion and to consider the claims of Christ as Savior and Lord.
- To maintain an environment which will provide a pattern for wholesome, enjoyable Christian living, to show the application of Christian principles to the problems of personal and social life, and to offer preparation for leadership in Christian churches.
- To provide opportunities for the development of skills and interests which will contribute, in college and in later life, to physical and mental health through the satisfying and constructive use of leisure time.
- To prepare students for active participation and leadership in a democratic society, through experiences which will develop the ability to work with other people, and the spirit of loyalty and cooperation.
- To develop intelligent concern for the problems of the nation and the world.
- To cooperate with businesses, schools, and other community organizations in meeting special educational needs of the area.


## Statement of Commitment

In the light of our Christian philosophy of education and our stated aims as a college, we are accountable to God for the implementation of these corporate convictions in the educational process and in the lives of students, faculty, and staff.

Geneva College is founded upon a Biblical view of life and the world as expressed in evangelical and Reformed theology and set forth in the Foundational Concepts of Christian Education. We recognize that such convictions will at times bring the college into conflict with the values and direction of our contemporary society.

We commit ourselves consciously and wholeheartedly to offering Christian higher education designed for the whole life of the whole person.

## Consequently, we desire that our educational program . . .

- Foster breadth of learning through a study of the humanities, the social and natural sciences, and Biblical studies.
- Emphasize integration from a Christian perspective in the study of God, man, societies, and the universe in their interrelatedness.
- Provide our students with knowledge of the Word of God, and how the Word relates to them, their cultural heritage, other societies, and the created universe.
- Motivate and enable faculty and students to continue to learn and develop new skills.
- Offer preparation for effective vocational roles in society.
that our students . . .
- Be challenged to commit themselves to God, to respond to His calling for their lives, to discern their gifts, to develop their gifts in a godly manner, and to use their gifts in His service.
- Be assisted in striving for spiritual maturity that prepares for godly living in the midst of a secular culture.
- Be assisted in learning to live together in harmony and with enjoyment of individual diversities.
- Have opportunity to develop their physical, intellectual, social, cultural, and spiritual gifts in a supportive environment.


## and that our faculty and staff . . .

- Demonstrate Christian living and obedience in personal growth, in the interactions of college life, and in dedication to Christian calling and service.
- Seek an understanding and articulation of how the Word of God directs the search for the truth; pursue excellence in the performance of their work; and show concern for those under their care and instruction.
- Value the contributions of all members of the college community and support each other in their various tasks.
- Be motivated by a vision that the college has been founded upon the providential mercy of God and that their primary purpose is to serve Him within the worldwide company of Christian believers and the geographical area where God has placed the college.

We recognize that only God can revive and renew. We will, therefore, constantly examine our commitments and programs in light of His Word and the needs about us and will endeavor to value, support, and encourage each other in the Lord as we strive to fulfill this commitment in the life of the college.
(Adopted by Geneva faculty, administration, and Board of Trustees in 1982.)

## Student Outcomes

Education at Geneva College is firmly rooted in its Mission and Doctrinal Statements, Foundational Concepts of Christian Education, Aims, and Statement of Commitment. Relying on these statements as the appropriate points of departure, and acknowledging that our central interest is to understand the implications of a Christian worldview for all that we do, we desire that all students graduating from Geneva College will:

1) Worldview: Students can articulate the nature, strengths and weaknesses, and uses of worldviews, can use worldview analyses critically, articulate the critical elements of an evangelical, reformed Christian worldview.
2) Bible knowledge and Christian life: Students can articulate the essential Biblical truths of the Christian faith, have evaluated their own faith with respect to those truths, have considered the claims of Christ on their own life, and articulate their calling to participate biblically in relationships, family, church and vocation.
3) Communication: Students communicate clearly, responsibly, and with integrity in written and oral forms, and evaluate the written, oral and artistic communications of others based on the same criteria.
4) Liberal Arts and Critical Thinking: Students demonstrate value in developing the lifelong learning skills necessary to critically respond to world-shaping intellectual and artistic works, and complement those skills with lifelong habits that nurture physical, mental and emotional well-being.
5) Cultural Engagement: Students offer analyses of both historic and current causes and effects of contemporary cultural issues and consider active participation in civic life as shaped by principles of Biblical justice.
6) Professional: Students acknowledge that all vocations are arenas for honoring God and demonstrate competency in the essential skills, literacies, data, theory, and methods of their major field to a professionally recognized standard for a graduate and sufficiently for their vocational calling.
(Adopted by the Geneva College Academic Assessment Committee, 2010.)

## A Curricular Vision for Geneva College

Geneva's curriculum is serious business, for it is the primary means by which Geneva's mission is carefully and formally translated. Said another way, it is the foundation upon which our hopes rest that students might grow in wisdom to the end that their lives will honor Jesus Christ and signpost his kingdom in all of life for the rest of their lives.

These sentiments, of course, are not new. They are easily seen in the language of previous Geneva documents. For example, the Foundational Concepts state that "[Geneva's curriculum] endeavors to develop each student's capacity for the enjoyment of the world as God's creation, in all its cultural richness, realizing that all of life as a coherent whole is related to God and to his redemptive activity." In addition, the document entitled The Academic Calling of Geneva College, produced by the Panel of General Education several years ago, offers the following: "...we want graduates to leave Geneva with a vision for cultural redirection. Our world needs to hear the voices of articulate, modern day prophets that measure what is against what should be. We must also equip our students for daily faithfulness and for a vision of renewal closer to home, within reach of their everyday relationships and activities."

This document, A Curricular Vision for Geneva College, Spring 2008, is intended to reaffirm and to further explicate Geneva's historic educational commitments as contained in such documents. Like the Foundational Concepts that precedes it, this document must not be considered as the last word, but rather as a critical and significant testimony to the college's curricular intentions as it nears the end of the first decade of the $21^{\text {st }}$ century. Thus, by God's grace in Jesus Christ, and with a continuing desire to be attentive to the Holy Spirit, the faculty of Geneva College enthusiastically affirms and embraces the following themes-in humility and with joy-as a scaffolding for Geneva's curriculum, and as a common context to animate our personal and institutional educational callings.

## Coherence

Touting a coherent curriculum for any reason may seem unusual if not anachronistic within a postsecondary landscape in which the center not only no longer holds, but one in which there is arguably no longer a center or a whole that matters at all. Balkanized curricula, departments, and majors populate the current educational environment; specialization rules. In contrast, we believe that students should graduate from Geneva believing that they have just completed a "curriculum"-in effect, "a course" that is unmistakably characterized by its cohesiveness and integrity. Such an educational approach aspires to be cross-interdisciplinary (or inter-disciplinary) in both its entirety as well as in its parts.

This is not to suggest that a Geneva education will lack intense, specialized inquiry in disciplinary fields or curricular multidimensionality as such. It is simply to highlight that ours is a conscious desire to help students to see connections among parts, and to assist students in understanding the coherence of God's world as they pursue various parts of God's world in the form of majors, minors, concentrations, and individual courses. To do otherwise is to downplay our Christian testimony that God's world is inseparably both inextricably whole and magnificently multifaceted.

## Christian Perspective

A perspective is a foundation for understanding what to make of things and, ultimately, how to live. Although one's perspective is never altogether consistent, conscious, or complete, it nevertheless functions as a discriminating lens through which one sees, interprets, judges and lives life. As regards education at Geneva College, we affirm that our personal and collective perspectives are rooted in historic Christianity. That is, the story of God's sovereign, restorative love for the cosmos-as revealed in the Bible-is the privileged, self-conscious starting point, or perspective, from which we strive to make sense of all things, and to live life faithfully. Accordingly, our personal and collective educational efforts are neither neutral nor glib, but are rather conscientiously sourced and shaped in response to the Lord of all, Jesus Christ.

## World Affirming

College and university education routinely includes the study of large cultural artifacts such as businesses, music, governments, and schools. Similarly, it involves the exploration of more specific topics such as social stratification; quantitative analysis; childhood development; the mechanics of deformable bodies; the Renaissance; and, cell reproduction. We also explore these subjects at Geneva-and a world full of other subjects-but we do so because we believe that the world is the particular context of God's redeeming work; the world is God's kingdom! A commitment to this theme presses us to consider the academic and practical contributions of many others-those who are self-consciously Christian AND those who are not self-consciously Christian-in coming to understand God's world more clearly and more fully.

## World Critical

A particular element of the Christian perspective which we affirm is that sin persists in God's world. In fact, we contend that sin pervades God's world; it adversely affects everything, including our own thinking! The Bible also indicates that the particular ways in which sin is manifest in God's world are not always altogether obvious. The implications for our educational efforts, therefore, are compelling. We must help students consider and discern ways in which sin "shows up" in the subjects that we study, in the ways in which we strive to make sense of things, and in the lives that we live. This effort most assuredly must be undertaken without hubris and with great care, in full recognition that Christians are not somehow immune to errors in thought, word, or deed simply because they pledge fidelity to Jesus Christ.

## World Responsive

We believe that a coherent, multifaceted effort that will help students to develop cognitive discernment skills based on a Christian perspective is not only highly desirable but vital to our educational mission. Such an effort, however, is also incomplete. That is, our educational efforts must also be entirely "practical" in that we assist students in developing particular skills and literacies that appropriately accompany college education in general and respective fields of study in particular. As important, a commitment to this theme necessitates that we wholeheartedly embrace the challenge of equipping students with a resolve for responding thoughtfully and compassionately to the pressing needs of God's world in local, national, and/or global contexts.

## Calling and Callings

Broadly speaking, calling may be a helpful tool for helping students to consider that various "voices"-past and presentbid humans follow faithfully. In specific New Testament terms, "the call" comes from the One who cuts across our paths (cf., Emmaus road), Jesus Christ. We believe that this "general calling" is sine qua non for all else in life, for in it we are called by God to hear, to believe, to follow, to abide, and to live abundantly.

Callings, in turn, represent particular arenas of human life within which the call of God is to be pursued, expressed, and lived. We are committed, therefore, to help students understand God's call to faithfulness more fully, and simultaneously to prepare them to consider-both conceptually and practically-what lifetimes of faithfulness might look like in common areas of human endeavor such as work/career, citizenship, church, relationships/family, and, of course, learning/education.

## Intercultural Reconciliation and Citizenship

The biblical account is clear that God's kingdom is now and will be in the age to come comprised of peoples from every tribe, tongue, and nation. Proclaiming Jesus as Lord of all peoples, nations, and things powerfully affirms a world-wide if not cosmic kingdom, not one that can be "owned" or domesticated by a particular race, people, nation, or church. We humbly admit, however, that we have not been immune from finding ourselves-personally and corporately-in the latter category.

A commitment to this theme represents our resolve to prepare students as agents of reconciliation who more fully understand faithful and active citizenship in God's kingdom. This resolve cannot be limited to cognitive assent alone, but must be reflected in the warp and woof of routine educational practices, offerings, and efforts-in the books that faculty
members choose, in the composition of the student body, in curricular offerings, and in interpersonal contact, to name but a few examples.

## Attention to Place

Geneva is "placed" in Beaver Falls, in Pennsylvania, in the United States, and in North America. Geneva is likewise "placed" by things-powerful things-such as its Protestant and reformed heritage, the $21^{\text {st }}$ century, and consumerist culture. Using yet another lens of place, students are placed by year in college, major, relative academic preparedness, and the like. In affirming this theme, we desire to be keenly cognizant of the numerous contexts that have shaped and continue to shape God's world, the college, other humans, and us. A commitment to this theme also challenges us to consider "place" as the particular context within which God calls us to undertake our educational efforts-both institutionally and personally.

## Artful Pedagogy

Any chance of accomplishing-even modestly-the preceding themes will require artful pedagogy. In utilizing this somewhat unusual term, we do not mean to minimize the critical importance of Geneva professors knowing their subjects well; seeking to stay abreast of developments in their respect fields and across fields; diligently and routinely preparing well for class; and, always seeking to improve and to expand their pedagogical repertoire. To the contrary, a Geneva education must continue to be known for its excellent teaching as predicated upon these routine practices.

A commitment to this theme also encourages an ongoing re-imagining of teaching at Geneva-interdisciplinary studies; team-teaching; instructional technology and media; off-campus study; and, service-learning are just a few possibilities. Perhaps more importantly, however, we resolve to redouble our efforts to view all pedagogy in the service of nurturing Geneva students to the end that they become more wise, coming to see their studies as critical and relevant resources in responding to God's gracious invitation to participate faithfully in the here and coming shalom of his kingdom.

We recognize that the themes above are most accurately identified as "inputs" rather than as "student learning outcomes." Given the current educational environment, this may seem unfashionable, if not unwise. We believe, however, that our times require great clarity regarding the particular characteristics of the curricular project to which we aspire. Further, we believe that it is quite clear from the themes summarized above not only what hoped-for student outcomes might be, but who the faculty, staff, and administrators are that we must attract, retain, and support in the days ahead. May the Lord be near as we seek to bring him honor-at such a time as this—in the part of his kingdom called Geneva College. Pro Christo et Patria.
(Adopted by the Geneva College Faculty Senate, March 26, 2008)

## GENEVA'S HERITAGE

Geneva was an idea long before its founding in 1848. This was expressed as early as 1836 by James Stewart Johnston, keeper of a general store in New Richland, Ohio, where the Scots-Irish of the community came to buy tea, calico, gun powder, and utensils, and to exchange news and views on everything from seed corn to the Kingdom of heaven.

These people liked the idea of a Christian liberal arts college, and in the winter of 1837 Johnston's brother, the Reverend John Black Johnston, pastor of the Miami Reformed Presbyterian Church, began a Latin class in his study at Northwood, Ohio. There were seven young men at first, but as the class grew and was opened to young women it moved to the Reformed Presbyterian Church and then to the $\log$ school in the village. More than an idea now, this beginning was taken over by the Lakes Presbytery of the Reformed Presbyterian Church, which in 1847 authorized Pastor Johnston to build a college with such resources as he could gather. Within five months he had built a five-room brick building, and on April 20, 1848, with the assistance of two young Milligan brothers, theological students from Westmoreland County, he opened the college.

First called Geneva Hall in honor of Geneva, Switzerland, early center of the Reformed faith verbalized by John Calvin, Geneva College became the official name in 1873. The college moved to Beaver Falls in 1880, building on land donated by the Harmony Society.

## Institutional Control

The college, established by the Reformed Presbyterian Church of North America, is governed by a Board of Corporators elected by that church. The Board of Corporators elects a Board of Trustees who are responsible for its management and administration (See page 193).

## Denominational Commitment

The Reformed Presbyterian Church of North America traces its historical roots to the Covenanting traditions of Scottish Presbyterians. The denomination has had a separate and continuing existence in the United States since 1774, and holds to a summary of the historic Christian faith as contained in the Westminster Confession of Faith. Following the standards of the Reformed Presbyterian Church, Geneva College believes in biblically conservative Christianity and emphasizes Christ's Kingly authority over all things. The specific application of this Biblical perspective to education has been expressed in the Foundational Concepts of Christian Education adopted by the Geneva College Board of Corporators and Board of Trustees in 1967 (See page 193).

The Reformed Presbyterian Church seeks through Geneva College to serve its own constituency, the world-wide company of Christian believers, and the local community. In the recruitment of students, the college makes a deliberate effort to accommodate students holding a Biblical view of life and the world.

## ACADEMICS AT GENEVA

At Geneva, we believe that humans find their ultimate meaning and reality in God and in His magnificent creation. We are created to be near God. To use the language of Genesis, we are made in God's Image, in His likeness.

We believe that the best education is education that acknowledges this fundamental starting point. We are God's people, created in His image, horribly disfigured by $\sin$, but completely and wonderfully redeemed by Christ's saving work, and eagerly waiting for the day when God will wipe away every tear - Creation, Fall, Redemption, Consummation.

We weave this fundamental truth through Geneva's entire educational experience. From Summer Preview -- where student and parents are introduced to life at Geneva -- through Commencement ceremonies -- where we celebrate the academic achievement of our students -- and all that lies in between, we work at integrating a Christian understanding of life into every academic discipline, into every course, into every residence hall - indeed, into every heart.

All of our faculty and staff are committed Christians. All of our faculty are experts in their field of study. An overwhelming percentage of our faculty has the highest degree possible in their field and many have considerable applied work experience. We have education faculty who have been teachers and principals, business faculty who have worked in large and small organizations, and English faculty who are published writers. We have Bible faculty who have been pastors, a linguist who has worked with Wycliffe, and history faculty who have and are writing about important elements of history. Likewise, we have student development staff that work with students outside of the classroom in a variety of intentional ways to encourage their development as committed and thoughtful Christians.

Geneva's theological perspective is reformed and presbyterian. One of the central tenets of reformed theology is that God is sovereign over all of life. We believe that God is sovereign over accounting and engineering just as much as he is sovereign over Bible and ministry, and that God is interested in biology and education just as much as he is interested in missions.

## Accreditation and Membership

Geneva College is accredited by the Middle States Association of Colleges and Schools and maintains institutional membership in the following:

American Association of Colleges for Teacher Education<br>Association of Reformed Institutions of Higher Education<br>Beaver County Council of Higher Learning<br>Council of Christian Colleges and Universities<br>College Entrance Examination Board<br>Council for Higher Education Accreditation<br>Council of Independent Colleges<br>National Association of Independent Colleges and Universities<br>Pennsylvania Association of Colleges and Universities

The Chemistry Program is approved by the American Chemical Society for professional training in chemistry.
The General Engineering Program (BSE) is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET).

The Business Program is accredited by the Association of Collegiate Business Schools and Programs (ACBSP).
The Cardiovascular Technology Program ("invasive cardiology") is accredited by the Commission for the Accreditation of Allied Health Education Programs.

The Teacher Certification Program is approved by the Departments of Education in Pennsylvania, Ohio, New Jersey, New York, and other states.

The Master of Arts in Counseling Program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP).

## Guide to Program Information

## Explanations

Geneva's academic programs are grouped within departments, each of which is responsible for one or more areas of study indicated in its title. In this catalog, departments are introduced in alphabetical order. Listed under each department are the requirements for its majors and minors.

An alphabetical list of majors and minors with page references occurs on page 30 .
Courses are identified by three-letter code (ACC for accounting, EGR for engineering, PHI for philosophy, etc.) and a three-digit number that indicates roughly the level of instruction ( 100 for first year, 200 for second, 300 for third, etc.), followed by an abbreviated course title. Course descriptions are in alphabetical and numerical order beginning on page 126.

## Definition of Terms

Audit-Attendance in a class without formal participation is allowed by registering for the class as an audit. The cost is half of the regulation hourly tuition and no credit is earned nor is a grade given.

Core requirement-A course or courses that must be completed by all students receiving a degree. The core requirements are numbered and described on page 15.

Corequisite-A course that is required to be taken concurrently with another course.
Course-A program of study involving regular classes or laboratories.
Credit—Recognition given for study completed, usually expressed in credit hours.
Credit hours-Units of credit based upon the number of credit hours in class per week for a semester. The number of credit hours required for a degree is explained on page 30 .

Credit point-Number value assigned to the grade a student receives in each course. See page 22.
Grade point average (GPA) - Total credit points divided by total credit hours graded. The GPA is a measure of the student's level of achievement that helps to determine individual progress and eligibility for special honors or privileges. See references on page 22.

Electives-Courses chosen by a student to complete total credit hours required for a degree but not needed to meet either core or major requirements.

Interdisciplinary-Involving two or more departments. The term is applied to a course combining subject matter or instruction from more than one department, or to a major that includes courses from more than one department.

Intensive course-A course offered in a special format that condenses a semester's work into a short period, often just a week, with full-time and concentrated work.

Major-A primary field of study. Each student must complete requirements in one such field. See page 30.
Minor-A secondary field of study, not required for graduation. See page 31 .
Options-A group of courses from which one or more must be chosen to meet some requirement.
Prerequisite-Another course that must be completed or any condition that must be fulfilled before enrollment in a course.
Semester-A four-month term, usually extending from the last week of August through the third week of December, or from the second week of January through the first week of May. The college's calendar for the next year is published at the beginning of this catalog.

## Effective Date of the Catalog

The most current version of the college catalog is available on-line. The catalog was first published on-line in 2006-2007. Previous versions, which were published every two years, are available in print in the library and the registrar's office.

The college catalog is designed to communicate clearly the information needed by students, faculty, and prospective students. The most recent college catalog if published in August. An addendum containing significant changes or updates to catalog content may be published during the academic year.

In order to graduate, students must meet the graduation requirements in the catalog in effect at the time that they entered Geneva, provided they complete their work within seven years. Adjustments will be made on an individual basis for completion of courses no longer offered. Students who are still at Geneva beyond seven years from first enrollment are subject to the requirements of the most current published catalog. The college will consider exceptions to these catalog requirements on a case-by-case basis.

The provisions of the catalog should not be regarded as a contract between any student and the college. Graduation requirements, curriculum content and regulations are constantly being reviewed and revised. Policies and regulations are subject to change at any time. Specifically, tuition increases generally take effect at the beginning of the first summer session. The college reserves the right to make changes to any part of the college catalog if circumstances necessitate such changes. If these changes create undo hardship for the student, an appeal may be made to the dean of faculty and administration.

## Degree Requirements

## General Requirements for Bachelor's Degree

1) Removal of all entrance deficiencies. See page 184.
2) Minimum of 126 semester hours.
3) Completion of required core courses. See below.
4) Fulfillment of requirements for at least one major. See use of majors on page 30 .
5) Enrollment at Geneva or one of its affiliate programs is required for at least 12 credit hours of a senior's final year.
6) Fulfillment of the college chapel requirement
7) Grade point average of 2.0 or above overall and in the majors and minors.
8) A minimum of $50 \%$ of the required credit hours in the core, major, and minor must be earned at Geneva.
9) Payment of all financial obligations to the college.

## Bachelor's Degree-Core Requirements

Students are strongly encouraged to take these core courses during the recommended years whenever possible. A minimum of $50 \%$ of the required credit hours in the core must be earned at Geneva. To accomplish our goal of the integration of faith with an introduction to the liberal arts, we encourage students to take these core requirements at Geneva College. However, Geneva welcomes students who wish to transfer credits from other institutions. Policies governing transfer credit can be found starting on page 186 .

1) Freshman experience-One hour. SSC 101 Learning and Transition. Required of all freshmen but not transfer students who have 12 or more credit hours.
2) Biblical studies-Nine credit hours. BIB 112 and 113 Biblical Introduction during freshman or sophomore years. BIB 300 Foundations of Christian Thought during junior or senior years. Based on testing, students with superior Bible knowledge will be permitted to substitute BIB 151 and 152 for BIB 112 and 113. Philosophy majors may substitute PHI 310 for BIB 300 by permission of the Department of Biblical Studies, Christian Ministries, and Philosophy.
3) Communications-Six credit hours. ENG 101 Composition and COM 101Principles of Communication. The typical student takes these courses during the freshman year. Upon recommendation of the English department, one of the following courses may substitute for ENG 101: ENG 102 Academic Research and

Writing; ENG 111 Topics in Contemporary Writing; ENG 191 Argumentative Writing; ENG 205 Advanced Composition; or ENG 311 Technical Writing. The ENG 101 (or substitute) requirement is met only with a grade of C- or better. Students who have the high school equivalent of COM 101 may substitute: COM 160 Interpretive Reading; COM 215 Debate; COM 140 Radio Production Workshop; or COM 310 Public Speaking.
4) Humanities- 12 credit hours. HUM 103 Invitation to the Humanities, HUM 203 Beauty, Freedom, and Truth, and HUM 303 Perspectives: Faith, Culture, Identity and HUM 304 Focused Options in Humanities. Students who take HUM 300 ( 9 credits) by participation in the Rome Program may substitute this for HUM 203, HUM 303, and HUM 304.
5) Natural Science-Eight to ten credit hours. SCS 110 Introduction to Natural Science, plus either one other laboratory natural science or two non-laboratory natural science courses; or 12 credit hours of laboratory science in at least two different natural science fields.

| Non-laboratory | options: |
| :--- | :--- |
| BIO 101 | Topics in Biology |
| CHM 100 | Introductory Applied Chemistry |
| CHM 160 | Chemistry in Art |
| PHY 160 | Introduction to Acoustics |
| PHY 250 | Observational Astronomy (prerequisite MAT 161) |
| SCS 105 | Environmental Science |
| SCS 201 | Astronomy |
| SCS 215 | Earth and Space Science |

Laboratory options (or any other four-hour laboratory course):
BIO 111 Introduction to Environmental Biology

BIO 112 Introduction to Cellular Biology
CHM 111 General College Chemistry
CHM $221 \quad$ Organic Chemistry 1
PHY 181 General Physics I
PHY 182 General Physics II
PHY $201 \quad$ College Physics I
PHY 202 College Physics II
6) Physical education-Two credit hours. PED 103 Physical Fitness plus one activities course from the following: PED 101, Varsity Sport, or Marching Band. Military veterans earn two PED credit hours by presentation of separation papers.
7) Social science-Six credit hours from the following:

ECO 100 Fundamentals of Economics or ECO 211 Micro Economics or ECO 212 Macro Economics
HIS 150 Survey of American History or HIS 250 US I: Colonial or HIS 251 US II: $19^{\text {th }}$ Century or HIS 252 US III: $20^{\text {th }}$ Century
POL 151 American Government
PSY 201 Introduction to Psychology
SOC 201 Sociological Imagination
8) Political science-Three credit hours. POL 352 Great Issues in Politics is required of all students and must be taken at Geneva College during the junior or senior year. Prerequisites: successful completion of BIB 112 and 113; HUM 103, 203, and 303 and junior or senior standing (completion of 60 credit hours).

## Associate's Degree-Core Requirements

Freshman experience-One credit hour. SSC 101 Learning and Transition. Required of all freshmen but not transfer students with 12 or more credit hours.
2) Biblical studies-Six credit hours. BIB 112 and 113 Biblical Introduction.
3) Communications-Six credit hours. ENG 101 Composition and COM 101Principles of Communication. The typical student takes these courses during the freshman year. Upon recommendation of the English department, one of the following courses may substitute for ENG 101: ENG 102 Academic Research and

Writing; ENG 111 Topics in Contemporary Writing; ENG 191 Argumentative Writing; ENG 205 Advanced Composition; or ENG 311 Technical Writing. The ENG 101 (or substitute) requirement is met only with a grade of C- or better. Students who have the high school equivalent of COM 101 may substitute: COM 160 Interpretive Reading; COM 215 Debate; COM 140 Radio Production Workshop; or COM 310 Public Speaking.
4) Humanities-Six credit hours from approved department list. Most often this is HUM 103 and 203.
5) Natural science-Four credit hours. SCS 110 Introduction to Natural Science or any other laboratory science course.
6) Physical education-One credit hour. PED 103 Health and Fitness. See note under physical education above.
7) Social science-Three credit hours. One course from the social science list above.

## Core Curriculum

## Rationale

The Geneva College core provides the framework for a student's education. The core curriculum is rooted in the Foundational Concepts of Christian Education (page 5) and helps to achieve the college's aims and outcomes, (page 7) by providing a common core of liberal studies intended to promote growth in the student's knowledge, skills, understanding, and attitude. The parts of the core relate to each other in a network of intentional support, application, reinforcement, and development. In a similar way, major programs and electives are designed to reinforce and build upon the skills, knowledge, and perspectives developed in the core. As a result of this total educational experience, students are encouraged to realize and embrace the Biblical concept of servanthood and to recognize their calling as stewards of all that God has granted to their care: their personal lives, their dealings with others, and their treatment of the whole creation. In attitude, understanding, leading and serving, they should exhibit a commitment to honor God.

## Core Outcomes

Diligent study of the core curriculum should enable the student to become:
I) A biblically spiritual person

Geneva College's aim is to give every student the opportunity to know the cardinal truths of the Christian religion, to consider the claims of Christ as Savior and Lord and to encourage students to embrace a life of glorifying, enjoying and serving God.

As outcomes students should:

1. Know the God of Christianity, His expectations, and His gifts to us.
2. Have skill in applying Biblical truth to contemporary society.
3. Know the essential Biblical truths of the Christian faith, evaluate their own faith with respect to these truths, and personally consider the claims of Christ as Savior and Lord.
4. Acknowledge the relevance of the church to the Christian faith, examine their motivations for involvement in a worshiping community, and actively participate in a Christian church.
II) A creational person

Geneva College's aims are:

1. To apply Christian principles to the pursuit of knowledge by engaging and evaluating a wide range of intellectual and artistic works, including those that demonstrate the current broken and fallen nature of God's creation.
2. To enable students to cultivate skills of communication in speaking, writing, and the fine arts, and to develop the ability to evaluate what is communicated.

## As outcomes students should:

1. Be able to apply the insights of science, philosophy, and Christianity, to know, understand, and properly use the natural world and technology.
2. Understand, value, and critically respond to intellectual and artistic works, scientific ideas, and other cultural influences that have shaped and continue to shape the world.
3. Be skilled in problem solving and researching, organizing, and analyzing information and ideas.
4. Communicate clearly, responsibly, and with integrity in written, oral, and nonverbal forms, and evaluate the written, oral, and artistic communications of others based on the same criteria.
5. Develop and use imaginative and expressive skills.
III) A communal, serving person

Geneva College's aims are:

1. To prepare students for active participation and leadership in society, through experiences which will develop the ability to work with other people, and the spirit of loyalty and cooperation.
2. To show the application of Christian principles to the problems of personal and social life, and to offer preparation for leadership in Christian churches.

## As outcomes students should:

1. Understand and consider the application of Biblical principles of leadership.
2. Know the communities to which we belong: personal, political, social, cultural, economic, and intellectual.
3. Actively participate in civic life and provide leadership that is shaped by principles of Biblical justice.
4. Understand that all vocations are arenas for honoring God through the development and utilization of gifts, in mutual dependence, and by meeting the needs of others.
IV) A global person

Geneva College's aims are:

1. To develop intelligent concern for the problems of the nation and the world.
2. To help students develop a commitment to equity and justice among all persons since they are created in the image of God and a commitment to bring the critique and standard of the Bible to bear upon all cultures.

## As outcomes students should:

1. Know of other cultures.
2. Be skilled in interacting with other cultures and evaluating them from a Biblical perspective.
V) A renewal person

Geneva College's aim is to help students to develop a usable understanding and appreciation of the cultural heritage of mankind through a study of the basic liberal arts subjects, presented from a Christian point of view and with attention to implications for reformation and renewal.

## As outcomes students should:

1. Know of the past and it's bearing on the present and the future.
2. Know the processes of change, reform, and renewal of the individual and society.
3. Possess skill in citizenship and social reform from a Biblical perspective.
4. Identify and evaluate points of coherence and conflict between a Christian worldview and other worldviews.
5. Offer thoughtful analysis of the causes and effects of contemporary issues in their local and global contexts and present and evaluate possible solutions.

## VI) An integrated person

Geneva College's aims are:

1. To provide opportunities for the development of skills and interests that will contribute, in college and in later life, to physical and mental health through the satisfying and constructive use of leisure.
2. To help students develop as whole persons with interrelated physical, emotional, intellectual, aesthetic, and spiritual dimensions.

## As outcomes students should:

1. Cultivate skills, interests, and habits that nurture physical, mental, and spiritual health both in leisure and in work.
2. Work skillfully with people in interpersonal and socially effective ways.
3. Apply Christian principles as they address personal and interpersonal problems.

## Majors

Every four-year degree requires the completion of a major and a concentration of study in one field. A student must maintain a 2.0 grade point average for their major courses. A minimum of $50 \%$ of the required credit hours in the major must be earned at Geneva. Whenever the general and major course requirements involve fewer credit hours than needed for a degree, the student may choose a second major, one or more minors, or elective courses. For a complete list of majors, see page 30 .

## Independent Major - BA or BS

Because the departmentally based majors as described above may not always meet the unique needs of some students, this major allows a student to design from existing courses a program of study that is valid academically and meets particular goals.

A student may plan an independent major any time before the end of the fall semester of the sophomore year. In order to gain approval, the student plans a combination of courses that will fulfill his or her educational objectives and secures the endorsement of a faculty member willing to serve as adviser. This plan along with a transcript, a list of the desired major courses, rationale for the proposal, and a timetable for completing the program is then presented to the academic dean for final approval. Independent major IDM 495 may be included in the final semester of the program. Students must complete an independent major request form that can be obtained from the registrar's office.

Some students have included in their program a semester at another institution that specializes in their area of interest or overseas or special educational experiences.

Students contemplating the independent major should begin early to complete the core requirements listed on page 15 , so that in their last two years they may pursue their major interests. Inquiries about this program should be directed to the student's adviser.

## Minors

Though not required for graduation, minors are offered to provide limited concentration in a field. A student must maintain a grade point average of 2.0 in the minor. A minimum of $50 \%$ of the required credit hours in the minor must be earned at Geneva. For a complete list of minors see page 31.

## Practicum, Special Study, Internship, Honors Courses, Independent Study, Specialized Summer Courses

Most majors include special study opportunities that provide flexibility for students beyond the regular structured courses. This section is meant to describe these courses and to prevent abuses such as attempting to register retroactively (following the experience) and the situation where there is little planning or development of student requirements for the class. The following course numbers, titles, and descriptions apply to every department offering them.

Students interested in any of these courses must develop a course plan in consultation with a faculty member prior to the beginning of the course. In turn, students then must complete and submit the required paperwork to the Registrar. Students may not register for these courses retroactively.

Acceptable personal and professional qualities and habits are required for field and internship placement. When it is determined that deficits exist which impede the student's ability to successfully complete any type of fieldwork or internship experience, remedial assistance may be recommended. Because many qualities affect the field experience process and success, a student can be evaluated on non academic performance issues which may include adherence to ethical standards, personal maturity, motivation, dependability, and personal/psychological growth. Significant concerns can lead to the college decision to prohibit the student from participating in fieldwork or internship. A student may also be asked to participate in some form of assessment.

292 Practicum (1-4) The practicum is an introductory, hands-on experience in an applied area, with guidance from a faculty member or other professional. The practicum should be connected to the mission and objectives of the department. The student outcomes and requirements will be generated with and assessed by a faculty member. A student can enroll in a maximum of 4 credits with no more than 2 credits per semester.

491 Special Study (1-3) A seminar or directed study on an announced topic or set of topics. Credit specified at registration. Repeatable for credit with a new topic.

493 Internship (1-12) A work-study type project either on or off campus, designed to expose the student to an actual workplace experience. Undertaken with the consent, regular guidance and direction of an instructor qualified in the area, and with written permission of the instructor and department chair. A student should spend 45 hours at the workplace site for each semester-hour credit. Internships used for elective credit may be taken credit/no credit, but those taken for major or
minor requirements must be letter-graded. Normally, internships are limited to juniors and seniors with at least a 2.5 GPA in courses taken in the department in which the internship is taken.

494 Honors Courses (1-3) Specialized study of an area not covered by a regular course. Prerequisite: honors scholar standing or membership in Alpha Chi, and approval by the instructor and the honors program coordinator.

495 Independent Study (1-3) Individualized advanced study, research, or project development in a clearly defined and limited area not covered by a regular course. The work should be primarily initiated by the student but undertaken with the consent, regular guidance, and direction of an instructor qualified in the area. Prerequisites: junior standing, a GPA of 2.5 or above in departmental offerings, and approval by the instructor and department chair.

499 Specialized Summer Courses (1-4) Experience-oriented group study, usually of an experimental or innovative nature, and frequently involving off-campus activity or travel abroad. Offered during the summer sessions. Credit formula: approximately one week (or 50 hours) per hour of academic credit. Not applicable toward general or major requirements unless specifically approved for that purpose. Grading system varies.

## Limitations

The following courses may be repeated, but only eight credit hours will count towards a bachelor's degree and four credit hours maximum for an associate degree: COM 200, COM 201, COM 202, COM 203, COM 204; EDU 220; ENG 221, ENG 223; HMN 491; MUS 212, MUS 213, MUS 214, MUS 215, MUS 216, MUS 218, PED 104.

Courses numbered under 100 (i.e., 095, 096) do not earn credit for graduation.
No more than two semester credit hours in the required PED 101 and PED 103 Physical Education can be applied toward any degree.

Maximum credit hours accepted in transfer are described on page 185.

## Classification of Students

In determining each student's classification, all credit hours applied toward graduation requirements are counted.

| Freshman | $0-27$ credit hours |
| :--- | :--- |
| Sophomore | $28-59$ credit hours |
| Junior | $60-89$ credit hours |
| Senior | 90 credit hours or more |

## Academic Policies

## Registration

New students and transfer students receive registration materials via the Geneva website and are encouraged to seek counsel from faculty advisers or the registrar during orientation sessions or by special appointment or correspondence. Late in each semester, enrolled students prepare schedules using Web registration for the following term in consultation with faculty advisers.

Late registration is permitted up to the beginning of the second week of day classes or the second meeting of an evening class.

## Drop Policy

If it becomes necessary to drop a class, a student should talk with his/her advisor, get a drop slip from the Registrar, have it signed by the advisor and the course instructor and return it to the Registrar before the drop date for the semester. The dean of student development or dean of faculty and administration may also be consulted for assistance. Students should not drop courses without talking to their advisor, as dropping below 12 credits can negatively impact financial aid, athletic eligibility, insurance coverage, and/or the timely completion of academic requirements.

Courses dropped within the first two weeks of the semester will not appear on the student's transcript. After two weeks, a course may be dropped with both the professor's and advisor's signatures, but it will remain on the transcript with a "W" (withdrew) grade. See the college calendar for the final day to drop a class. First semester freshman may drop a single course up to three weeks after the standard drop date. Grades of "WX" (withdrew before grade could be determined), "WP"
(withdrew passing), or "WF" (withdrew failing) are submitted by the instructor and are entered on the student's permanent record but will not affect the student's GPA.

Courses can be dropped and added online via Web Registration through the first week of the semester. After this date students can only drop classes at the registrar's office.

## Class Load

The normal maximum is 17 credit hours per semester. The following courses are not included in this limitation and may be taken beyond the 17 hour limit without special permission: COM 200, 201, 203, 204; EDU 220; ENG 221, 222, 223; HMN 491; MUS 212, 213, 214, 215, 216, 218; PED 101, 102, 104. Additional credit hours in other courses beyond the 17 credit hours limit are permitted with the approval of the student's academic adviser.

Charge for additional credit hours is the regular per hour tuition rate (see page 189).

## Finals Week Policy

Final exams must be taken at their scheduled times, which are announced in writing at the beginning of each semester. Students desiring an exception must submit a written request to the faculty member(s) involved. Exceptions will only be made in the case of serious illness or the death of an immediate family member. Reasons such as plane schedules, availability of flights, and rides leaving early are not acceptable.

Students having three or more final exams scheduled in one day may arrange to have one of them moved to a different time during finals week. If the student is unable to arrange this change with the instructor(s), he/she should seek assistance from the dean of faculty and administration. This should be done at least ten days prior to the beginning of finals week.

## Class Attendance

## General Policy

Students' presence and participation in the classroom is an integral component of the opportunity and responsibility that attends membership in a community of Christian learning. As such, students should attend all of the scheduled class sessions of each of their courses.

## Excused Absences

When appropriate documentation is provided to the Student Development Office, students will be excused from class without penalty under any of the following circumstances: a family member's serious hospitalization or death; personal physical or emotional illness; military or jury duty; or, adverse weather (please see the Adverse Weather statement below).

In addition, students will be excused from class to participate in the following, college-sponsored activities:

- Performances, varsity and junior-varsity scrimmages against external programs and games, including travel time; make-up games that were postponed due to inclement weather; and official tournament games, both preand post-season.
- Class requirements such as field trips and labs. These must be approved through the department chair and the dean of faculty and administration.
- Internships and field placements which are required for a major or academic program. These should be arranged in such a way that they do not conflict with other classes for which the student is registered or is required to take.
- Educational travel, including professional meetings, touring groups, and missions trips. These must be approved through the department chair and the dean of faculty and administration.
- Campus work-related training that is directly relevant to a student's campus work assignment. These must be approved through the department chair and the dean of faculty and administration if the assignment is an academic program area and through the office of the vice president for academic affairs in all other cases.

Several other comments regarding these particular activities are warranted. First, practices and rehearsals are not considered excusable absences. Second, faculty, coaches, and staff should take great care in the scheduling process to prevent students from having to miss multiple classes. It may even become the case where it will be wise for a faculty member, coach, or staff member to encourage a student not to participate in a particular activity if a student's academic progress may be unduly jeopardized by doing so. Third, faculty, coaches, and staff should be proactive in encouraging students to report an excused absence in advance to the faculty members(s) of the class(es) that they miss, and in
completing any missed assignments/exams. And, fourth, students should take the initiative in communicating an excused absence clearly and in advance to the faculty member(s) of the class(es) that they miss, and in arranging for the completion of any missed assignments/exams.

## Adverse Weather

From time to time it is necessary to close the college and to cancel classes due to inclement weather. On other occasions, there may be adverse weather conditions, but they are not sufficient to justify cancellation of classes. In such cases, commuting students who honestly believe that travel to campus may be hazardous may choose not to travel to campus. These absences will be considered as "excused," provided that the student contact the professor within 24 hours of the missed class.

## Unexcused Absences

Unexcused absences are those absences for any reason other than those listed above under the "Excused Absences." Faculty members may decide whether or not to penalize students for unexcused absences. Such penalties, if any, will be clearly noted in the course syllabus. Faculty members have no obligation to allow students to complete missed assignments/exams for unexcused absences.

## Grading System

| Grade | Evaluation | Points per hour |
| :--- | :--- | :---: |
| A+ | Excellent (Plus) | 4.0 |
| A | Excellent | 4.0 |
| A- | Excellent (minus) | 3.7 |
| B+ | Good (plus) | 3.3 |
| B | Good | 3.0 |
| B- | Good (minus) | 2.7 |
| C+ | Satisfactory (plus) | 2.3 |
| C | Satisfactory | 2.0 |
| C- | Satisfactory (minus) | 1.7 |
| D+ | Poor (plus) | 1.3 |
| D | Poor | 1.0 |
| D- | Poor (minus) | .7 |
| F | Failure (no credit) | 0 |
| IN | Incomplete |  |
| IP | In progress |  |
| CR | Credit (CR/NC option) |  |
| NC | No Credit (CR/NC option) |  |
| WX | Withdrawal before judgment |  |
|  | could be formed |  |
| WP | Withdrawal, passing |  |
| WF | Withdrawal, failing |  |
| AU | Audit (no credit) |  |

## Grade Point Average (GPA)

The grade point average is the number of grade points earned divided by the semester credit hours receiving grades A through F. Each semester a term GPA and a cumulative GPA are calculated and reported on the grade report. These two averages are used to determine the student's academic status and eligibility for various offices, honors, or courses and for eligibility for athletic competition.

Credit hours graded F are included in the computation of the GPA but do not count toward graduation requirements. Repeating a course which was graded F does not increase the credit hours used to determine the GPA but will increase both grade points and credit hours toward graduation according to the new grade earned.

Repeating a course for which credit has been granted will not increase the credit hours toward graduation, but the new grade earned may be substituted for the old in determining grade points. It is the student's responsibility to notify the registrar if a course is repeated.

## Incomplete Grade

An incomplete grade is awarded only when a student has been unable to complete the work due to circumstances beyond his or her control. The student must be doing satisfactory work within four weeks of the end of the semester. The incomplete grade is considered temporary and the student must make up the work without repeating the course. The incomplete grade must be replaced with a letter grade by the date specified by the instructor or within eight weeks of the semester's end, whichever date comes first. If the work is not completed, the incomplete will be converted to the grade specified on the incomplete grade form. Exceptions to the policy require approval of the dean of faculty and administration.

## In Progress Grade

The in progress (IP) grade may be used for practica, internships, and research or project courses or independent studies. It is a temporary grade that must be replaced by a letter or credit grade, and it may be used only for course work that is expected to continue beyond one semester.

## Grade Reports

## Preliminary Reports

At the end of seven weeks in every regular semester, instructors report the current grade of any student who at that point has achieved below the C level. These grades are sent to the student's academic adviser.

## Regular Reports

At the end of each semester, students' final grades for the semester are accessible on-line.

## Change of Grade

When a final grade has been reported to the registrar it cannot be changed except by the provost in consultation with the instructor.

## Transcripts

Official transcripts are issued by the registrar, for a fee, within one week after receipt of a formal request signed by the student. All indebtedness to the college must be satisfied before any official transcript of record will be issued.

## Academic Grievance

Whenever a student believes he or she has been unfairly treated in matters of grades or other evaluations, course policies or expectations, or is facing allegations of cheating or plagiarism, the following grievance procedure should be followed.

Students who are dissatisfied with the grade awarded for a course component or for the course itself should take their grievance to the faculty member involved. If the student is not satisfied with the response from the faculty member, they should take their concern to the Department Chairperson. Only if they are still not satisfied should they go the dean of faculty and administration. The decision of the dean of faculty and administration such matters is final. At each level the student should expect to receive an explanation in writing. Such grievances must be initiated within six weeks after the final day of class in question and should be documented in writing.

## Academic Integrity

Academic integrity is a serious matter. Dishonesty is an affront to the character and law of God and an insult to the academy and to its professors. It destroys the basic building blocks for community and has been called a "crime against nature" and an "obscenity" within the educational context because it violates freedom and trust, which are absolutely essential for effective learning. It limits the ability of the student to reach his or her potential as a child of God and citizen of the Kingdom. For these reasons it must be fully understood and closely monitored.

## Definitions

Honesty is a personal quality of being authentic, truthful, whole or complete, and responsible. People who are honest will be trusted and respected by others. Dishonesty is the quality of being inauthentic and deceitful to others. It involves abusing or hiding the truth. It breaks trust between people, robs its victims of their sense of security and justice, and shows disrespect for Biblical standards of righteousness.

There are several types of dishonesty that are specific to the academic community. Some of these behaviors typically occur within the context of a specific academic course addressed in points one through five below. Others occur outside the classroom and therefore have broader community implications, as outlined by points five and six.

1) Plagiarism: the misattribution or misrepresentation of the intellectual work of another person as one's own, including their ideas, pictorial or graphic materials, and works.
2) Inventing or falsifying information in an academic exercise, for example, making up a fictitious source or quote or intentionally giving an incorrect citation.
3) Cheating: obtaining or attempting to obtain answers from another student for an academic test or exercise, or using unauthorized notes during an exam.
4) Allowing one's own intellectual work to be dishonestly used by others, including sharing a term paper, examination, or diskette so that another student may cheat.
5) Misrepresenting or disguising one's actions in order to deceive the instructor, including fabricating a reason for having missed a class or a deadline or turning in a paper for one class that was originally written for another class.
6) Preventing other students from successfully completing an academic assignment for example, stealing materials from the library; stealing a diskette, textbook, or notes from another student; hiding materials in the library; or ruining a laboratory experiment.
7) Forging a signature on, or unauthorized alteration of, academic documents such as transcripts, registration and drop-add forms, grade books.

## Procedural Guidelines for Intellectual Dishonesty Cases

Definitions-Each syllabus should include a statement about academic dishonesty for that course. Instructors are encouraged to reference the college integrity policy and openly articulate their personal philosophy about dishonesty in class.

Detection-Where the instructor has reason to believe that dishonest behavior has occurred, the parties involved should be confronted as soon as possible and all relevant materials confiscated where possible. If there is reasonable doubt about whether an offense has occurred, the instructor should warn the student or students. While instructors must be careful to avoid false accusation, they are free to exercise their professional judgment.

Reporting Procedure__The instructor will confront the student or students involved and report the offense to the department chairperson for consultation. Prior to making a course-specific judgment about penalties to be imposed, the dean of faculty and administration will be notified about the offense, who will determine if additional disciplinary action may be warranted. The dean of faculty and administration will inform the dean of student development for the purpose of record keeping and, if applicable, consideration of additional disciplinary measures to be taken. A staff member or administrator who discovers a case of academic dishonesty should report it to the dean of faculty and administration, who shall then follow the procedures of this document.

Sanctions-For an offense in categories one through five, several penalty options are available to the instructor, including, but not limited to the following:

- Informal or formal warning to the student or students involved.
- Requiring the assignment or test in question to be retaken, with a lower grade.
- Requiring makeup work, with or without a lower grade being assigned.
- Assigning a grade of zero for the assignment or test in question.
- Lowering the final grade for the course.
- Giving the student a failing grade for the course.

In addition to the above sanctions, the instructor, dean of faculty and administration, provost, or dean of student development may require for an offense in categories six or seven, sanctions that may include, but are not limited to, the following:

- Informal or formal apologies to the victim or victims,
- Restitution for lost or damaged material.

Upon recommendation of the dean of faculty and administration, provost or dean of student development may invoke further penalties as warranted by an offense, including:

- Charging fines,
- Placing the student on academic and/or disciplinary probation,
- Suspension or dismissal from the institution,
- Reporting the offense to external authorities.

For multiple or repeat offenses, the penalty imposed will normally be of greater severity. College policy allows for the possibility of suspension upon the commission of a second offense.

Appeals-Students have the right to appeal disciplinary actions taken in response to academic dishonesty. A faculty member's ruling can be appealed to the department chairperson. If needed, further appeals are taken to: an ad hoc committee of three faculty members appointed by the dean of faculty and administration; the provost; and finally, to the president whose decision is final.

## Academic Standing

## Dean's List

At the end of each semester the names of undergraduate students with high achievement are published and a congratulatory note is sent to each student by the dean of faculty and administration.

To be eligible for this recognition, the student must for that semester:

1) Pass at least 12 credit hours.
2) Earn a GPA of at least 3.6.
3) Receive no grades of $\mathrm{F}, \mathrm{WF}$, IN, or NC.


#### Abstract

Alpha Chi As a general honor society, Alpha Chi admits to membership students from all academic disciplines. Alpha Chi recognizes and promotes scholarship and those elements of character that make scholarship effective for good. Membership in the Pennsylvania Lambda chapter of Alpha Chi is available to the top 10 percent of the junior and senior classes at Geneva College and not only recognizes previous accomplishments but also provides opportunity for continued growth and service.

Geneva College affirms that all truth originates in God, and that the quest for truth in all academic disciplines glorifies God. The membership of Geneva's Alpha Chi chapter is charged to guard with diligence the scholarship of Geneva College, the honesty and integrity of its scholars, and Geneva's commitment to Christian higher education as envisioned in the Foundational Concepts of Christian Education.


## Athletic Eligibility

Geneva College complies with the eligibility standards established by Division III of the National Collegiate Athletic Association.
"To be eligible to represent an institution in intercollegiate athletics competition, a student-athlete shall be enrolled in at least a minimum full-time program of studies, be in good academic standing and maintain satisfactory progress toward a baccalaureate or equivalent degree... A waiver of the minimum full-time enrollment requirement may be granted for a student enrolled in the final term of the baccalaureate program. Also, a student may represent the institution while enrolled as a graduate or professional student or while enrolled and seeking a second baccalaureate degree at the same institution."
(NCAA Div III Manual 2006-2007, pg 85)

## Academic Continuation

The academic status of each student is determined at the end of every grading period and is normally based on the decision criteria described below. Students are normally considered to be in "Academic Good Standing" unless their cumulative GPA falls below 2.00. Students who are not in "Academic Good Standing" fall into one of three categories: Probation, Suspension, or Dismissal. Normally, students are placed in one of these categories based on academic performance as described below. Students who have GPAs that qualify them for these categories may be explicitly notified, but absence of such explicit notification does not exempt a student from the status or the consequences of the status.

The college administration reserves the right to place a student on probation, suspension, or dismissal for reasons other than the criteria described here. Criteria that might be used to make these judgments include, but are not limited to, specific patterns of poor academic performance, weak progress in completing attempted credit hours, student disciplinary history, poor class attendance, problematic behavior in and/or out of class, lack of conformance to academic regulations, and so forth.

If a student's cumulative GPA is below the following values in the appropriate Hours Attempted category, the student's Academic Status is as listed. [Note that "cumulative GPA" has a specific meaning for students who have transferred credit to Geneva. In short, "cumulative GPA" is based only on course work that was taken after a student matriculated at Geneva. Courses taken prior to that date may be accepted in transfer, but the GPA's associated with those courses are not carried forward, except Education majors. See the section on Transfer Policies (page 186) for more details on this policy and other matters that effect transfer students.]

| Hours Attempted | Warning | Probation | Suspension | Dismissal |
| :---: | :---: | :---: | :---: | :---: |
| 0-17 | 2.20 | 2.00 | -- | -- |
| 18-34 | 2.20 | 2.00 | 1.70 | 0.50 |
| 35-68 | 2.20 | 2.00 | 1.70 | 1.00 |
| 69-90 | 2.20 | 2.00 | 1.85 | 1.50 |
| 91 or above | 2.20 | 2.00 | 1.95 | 1.85 |

## Academic Warning

Students who have a cumulative GPA less than 2.20 at the end of a grading period are on Academic Warning. This indicates that this student has a GPA that is sufficiently low to warrant concern about the student's ability to successfully meet the 2.00 minimum GPA required for graduation. However, as long as the student's cumulative GPA remains at 2.00 or above, the student is in "Academic Good Standing."

## Academic Probation

Students who have a cumulative GPA less than 2.00 at the end of a grading period (or whose admission to the college is as a probationary student) are on academic probation. Academic probation status indicates that the student is not making satisfactory progress towards graduation. In order to help students become academically successful, students on academic probation are under the following restrictions:

- May not enroll for more than 14 credit hours in any single semester.
- Are ineligible for the following co-curricular activities: varsity or junior varsity athletics (including offseason team practices), Geneva-sponsored music ensembles, theatre productions (any capacity), student government, and student publications.
- May not be resident assistants or hold any other compensated student leadership roles.
- May be subject to further conditions determined by the college administration based on individual circumstances.

Students on academic probation are strongly encouraged to seek assistance from Geneva's ACCESS office for assistance in academic skills such as effective study habits, time management, and note taking. Students on academic probation are also encouraged to re-take courses in which they have failed as the quickest means to raise their GPA.

A student may appeal one or more of the restrictions associated with Academic Probation by submitting a written request, along with any supporting documentation, to the dean of faculty and administration. The appeal must be based on the assurance of improved academic performance, and the assurance that past difficulties that have affected academic performance can be overcome. The dean of faculty and administration may consult with appropriate college staff concerning the student's appeal, including, but not limited to, staff in student development, the business office, and the student's academic adviser. Such an appeal must be made at least three business days prior to the start of a spring semester, and at least one week prior to the start of a fall semester.

## Academic Suspension

Students are on academic suspension if their GPA is less that the value indicated in the chart above. Students on academic suspension are prohibited from taking any classes at Geneva for at least one regular academic semester (Fall or Spring). Further, any course work taken elsewhere while on academic suspension will not be accepted as transfer credit, except upon successful appeal to the dean of faculty and administration. (Note: For students pursuing teaching certification, courses will transfer and will count toward the career GPA.)

A student on academic suspension may appeal to be moved to academic probation status by submitting a written request, along with any supporting documentation, to the dean of faculty and administration. The appeal must be based on the assurance of improved academic performance, and the assurance that past difficulties that have affected academic performance can be overcome. Such appeals will be granted only in cases where there is clear reason to expect immediate and marked improvement in academic performance. The dean of faculty and administration may consult with appropriate college staff concerning the student's appeal, including, but not limited to, staff in student development, the business office, and the student's academic adviser. Such an appeal must be made at least three business days prior to the start of a spring semester, and at least one week prior to the start of a Fall semester.

Readmission following suspension will be based on evidence of improved academic performance or evidence that past difficulties that have affected academic performance have been overcome, and that eventual completion of the requirements for a degree can be reasonably expected. Students on academic suspension who wish to be readmitted should send a letter of application, along with any supporting documents, to the dean of faculty and administration no later than 60 days prior to the first day of class in the semester for which they are seeking readmission. Students who are readmitted following suspension will be on academic probation until such time as their cumulative GPA rises above 2.00, they are placed on Academic Suspension again, or they are placed on Academic Dismissal.

## Academic Dismissal

Academic dismissal occurs when the student's academic performance indicates that it is unreasonable to anticipate eventual completion of degree requirements (normally determined by the chart above). Since the dismissal is intended to be permanent, only the lapse of a year or more and a drastic change in circumstances can justify application for readmission to the dean of faculty and administration. The dean of faculty and administration will grant readmission of a dismissed student only in rare instances.

## Withdrawal From The College

To withdraw from the college, a student must complete a withdrawal form available from the student development office. If the student receives financial aid, he or she should notify the director of financial aid. Part-time students may withdraw by calling the registrar's office. A resident student may not reduce class load below 12 semester credit hours without approval by the dean of student development. Since college housing is intended for full-time students, a student who drops below 12 credit hours must petition the Residence Life Office in order to remain in college housing.

## Readmission After Withdrawal

A full-time or part-time degree candidate who for any reason is out of college for a semester or more must apply for readmission to the registrar. The application must include official transcripts of all grades earned at other institutions since leaving Geneva and should be filed at least 60 days prior to registration to assure proper clearance. See page 26 for readmission following academic suspension.

Geneva College will readmit veterans who left in order to perform military service. The veteran will be readmitted with the same academic status he or she had when last they attended the institution. In most cases, the length of the absence from the institution cannot exceed five years. Exceptions to this policy would include the veteran receiving a dishonorable discharge or bad conduct discharge, or who are sentenced in a court-martial.

## Credit-No Credit Option

Any junior or senior with a cumulative average at registration of 2.5 or higher may choose to take one course per semester on a credit-no credit basis. The student must decide by the normal drop date (see above) whether to be graded credit-no credit or in the regular manner. Credit-no credit grading is not allowed for any course used to meet a core, a major, or a minor requirement. To receive a grade of credit, performance equivalent to a grade of C or better is required.

## Credit-No Credit Courses

The following courses, also graded credit-no credit (CR/NC), are repeatable, but not more than a combined total of eight semester credit hours in all can be applied toward minimum graduation requirements: COM 200, 201, 203, 204; EDU 220; ENG 221, 223; HMN 491; MUS 212, 213, 214, 215, 216, 218, PED 104.

## Transfer Policies

Detailed information for students transferring to Geneva and for Geneva students who wish to transfer credits to Geneva is found on page 185.

## Applied Music Policies

College students taking music lessons, whether for credit or not, are required to register at the regular time and place for college registration. They will be charged for 14 lessons for the semester. Absences may be made up at the discretion of the instructor. In certain areas of performance, private weekly instruction is available to non-students.

## Auditing

Any student may audit a course with the instructor's permission. Full-time students who wish to have a course recorded as AU must register for it within the first two weeks of the beginning of the regular semester, and pay half the per-hour tuition rate for any credit hours above the load limit described on page 189. All part-time students pay half tuition for the auditing privilege. Audited courses do not apply toward graduation requirements. Exceptions to this policy must be approved by the dean of faculty and administration.

## Veteran's Education

Geneva College is approved for the education of veterans under Public Law 894, and Chapter 34 of the G.I. Bill. Veterans should check with the Veterans Administration regarding their eligibility for educational or other veteran benefits. Veterans may receive two credit hours in physical education by filing in the registrar's office a photostatic copy of their separation record. Upon presentation of appropriate records, credit for service school courses may also be granted as recommended in "A Guide For The Evaluation of Educational Experiences in the Armed Forces."

## Program for Adult Continuing Education (PACE)

PACE provides an avenue for students to take courses as non-degree candidates without formal admission. A maximum of 30 credit hours (attempted and completed) may be taken, at which time formal application for admission must be made. The student, however, is permitted to apply for admission any time during the course of the 30 credit hours. The student is required to maintain a satisfactory grade point average in order to be permitted to register for future courses.

## Books and Supplies

Required texts and supplies are available at the campus store. Plan to pay for books by cash, check, or VISA or MasterCard in the bookstore. Book costs are highly variable, and depend on factors such as the field of study, course load, availability of used texts, and so on.

## Graduation Arrangements

Upon completion of degree requirements and application to the Registrar's Office, a student may be graduated at the end of either semester or of the summer session. At the conclusion of the spring semester each year, commencement exercises are held for all students who have completed graduation requirements at that time or the preceding January, or who expect to complete their final 9 credit hours (or less) by August. Three commencement ceremonies are held: a more informal one in December, and two more formal ones in May. On the evening before the traditional undergraduate commencement day, graduates are invited to participate in a public baccalaureate worship service.

## Undergraduate Honors and Awards

Special recognition is given to members of the graduating class who have maintained high scholastic standing. The selection for graduation honors is based on the student's cumulative grade point average. To qualify for honors a student must have completed 60 or more credit hours while matriculated at Geneva, including affiliate programs. The following recognition is provided:

## Valedictorian

The person or persons with the highest GPA in the graduating class. Selection is based on non-repeated courses.

> Summa Cum Laude (with highest honor)
> GPA of 3.8 or higher

Magna Cum Laude (with high honor)
GPA of at least 3.6 but less than 3.8
Cum Laude (with honor)
GPA of at least 3.4 but less than 3.6

## Research Honors

Research Honors are awarded to students who have completed research projects judged to be of high quality by the faculty of an academic department, including a public presentation of the projects at a special honors symposium.

## Creative Honors

Creative Honors are awarded to students who have completed creative or performance activities or projects that are judged to be of high quality by the faculty of an academic department, including the public presentation of the activity or project.

## DCP Research Honors.

Students who have completed outstanding applied research projects, approved by the academic resources coordinator and the primary instructor, are awarded Research Honors and present their projects at special public honors symposia.

## Special Prizes

Special prizes and awards are also presented to seniors and to underclassmen at commencement exercises. These awards are made possible through the generosity of friends and alumni, and they are listed in the commencement program.

## DEGREES AND PROGRAMS

## Degrees <br> Bachelor's Degrees

These require a minimum of 126 semester credit hours. Majors which require more than 126 credit hours are identified under Programs of Instruction.

Bachelor of Arts
Bachelor of Science
Bachelor of Science in Business Administration
Bachelor of Science in Education
Bachelor of Science in Engineering

## Associate's Degrees

These require a minimum of 63 semester credit hours.
Associate in Business Administration
Associate in Engineering

Master's Degrees<br>Each requires a minimum of 36 semester credit hours.<br>Master of Arts in Counseling (requires 60 credit hours)<br>Master of Arts in Higher Education<br>Master of Business Administration<br>Master of Education in Reading<br>Master of Education in Special Education<br>Master of Science in Cardiovascular Science<br>Master of Science in Organizational Leadership

## Second Degrees

A student who has earned a bachelor's degree from another institution may be granted a second degree by fulfilling all of the following requirements:

1) A minimum of 48 credit hours earned in residence at Geneva.
2) A minimum of 15 credit hours earned in a new major at Geneva.
3) All of Geneva's core requirements not fulfilled in the first degree.

A Geneva graduate may earn a second degree or major by completing the requirements, including at least 15 credit hours in the major earned at Geneva. Once a student graduates, the requirements for a second degree or major are determined by the catalog current at the time of re-enrollment.

## Undergraduate Majors/Programs

Accounting....................................................................................................... 45
Applied Mathematics ........................................................................................... 57
Biblical Languages.............................................................................................. 33
Biblical Studies .................................................................................................... 34
Biology............................................................................................................... 40
Biochemistry ...................................................................................................... 50
Biopsychology ............................................................................................... 89
Business ............................................................................................................... 45
Cardiovascular Technology ................................................................................ 42
Chemical Engineering......................................................................................... 52
Chemistry ........................................................................................................... 49
Christian Ministries ............................................................................................ 36
Communication ................................................................................................. 52
Communication Disorders ................................................................................. 55
Community Ministry ..... 94
Computer Science ..... 56
Elementary Education ..... 58
Engineering ..... 66
English ..... 73
History ..... 77
Human Resources ..... 94
Human Services ..... 89, 95
Independent Major ..... 19
Mathematics Education ..... 57
Medical Technology (affiliate) ..... 43
Music ..... 85
Music Business ..... 84
Music Education ..... 83
Music Performance ..... 83
Nursing (affiliate) ..... 43
Organizational Development ..... 96
Philosophy ..... 38
Physics ..... 58
Political Science ..... 78
Pre-Law Program ..... 91
Pre-Medical Program ..... 92
Psychology ..... 87
Sociology ..... 79
Special Education Certification ..... 61
Sport Management ..... 86
Student Ministry ..... 39
Writing ..... 74
Undergraduate Minors/Programs
Accounting ..... 45
Biblical Studies ..... 35
Biology ..... 42
Business ..... 47
Chemistry ..... 51
Christian Ministries ..... 38
Christian School Teaching ..... 64
Communication Disorders ..... 55
Computer Science ..... 57
Creative Writing ..... 76
Criminal Justice ..... 79
Engineering ..... 70
English ..... 75
Environmental Science ..... 42
Finance/Economics ..... 48
History ..... 78
Human Services ..... 91
Informational Writing ..... 76
Mathematics ..... 58
Music ..... 86
Music Education ..... 86
Philosophy ..... 39
Physics ..... 58
Political Science ..... 79
Pre-Law Studies ..... 91
Psychology ..... 89
Sociology ..... 79
Spanish ..... 80
Sport Coaching ..... 86
Sport Management ..... 87
Student Ministry ..... 40
Teaching of English as a Second Language ..... 76
Non-Traditional Undergraduate Programs
Center for Urban Biblical Ministry (CUBM) ..... 93
Center for Urban Theological Studies (CUTS) ..... 93
Degree Completion Program (DCP) ..... 94
Community Ministry Major ..... 94
Human Resources Major ..... 94
Human Services Major ..... 95
Organizational Development ..... 96
Off-Campus Study Opportunities
American Studies Program ..... 100
Arcadia Center for Education Abroad ..... 97
Art Institute of Pittsburgh ..... 97
Au Sable Institute of Environmental Studies ..... 97
Australia Studies Centre ..... 100
China Studies Program ..... 100
Contemporary Music Center ..... 100
Cornerstone Institute ..... 98
Covenanter Theological Institute ..... 98
Focus on the Family Institute (FFI) ..... 99
Geneva College Semester in Rome ..... 99
Jerusalem University College ..... 99
Latin American Studies Program ..... 101
LCC International University ..... 99
Los Angeles Film Studies Center (LAFSC) ..... 101
Middle East Studies Program. ..... 101
Oxford Summer Programme (OSP) ..... 101
Scholars Semester in Oxford (SSO) ..... 101
Semester In Spain ..... 99
Uganda Studies Program ..... 102
Washington Journalism Center (WJC). ..... 102
Graduate Programs
Master of Arts in Counseling ..... 104
Master of Arts in Higher Education ..... 110
Master of Business Administration ..... 113
Master of Education in Reading. ..... 116
Master of Education in Special Education ..... 118
Master of Science in Cardiovascular Science ..... 120
Master of Science in Organizational Leadership ..... 120

## TRADITIONAL UNDERGRADUATE PROGRAMS

## Department of Biblical Languages, Biblical Studies, Christian Ministries, Philosophy, \& Student Ministry

Following the guidelines established in the Foundational Concepts of Christian Education, the instructors in this department are committed to the historic Reformed doctrine of Scripture as the inspired, infallible, and authoritative Word of God. Biblical studies are designed to develop the basis for Christian perspectives in the study of the liberal arts, to encourage the formulation of a scripturally informed conception of life and of the world, to equip for ministry, and to provide a foundation for advanced study and professional specialization.

The offerings in philosophy confront the student with fundamental ideas of Western thought, ancient and modern, encourage critical evaluation of various philosophic positions in the light of the Christian revelation, and seek to develop a systematic view of reality that is consonant with the Christian faith.

Besides supervising the majors and minors described in this section, and the Christian Ministries Major, the department shares responsibility for the minor in Christian school teaching, described on page 64.

## Biblical Languages Major - BA - Program requirements 42 credit hours

Six credit hours in Bible courses selected from:
BIB 301 Old Testament Prophecy 3

BIB 302 Wisdom Literature 3
BIB 303 Old Testament Studies 3
BIB 304 Psalms 3
BIB 305 Isaiah 3
BIB 306 Daniel 3
BIB 307 Judah's Exile/Restoration 3
BIB 308 Luke 3
BIB 310 Pauline Epistles 3
BIB 311 Matthew 3
BIB 313 John 3
BIB 314 New Testament Studies 3
BIB 315 Acts 3
BIB 316 Romans 3
BIB 317 Ephesians/Pastorals 3
BIB 318 Hebrews 3
BIB 319 Revelation 3
Three credit hours in:
MIN 210 Evangelism 3
Three credit hours in:
BIB 325 Biblical Theology
30 credit hours in Biblical Languages and Linguistics:
GRK 101 Elementary Hellenistic Greek I 3
GRK 102 Elementary Hellenistic Greek II 3
GRK 201 Intermediate Hellenistic Greek 3
GRK 202 Biblical Greek Exegesis 3
HEB 101 Elementary Biblical Hebrew I 3
HEB 102 Elementary Biblical Hebrew II 3
HEB 201 Intermediate Biblical Hebrew 3
HEB 202 Biblical Hebrew Exegesis 3
LIN 219 Introduction to Linguistics 3
LIN 220 Applied Linguistics
or LIN 495 Independent Study 3

## Biblical Studies Major • BA - Program requirements 36 credit hours

In addition to the nine credit hours required in the college core:
BIB 200 $\quad$ How to Read the Bible $\quad 3$
BIB 308 Luke 3
or BIB 311 Matthew 3
or BIB 313 John 3
One Old Testament course from:
BIB 301 Old Testament Prophecy 3
BIB 302 Wisdom Literature 3
BIB 303 Old Testament Studies 3
BIB 304 Psalms 3
BIB 305 Isaiah 3
BIB 306 Daniel 3
BIB 307 Judah's Exile/Restoration 3
BIB 340 Inter-Testamental Literature 3
BIB 341 Archeology and Geography of Israel 3
Nine credit hours in philosophy selected from:
PHI $100 \quad$ Logic
PHI 110 Introduction to Philosophy 3
PHI 112 Ethics * 3
PHI 113 C.S. Lewis * 3
PHI 200 Plato 3
PHI 202 Augustine * 3
PHI 204 Aristotle * 3
PHI 206 Aquinas * 3
PHI 300 History of Modern Philosophy 3
PHI 301 Kant 3
PHI 304 Nineteenth-Century Social Philosophers and Pragmatism 3
PHI 305 Contemporary Philosophy: The Analytic Tradition 3
PHI 306 Postmodern Philosophers 3
PHI 307 Women Philosophers 3
PHI 308 Contemporary Continental Philosophy 3
PHI 309 Kierkegaard \& Nietzsche 3
PHI $310 \quad$ Christian Understanding of Life * 3
PHI 353 Philosophy of Science 3
PHI 354 Political Philosophy 3
PHI 355 Philosophy for Theology 3
PHI 356 Knowledge and Reality 3
PHI $430 \quad 3$
(Priority should be given to * courses)
Three credit hours in church history:
BIB 350 History of the Christian Church 3
Three credit hours in theology selected from:
BIB $320 \quad$ Special Topics in Theology 3
BIB 322 Calvin's Institutes 3
BIB 325 Biblical Theology 3
Three credit hours in evangelism:
MIN 210 Evangelism 3

Three credit hours in practical theology selected from:
MIN 205 Christian Education in the Local Church 3
MIN 215 Methods of Teaching the Bible 3
MIN 219 World Christian Movement 3
MIN 220 Topics in Christian Ministry 3
Six additional credit hours in Biblical studies or philosophy

## Biblical Studies Minor

Requires a minimum of 18 credit hours
Six credit hours in:

| BIB 350 | History of the Christian Church | 3 |
| :--- | :--- | :--- |
| PHI 100 | Logic | 3 |

Three credit hours from:

| BIB 320 | Special Topics in Theology |
| :--- | :--- |
| or BIB 321 | Introduction to Reformed Tradition |
| or BIB 322 | Calvin's Institutes |
| or BIB 325 | Biblical Theology |

Three credit hours from:
BIB 301 Old Testament Prophecy 3
BIB 302 Wisdom Literature 3
BIB 303 Old Testament Studies 3
BIB 304 Psalms 3
BIB 305 Isaiah 3
BIB 306 Daniel 3
BIB 307 Judah’s Exile/Restoration 3
BIB 308 Luke 3
BIB 310 Pauline Epistles 3
BIB 311 Matthew 3
BIB 313 John 3
BIB 314 New Testament Studies 3
BIB 315 Acts 3
BIB 316 Romans 3
BIB 317 Ephesians/Pastorals 3
BIB 318 Hebrews 3
BIB 319 Revelation 3
Three credit hours from:
MIN 205 Christian Education in the Local Church 3
MIN 210 Evangelism 3
MIN 215 Methods of Teaching the Bible 3
MIN 219 World Christian Movements 3
Three credit hours from:
PHI $310 \quad 3$
or another philosophy course approved by the department

## Christian Ministries Major - BA

This major may be taken in various configurations depending on the career and vocational objectives of the student.

## Christian Ministries-Pre-Seminary - Program requirements 39 credit hours

This track leads to seminary studies and is intended for the student aiming towards ordination to the Christian ministry. Three credit hours in Bible Interpretation:
BIB 200 How to Read the Bible
Six credit hours in Bible content courses divided between 3 credit hours Old Testament and 3 credit hours New Testament studies, and selected from:
BIB $301 \quad$ Old Testament Prophecy 3

BIB 302 Wisdom Literature 3
BIB 303 Old Testament Studies 3
BIB 304 Psalms 3
BIB 305 Isaiah 3
BIB 306 Daniel 3
BIB 307 Judah's Exile/Restoration 3
BIB 308 Luke 3
BIB $310 \quad$ Pauline Epistles 3
BIB 311 Matthew 3
BIB 313 John 3
BIB 314 New Testament Studies 3
BIB 315 Acts 3
BIB 316 Romans 3
BIB 317 Ephesians/Pastorals 3
BIB 318 Hebrews 3
BIB 319 Revelation 3

Six credit hours in Hellenistic Greek
or in Biblical Hebrew
Nine credit hours in philosophy selected from:
PHI $100 \quad$ Logic
PHI 110 Introduction to Philosophy 3
PHI 112 Ethics 3
PHI 200 Plato 3
PHI 202 Augustine 3
PHI $310 \quad$ Christian Understanding of life 3
Three credit hours in church history:
BIB 350 History of the Christian Church 3
Three credit hours in theology selected from:
BIB $320 \quad 3$
BIB 321 Introduction to Reformed Tradition 3
BIB 322 Calvin's Institutes 3
BIB 325 Biblical Theology 3
Three credit hours in evangelism:
MIN 210 Evangelism 3
Three credit hours in internship:
MIN 493 A Christian Ministries Internship 3
Three credit hours in electives chosen from any of the BIB, MIN or PHI categories.
As part of its Pre-Seminary program, Geneva's Bible department has entered into a 3-3 program with the Reformed Presbyterian Theological Seminary in Pittsburgh. This program is designed to make it possible for an undergraduate
student to take three years of coursework at Geneva, and three years of coursework at the Reformed Presbyterian Theological Seminary and thus earn both an undergraduate degree in Christian Ministries at Geneva and a Master of Divinity at RPTS in the space of six years.

## Christian Ministries-Missions - Program requirements 39 credit hours

This track helps to equip a student for cross-cultural ministry, ordinarily for service under the supervision of a mission agency.

Three credit hours in Bible interpretation:
BIB $200 \quad$ How to Read the Bible

Nine credit hours in Bible content courses, including at least three credit hours in Old Testament and three credit hours in New Testament:
BIB 301 Old Testament Prophecy 3

BIB 302 Wisdom Literature 3
BIB 303 Old Testament Studies 3
BIB 304 Psalms 3
BIB 305 Isaiah 3
BIB 306 Daniel 3
BIB 307 Judah's Exile/Restoration 3
BIB 308 Luke 3
BIB 310 Pauline Epistles 3
BIB 311 Matthew 3
BIB 313 John 3
BIB 314 New Testament Studies 3
BIB 315 Acts 3
BIB 316 Romans 3
BIB 317 Ephesians/Pastorals 3
BIB 318 Hebrews 3
BIB 319 Revelation 3

Three credit hours in philosophy from:
PHI $310 \quad$ Christian Understanding of Life $\quad 3$
PHI 318 Philosophies of World Religions 3
Three credit hours in evangelism:
MIN $210 \quad$ Evangelism
Nine credit hours in missions from:
MIN $201 \quad$ Cultural Anthropology $\quad 3$
MIN 219 World Christian Movement 3
MIN 224 Missions and Culture 3
MIN 225 Globalism and Multiculturalism 3
LIN 219 Introduction to Linguistics 3
LIN 220 Applied Linguistics 3
Three credit hours in theology selected from:
BIB 320 Special Topics in Theology 3
BIB 321 Introduction to Reformed Tradition 3
BIB 322 Calvin's Institutes 3
BIB 325 Biblical Theology 3
Three credit hours in church history:
BIB $350 \quad$ History of the Christian Church
Six credit hours Internship involving guided experiences in cross-cultural outreach (MIN 493)

## Christian Ministries Minor

Eighteen credit hours in either the pre-seminary track or the missions track.
Pre-seminary - Requires a minimum of 18 credit hours
Six credit hours of Bible content
Six credit hours of philosophy content
Three credit hours of theology
Three credit hours of practical theology
Missions - Requires a minimum of 18 credit hours
Six credit hours of Bible content
Three credit hours of philosophy content
Three credit hours of theology
Six credit hours in missions

## Philosophy Major • BA - Program requirements 36 credit hours

Three credit hours introduction:
PHI 110 Introduction to Philosophy 3
Three credit hours from:
PHI 112 Ethics 3
PHI 113 C. S. Lewis 3
$\begin{array}{ll}\text { Nine credit hours historic sequences from: } \\ \text { PHI 200 } & \text { Plato }\end{array}$
PHI 202 Augustine 3
PHI 204 Aristotle 3
PHI 206 Aquinas 3
PHI 308 Contemporary Continental Philosophy 3

Nine credit hours philosophy electives from:
PHI $300 \quad$ History of Modern Philosophy 3
PHI Kant 3013
PHI 304 Nineteenth -Century Social Philosophers and Pragmatism 3
PHI 305 Contemporary Philosophy: The Analytic Tradition 3
PHI 306 Post Modernism 3
PHI 307 Women Philosophers 3
PHI 309 Kierkegaard and Nietzsche 3
PHI $310 \quad$ Christian Understanding of Life 3
Note: Philosophy majors may substitute PHI 310 for BIB 300
PHI $355 \quad$ Philosophy for Theology
Three credit hours Bible requirements:
BIB 200 How to Read the Bible

Three credit hours Bible electives from:
BIB 320 Special Topics in Theology 3
BIB 321 Introduction to Reformed Tradition 3
BIB 322 Calvin's Institutes 3
BIB 325 Biblical Theology 3
Three credit hours advanced philosophic topics from:
PHI 100 Logic 3

PHI 318 Philosophies of World Religions 3
PHI 353 Philosophy of Science 3
PHI 354 Political Philosophy 3
PHI $430 \quad$ Philosophy of History 3

## Philosophy Minor

Eighteen credit hours in philosophy (PHI) courses, including PHI 110.

## Student Ministry Major - BA - Program requirements 52 credit hours

This major prepares a student for ministry within the church, parachurch, or a variety of other organizations that work with students - children through college age. Adding substantial ministry experience to a solid Biblical, theoretical, and methods core, the major allows a student to concentrate on the area within their understood sense of personal calling, including: church and parachurch ministry; urban ministry; children's ministry, adventure education; and campus ministry.

Bible core (12 credit hours)
Six credit hours from:
BIB 200 How to Read the Bible 3
BIB 311 Matthew 3
BIB 308 Luke 3
BIB 313 John 3
Three credit hours Old Testament course from:
BIB $301 \quad$ Old Testament Prophecy
BIB 302 Wisdom Literature 3
BIB 303 Old Testament Studies 3
BIB 304 Psalms 3
BIB 305 Isaiah 3
BIB 306 Daniel 3
BIB 307 Judah's Exile/Restoration 3
Three credit hours New Testament course from:
BIB 310 Pauline Epistles 3
BIB 314 New Testament Studies 3
BIB 315 Acts 3
BIB 316 Romans 3
BIB 317 Ephesians/Pastorals 3
BIB 318 Hebrews 3
BIB 319 Revelation 3
Theory core (9 credit Hours)
Three credit hours from:
MIN 319 Contemporary Adolescent Culture
Three credit hours theology course from:
BIB 320 Special Topics in Theology 3
BIB 321 Introduction to Reformed Tradition 3
BIB 322 Calvin's Institutes 3
BIB 325 Biblical Theology 3
Three credit hours philosophy course from:
PHI 112 Ethics 3
PHI 113 C.S. Lewis 3
PHI 202 Augustine 3
PHI 206 Aquinas 3
Methods core (12 credit hours)
Nine credit hours from:
MIN 210 Evangelism 3
MIN 240 Introduction to Student Ministry 3
MIN 241 Methods of Student Ministry 3

Three additional credit hours methods course from:
MIN $215 \quad$ Methods of Teaching the Bible 3

PSY 252 Adolescent Development 3
Specialization core (3 credit hours)
Three credit hours from:
MIN 242 Children's Ministry 3

MIN 244 Introduction to Urban Student Ministry 3
MIN 245 Christian Community Development 3
MIN 246 Campus Ministry 3
MIN 250 Theory and Practice of Experiential Education 3
MIN 253 Challenge Course Facilitation 3
Experiential core (16 credit hours)
Sixteen credit hours from:
MIN 292 Ministries Practicum 4
(two credit hours per course for two semesters)
MIN 430 Senior Seminar 3
MIN 493 Student Ministry Internship 9

## Student Ministry Minor

18 credit hours:
Six credit hours of BIB core-BIB 200 required plus one other course
Three credit hours of Theory core
Six credit hours of Methods core-MIN 240 or MIN 241 required plus one other course
Three credit hours of Experiential core-MIN 292 or MIN 493

## Study Abroad Possibilities

The Jerusalem University College program and the Convenanter Theological Institute program are housed in the department. Interested students can find additional information regarding these programs on pages 98 and 99.

## Department of Biology

The Biology Department's program is intended to give each student an understanding of and appreciation of the living world as God's creation, provide an appreciation for the use and limitations of the scientific method of inquiry, and prepare the student majoring in biology for a life of service. Some areas in which the biologist serves are medicine, education, and research.

The department offers the biology major, with concentrations in environmental biology, cell and molecular biology, and human biology, and supervises the pre-medical program (page 92) and programs in medical technology (page 43), prenursing (page 43), and cardiovascular technology (page 42).

Geneva College is affiliated with the Au Sable Institute of Environmental Studies in Mancelona, Michigan. The institute is designed to support and serve evangelical Christian colleges by offering summer courses and programs in various areas of ecology, field biology, land resources, water resources, and environmental studies. The courses available through the institute are listed on page 97.

## Biology Major • BS - Program requirements 60-61 credit hours

37-38 credit hours of biology (BIO) courses, including:

| BIO 111 | Introduction to Environmental Biology | 4 |
| :---: | :--- | :---: |
| BIO 112 | Introduction to Cellular Biology | 4 |
| BIO 305 | Microbiology |  |
| or BIO 310 | Botany | 3 |
| or BIO 316 | Virology | 3 |


| BIO 225 | Human Anatomy and Physiology I | 4 |
| :---: | :---: | :---: |
| BIO 226 | Human Anatomy and Physiology II | 4 |
| BIO 319 | Genetics | 4 |
| One four-credit 300 or 400 level BIO course from the following: Embryology, Ecology, Neuroscience, or Molecular Biology |  | 4 |
| BIO 420 | Senior Paper | 1 |
| *BIO Electives above 290 (waived for BIO education majors, medical technology and cardiovascular technology students) (see list below for BIO electives) |  | 9 |
| CHM 111 | General College Chemistry | 4 |
| CHM 221 | Organic Chemistry I | 4 |
| CHM 222 | Organic Chemistry II | 4 |
| $\begin{aligned} & \text { PHY 181-182 } \\ & \text { or PHY } 201-2 \end{aligned}$ | General Physics I - II 02 College Physics I - II | 4,4 |
| MAT 105 or PSY 205 | Elementary Statistical Methods Psychological Statistics | 3 |
| *BIO Electives: |  |  |
| BIO 302 | Embryology | 4 |
| BIO 305 | Microbiology | 4 |
| BIO 306 | General Ecology | 4 |
| BIO 310 | Botany | 4 |
| BIO 315 | Immunology | 3 |
| BIO 316 | Virology | 3 |
| BIO 317 | Biochemistry | 3 |
| BIO 331 | Biomedical Ethics | 3 |
| BIO 405 | Molecular Biology | 4 |
| BIO 422 | Neuroscience | 4 |
| BIO 421 | Genomics |  |
| BIO 491 | Field Biology Classes (Au Sable) | 3-6 |
| CHM 491 | Environmental Chemistry (Au Sable) | 3-6 |
| SCS 491 | Other Environmental Classes (Au Sable) | 3-6 |
| BIO 292 | Practicum | 1-4 |
| BIO 491 | Special Study | 1-3 |
| BIO 495 | Independent Study | 1-3 |

Additional recommendations from related fields: CHM 232 Quantitative Analytical Chemistry, ENG 113 Researched Writing, PSY 202 Biological Bases of Behavior.

A student seeking Biology Education Certification must fulfill the requirements for the biology major (except BIO electives) and meet the following additional requirements:

| BIO 302 | Embryology | 4 |
| :--- | :--- | :--- |
| BIO 310 | Botany | 4 |
| MAT 101 | College Algebra | 3 |
| or MAT 120 | Precalculus Mathematics | 4 |
| or MAT 161 | Calculus 1 | 3 |
| MAT 105 | Elementary Statistical Methods | 3 |
| SCS 105 | Environmental Science | 3 |
| SCS 215 | Earth and Space Science | 4 |
| SCS 403 | Teaching of Secondary Science |  |

In addition, they must take the professional requirements listed on page 60.
Biology education students may delete either HUM 304 or a social sciences option from their core requirements.

Chapter 354, "Preparation of Professional Educators," was enacted in 2000 in Pennsylvania. This law mandates certain regulations in the preparation of professional educators in the state. Students are responsible to be certain they are meeting regularly with their adviser in regard to this legislation. Geneva College is not responsible for students who will not be certified because of failure to meet certification requirements at the time of graduation.

## Biology Minor

18 credit hours:
BIO 111 Introduction to Environmental Biology 4
BIO 112 Introduction to Cellular Biology 4
BIO 225 Human Anatomy and Physiology I 4
Additional biology credit hours at 200 level or above 6

Environmental Science Minor
21 credit hours

| BIO 111 | Introduction to Environmental Biology | 4 |
| :--- | :--- | :--- |
| BIO 306 | General Ecology | 4 |
| BIO 310 | Botany | 4 |
| SCS 105 | Environmental Science | 3 |
| Plus two courses taken at the Au Sable Institute of Environmental Studies | 6 |  |

Environmental Biology Concentration
18 credit hours:
BIO 111 Introduction to Environmental Biology 4
BIO 306 Ecology 4
BIO 310 Botany 4
Plus six credits of courses at the AuSable Institute of Environmental Studies 6

## Cell and Molecular Biology Concentration

19 credit hours:
BIO 112 Introduction to Cell Biology 4
BIO 317 Biochemistry 3
BIO 319 Genetics 4
BIO 405 Molecular Biology 4
BIO 421 Genomics 3
CHM 313 Biochemistry Laboratory 1

## Human Biology Concentration

22 credit hours:

| BIO 225 | Human Anatomy and Physiology I | 4 |
| :--- | :--- | :--- |
| BIO 226 | Human Anatomy and Physiology II | 4 |
| Plus 14 credits from the following: |  |  |
| BIO 302 | Embryology | 4 |
| BIO 305 | Microbiology | 4 |
| BIO 315 | Immunology | 3 |
| BIO 316 | Virology | 3 |
| BIO 331 | Biomedical Ethics | 3 |
| BIO 422 | Neuroscience | 4 |

## Cardiovascular Technology

In cooperation with INOVA-Fairfax Hospital of Falls Church, Virginia, Geneva offers the Bachelor of Science degree with a major in biology, which is geared toward cardiovascular technology. The program, which involves three years of study at Geneva and 12 months at The INOVA-Fairfax Hospital, includes preparation for certification in cardiovascular technology. This program in invasive cardiology is accredited by the Commission for the Accreditation of Allied Health Education Programs.

The student completes 94 semester credit hours at Geneva, including all core requirements for the degree and at least 27 credit hours of biology, 12 credit hours of chemistry, and eight credit hours of physics. The program at The INOVA-Fairfax

Hospital includes classes and clinical work in cardiopulmonary anatomy and physiology and in the equipment and procedures used in the cardiac catheterization laboratory. Some cardiovascular technology students prefer to spread the course work at Geneva over four years instead of three.

The program at INOVA-Fairfax Hospital is accepted as equivalent to the senior year in fulfilling Geneva's degree requirements. See page 40 for list of biology major requirements. Cardiovascular students are required to take all the required courses for the biology major except the nine credit hours of biology electives and BIO 420.

A Master of Science degree in Cardiovascular Science is also available for students who complete an additional year of training in cardiac electrophysiology. See page 120 for a complete description of the Master's in Cardiovascular Science program.

## Medical Technology Affiliate Degree Program

A three-year sequence at Geneva totaling at least 94 semester credit hours can be combined with a year of training in an approved school of medical technology to earn a bachelor of science degree from Geneva. The three-year program includes all the core requirements for Geneva's degree and 28 credit hours of biology and 16 credit hours of chemistry. See page 40 for the specific courses required for a biology major. Medical technology students are required to take BIO 305 Microbiology and BIO 315 Immunology, but they are not required to take physics or BIO 420 Senior Paper. The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) requirements for medical technology include anatomy and physiology (BIO 225 Human Anatomy and Physiology I, BIO 226 Human Anatomy and Physiology II), immunology (BIO 315 Immunology), genetics (BIO 319 Genetics), microbiology (BIO 305 Microbiology), chemistry (CHM 111 General College Chemistry, CHM 221 Organic Chemistry I, CHM 222 Organic Chemistry II, CHM 232 Quantitative Analytical Chemistry, and statistics (MAT 105 Elementary Statistical Methods). Courses regularly offered at Geneva can satisfy the three-year curriculum requirements for the Board of Registry of Medical Technologists. The year of training at an approved school of medical technology is accepted as equivalent to the senior year in fulfilling Geneva's degree requirements.

## Nursing: Affiliate 2-2•BSN

Geneva College has an affiliate relationship with Roberts Wesleyan College in Rochester, New York. This enables a student to earn a BSN degree by combining two years at Geneva College with two years at Roberts Wesleyan.

This program permits students to participate in Geneva's Reformed approach to the liberal arts and sciences for two years. The credit hours are then transferred to Roberts Wesleyan College and applied toward their four-year BSN degree. All nursing theory and clinical courses are included in the last two years of this program.

Completion of the prescribed courses at Geneva with a cumulative GPA and a science GPA of 2.50 or higher guarantees admission to the final two years at Roberts Wesleyan College. All the Geneva courses may also be applied toward a Geneva degree if so desired.

| Program requirements |  | 3,3 |
| :--- | :--- | ---: |
| BIB 112, 113 | Biblical Introduction I \& II | 4 |
| BIO 112 | Introduction to Cellular Biology | 3 |
| BIO 218 | Introduction to Nutrition | 4,4 |
| BIO 225, 226 | Human Anatomy and Physiology I \& II | 4 |
| BIO 305 | Microbiology | 4 |
| CHM 111 | General College Chemistry | 3 |
| COM 101 | Principles of Communication | 3 |
| ENG 101 | English Composition | 3 |
| ENG 102, 111, 113, 191 or 205 | 3 |  |
| ENG 112 | Critical Approaches to Literature | 3 |
| HUM 103 | Invitation to the Humanities | 3 |
| MAT 105 | Elementary Statistical Methods | 2 |
| PED 101 | Physical Education | 1 |
| PED 103 | Physical Fitness | 3 |
| PHI 112 | Ethics | 3 |
| PSY 201 | Introduction to Psychology | 3 |
| PSY 250 | Life Span Development | 3 |
| SOC 201 | Sociological Imagination |  |

*Two summer nursing courses are required at Roberts Wesleyan College before beginning the junior year there. CPR certification is also a prerequisite.

This program may prepare the student to transfer into other BSN programs. However, each program has its own unique requirements and many are not very accommodating to transfer students. A student interested in transferring into another program should contact that school in their freshman year to determine their requirements and transfer policies.

## Nursing: Affiliate 3-2 Double Degree Program • BS and BSN

Nursing students wishing to receive a BS degree in biology from Geneva College may complete three years at Geneva before transferring to Roberts Wesleyan College or another BSN program. During those three years they complete all the college's core requirements for the BS degree and at least 28 credit hours of biology courses, including all the courses required for the biology major except BIO 420 . See page 40 of the catalog for the major requirements. Their program must include all the courses required for admission to the third year of the BSN program into which they wish to transfer. The first year at the nursing school is then accepted as equivalent to the senior year in fulfilling Geneva's degree requirements. The nursing school conveys the BSN after one additional year.

## It is also possible to complete a Bachelor of Science degree in Biology at Geneva and then enter one of many accelerated BSN programs.

See page 92 for the college's pre-medical program.

## Department of Business, Accounting, and Management

The mission of the Business, Accounting, and Management Department is to develop competent business practitioners who can be effective witnesses for our Lord in the workplace. We believe that business is a calling by God that involves integrating Biblical concepts such as wisdom, stewardship, justice, righteousness, and integrity. Therefore the department desires to develop graduates who are grounded in Biblical principles and business knowledge equipped to serve Jesus Christ in their vocational endeavors.

The department offers an MBA in the graduate studies division and baccalaureate degrees in accounting and in business with concentrations in finance/economics, sport management, management/human resource management, marketing, information systems, and aviation. The business programs emphasize the practical application of theory and good practice, and the faculty possesses both academic competence and professional experience in a variety of employment settings. The department prepares students for responsible positions in business, not-for-profit organizations, and government. The program also prepares students for graduate school and the professions.

Geneva College is a charter member of the Association of Collegiate Business Schools and Programs and received national accreditation in June 1997. The accounting major meets the Pennsylvania State Board of Accountancy requirements to sit for the Certified Public Accountant (CPA) examination.

Unique aspects of the business program include the extensive use of computer simulations and projects, the management lunch program with local executives, service in student professional clubs and organizations, and continual opportunities to personally interact with the faculty. Internship placements are available in a variety of work settings. The department offers intensive classes during periods immediately prior to and following regular semesters. These courses allow students to accommodate work schedules, internships, double majors, and other personal considerations.

In cooperation with the Community College of Beaver County (CCBC), Geneva College offers a four-year "dual degree" program in business and aviation. Students earn the associate in applied science degree (AAS) in professional piloting, aerospace management, or air traffic control from the Community College of Beaver County, plus the Bachelor of Science degree in Business Administration (BSBA) from Geneva College. Those graduating from the program qualify for the appropriate Federal Aviation Administration (FAA) ratings and certification.

The Business, Accounting, and Management Department also offer an Associate in Business Administration (ABA). All these courses may be applied toward a bachelor's degree if desired. College minors are offered in business, accounting, and finance/economics.

## Accounting Major - BSBA - Program requirements $\mathbf{6 3}$ credit hours

The accounting major prepares students for careers in managerial, governmental, or certified public accounting positions. Geneva's program affords students the opportunity to define their accounting track towards public or private accounting. Both tracks offer students instruction from CPA faculty and potential for internships in their related areas of interest. The public track is designed to meet the requirements of the State Board of Accountancy to sit for the CPA examination. This can be accomplished in a traditional undergraduate setting or in a combined undergraduate-graduate program. Accounting graduates are more than equipped to meet today's demand for well prepared and ethical accountants who are able to function in the business world.

| ACC 151, 152 | Accounting I, II | 3,3 |
| :--- | :--- | ---: |
| ACC 256 | Managerial Accounting | 3 |
| ACC 261, 262 | Intermediate Accounting I, II | 3,3 |
| ACC 357 | Taxation | 3 |
| ACC 363 | Advanced Accounting | 3 |
| ACC 365 | Special Topics in Accounting | 3 |
| ACC 450 | Accounting Systems and Software | 3 |
| ACC 457 | Auditing | 3 |
| BUS 110 | Business Foundations | 3 |
| BUS 241, 242 | Quantitative Analysis I, II | 3,3 |
| BUS 310 | Principles of Management | 3 |
| BUS 311 | Business Law | 3 |
| BUS 320 | Principles of Marketing | 3 |
| BUS 330 | Principles of Finance | 3 |
| BUS 400 | Biblical Management and Business Ethics | 3 |
| BUS 410 | Strategic Management | 3 |
| ECO 211, 212 | Micro and Macro Economics | 3,3 |

## Accounting Minor

Any 18 credit hours from among accounting (ACC) courses except ACC 457 Auditing.

## Business Major • BSBA - Program requirements 66 credit hours

Geneva's business major requires a 51 credit hour core that provides the broad foundation necessary to comprehend the variety of functions and activities in business. The core then integrates the functional components for a strategic view of management. The business major builds upon the core with the choice of a 12 credit hour concentration of upper division courses in a specialized area. Concentrations may be selected in management/human resource management, marketing, finance/economics, sport management, and information systems. Majors taking business/aviation use their aviation preparation as their concentration.

## Business Major core courses 51 credit hours

| ACC 151, 152 | Accounting I, II | 3,3 |
| :--- | :--- | ---: |
| BUS 110 | Business Foundations | 3 |
| BUS 115 | Business Communication | 3 |
| BUS 241, 242 | Quantitative Analysis I, II | 3,3 |
| BUS 310 | Principles of Management | 3 |
| BUS 311 | Business Law | 3 |
| BUS 314 | International Business | 3 |
| BUS 320 | Principles of Marketing | 3 |
| BUS 330 | Principles of Finance | 3 |
| BUS 350 | Human Resource Management | 3 |
| BUS 400 | Biblical Management and Business Ethics | 3 |
| BUS 410 | Strategic Management | 3 |
| BUS 415 | Operations Management | 3 |
| ECO 211, 212 | Micro and Macro Economics | 3,3 |
| Management/Entrepreneuership Concentration |  |  |
| Lead Faculty Member: Robert Reith |  |  |
| 12 credit hours: | Supervision | 3 |
| BUS 312 | Development of Information Systems I | 3 |
| BUS 341 |  |  |


| BUS 411 | Advanced Business Law | 3 |
| :--- | :--- | :--- |
| BUS 417 | The Entrepreneur | 3 |

Either BUS 493 Internship or BUS 495 Independent Study may be substituted for one of the above concentration courses upon approval of the Concentration Lead Faculty Member. Other course substitutions require the approval of the Department Chair or Vice-Chair. In the case of BUS 493, the internship MUST be central to the concentration of study.

## Finance Concentration

Lead Faculty Member: Dan Raver
12 credit hours:
ACC 357 Taxation 3
BUS 331 Investments 3
BUS 430 Intermediate Finance 3
ECO 311 Money, Credit, and Banking 3

Either BUS 493 Internship or BUS 495 Independent Study may be substituted for one of the above concentration courses upon approval of the Concentration Lead Faculty Member. Other course substitutions require the approval of the Department Chair or Vice-Chair. In the case of BUS 493, the internship MUST be central to the concentration of study.

## Marketing Concentration

Lead Faculty Member: William Pearce
12 credit hours:
BUS $420 \quad$ Marketing Research 3
BUS 421 Advertising and Promotion 3
or BUS 422 Sales and Sales Management 3
BUS 425 Consumer Behavior 3
BUS 428 Strategic Marketing Policy 3
Either BUS 493 Internship or BUS 495 Independent Study may be substituted for one of the above concentration courses upon approval of the Concentration Lead Faculty Member. Other course substitutions require the approval of the Department Chair or Vice-Chair. In the case of BUS 493, the internship MUST be central to the concentration of study.

## Human Resource Management Concentration

Lead Faculty Member: Joe Bucci
12 credit hours:
BUS $450 \quad$ Collective Bargaining \& Labor Relations 3
BUS 451 Compensation Management 3
BUS 452 Employee Rights 3
BUS 455 Strategic Human Resource Management 3
Either BUS 493 Internship or BUS 495 Independent Study may be substituted for one of the above concentration courses upon approval of the Concentration Lead Faculty Member. Other course substitutions require the approval of the Department Chair or Vice-Chair. In the case of BUS 493, the internship MUST be central to the concentration of study.

| International Business Concentration <br> Lead Faculty Member: Denise Murphy-Gerber <br> 12 credit hours: |  |
| :--- | :--- |
| COM 225 | International Communication |
| BUS 424 | International Marketing and Export Management |
| ECO 327 | Comparative Economic Systems |
| SPA 101 | Elementary Spanish I |
| or FLC 101 | Foreign Language and Culture I |
| or POL 341 | Politics of Global Economics |

Either BUS 493 Internship or BUS 495 Independent Study may be substituted for one of the above concentration courses upon approval of the Concentration Lead Faculty Member. Other course substitutions require the approval of the Department Chair or Vice-Chair. In the case of BUS 493, the internship MUST be central to the concentration of study.

## Economics

Lead Faculty Member: Ralph Ancil
12 credit hours:
ECO 311 Money, Credit and Banking 3
ECO 327 Comparative Economic Systems 3
ECO 350 History of Economic Thought 3
ECO 351 Intermediate Economic Theory 3

Either BUS 493 Internship or BUS 495 Independent Study may be substituted for one of the above concentration courses upon approval of the Concentration Lead Faculty Member. Other course substitutions require the approval of the Department Chair or Vice-Chair. In the case of BUS 493, the internship MUST be central to the concentration of study.

## Sport Management Concentration

Lead Faculty Member: Denise Murphy-Gerber
12 credit hours:
SPM 101 Introduction to Sport Management 3
SPM 201 Legal Issues in Sport 3
SPM 302 Facility Management and Design 3
SPM 401 Sport in American Culture 3

Either SPM 493 Internship or BUS 495 Independent Study may be substituted for any one of the above concentration courses upon approval of the Concentration Lead Faculty Member. Other course substitutions require the approval of the Department Chair or Vice-Chair. In the case of SPM 493, the internship MUST be central to the concentration of study.

Students should declare a concentration as soon as possible, and no later than the beginning of their junior year.

## Associate in Business - Program requirements 33 credit hours

| ACC 151,152 | Accounting I, II | 3,3 |
| :--- | :--- | ---: |
| BUS 110 | Business Foundations | 3 |
| BUS 115 | Business Communication | 3 |
| BUS 241 | Quantitative Analysis I | 3 |
| BUS 310 | Principles of Management | 3 |
| BUS 311 | Business Law | 3 |
| BUS 320 | Principles of Marketing | 3 |
| BUS 330 | Principles of Finance | 3 |
| ECO 211, 212 | Micro and Macro Economics | 3,3 |

## Business Minor

Eighteen credit hours:
ACC 151 Accounting I 3
BUS 110 Business Foundations 3

BUS $310 \quad$ Principles of Management 3
BUS 311 Business Law 3
and any six credit hours of upper-level business courses 6
A minor of an alternative 18 credit hours content may be taken with department chair approval.

## Finance/Economics Minor for non-business majors

Eighteen credit hours:
ACC 151 Accounting I 3
BUS 330 Principles of Finance 3
ECO 211 Micro Economics 3
ECO 212 Macro Economics 3
ECO 311 Money, Credit, and Banking 3
plus either BUS 331 Investments or any other 300 level economics course 3

## Business Administration and Aviation Dual Degrees • AAS and BSBA - 64 credit hours max CCBC

In cooperation with the Community College of Beaver County, Geneva College has developed a dual degree program by which a student may earn the Associate in Applied Science degree (AAS) in professional piloting, air traffic control, or aerospace management from the community college and the Bachelor of Science in Business Administration degree (BSBA) from Geneva. The program enhances the graduate's career potential by blending specific vocational training in aviation with the broader educational experience involved in earning a baccalaureate degree.

Community College of Beaver County's AAS in aviation can be earned before, after, or entirely apart from fulfillment of requirements for Geneva's BSBA. Two of the programs involve 129 or more credit hours as compared with 126 credit hours in a usual four-year one-degree program. Some students may prefer to plan for an additional semester or for some summer study.

## Department of Chemistry

The programs of instruction and mentoring offered by the chemistry department are intended to build a strong foundation for understanding chemical substances and their reactions. A good education consists of learning both the content and the process of a discipline, and this is certainly true in chemistry. The program has a strong emphasis on fundamental concepts, laboratory learning, and involvement in research. The department is approved by the American Chemical Society (ACS) for professional training in chemistry. Chemistry is a central subject to many other areas, and as such is a fascinating approach to understanding the intricacies of God's creation. It is also a tremendously useful discipline that offers many opportunities to work in vocations that help humankind through industry, environmental stewardship, medical service, research, and teaching.

The BS major in chemistry that is certified by the American Chemical Society requires 46 credit hours in chemistry courses and an additional 27-28 credit hours in mathematics, physics, and biology. Students may also earn a bachelor of science degree in biochemistry. Biochemistry has grown tremendously in importance as the foundation of medicine, pharmaceutical science, and biotechnology. A non-certified basic chemistry major can be earned with a minimum of 31 credit hours in chemistry and 16 credit hours in mathematics and physics, which is a popular option for students desiring to combine chemistry with a second major or minor, such as biology, mathematics, computer science, business, or physics. Double majors require very careful planning.

Students who desire to impact the lives of young people may find secondary education attractive, as there is a great need for qualified teachers of the sciences in schools. Geneva's program leading to secondary education certification by the state of Pennsylvania requires a total of 87 credit hours which include 38 credit hours in education. Alumni have been very successful in finding teaching positions.

The BS major in chemical engineering is administered by the chemistry department in cooperation with the engineering department. It is a rigorous program having a highly structured curriculum that provides good preparation for the workplace or for graduate school. Currently, the chemical engineering major is not accredited by any external agency. This is a matter that interested students may wish to discuss with the department faculty for current information on the status of this major.

## Chemistry Major- Basic Concentration - Program requirements 47 credit hours

Chemistry requirements $31+$ credit hours

| CHM 111 | General College Chemistry | 4 |
| :--- | :--- | :--- |
| CHM 221 | Organic Chemistry I | 4 |
| CHM 222 | Organic Chemistry II | 4 |
| CHM 232 | Quantitative Analytical Chemistry | 4 |
| CHM 421 | Current Topics Seminar | 1 |
| Any Advanced Laboratory (CHM 310-313) | 1 |  |

At least 13 credit hours of additional courses from the following (with due regard for prerequisites):

| CHM 304 | Inorganic Chemistry | 3 |
| :--- | :--- | ---: |
| CHM 305 | Advanced Organic Chemistry | 3 |
| CHM 306 | Instrumental Analysis | 3 |
| CHM 307 | Physical Chemistry I: Thermodynamics | 3 |
| CHM 308 | Physical Chemistry II: Structure and Dynamics | 3 |
| CHM 310 | Advanced Laboratory (Organic) | $1-2$ |
| CHM 311 | Advanced Laboratory (Instrumental) | 2 |
| CHM 312 | Advanced Laboratory-Physical/Inorganic | $1-2$ |
| CHM 313 | Biochemistry Laboratory | 1 |
| CHM 317 | Biochemistry I | 3 |
| CHM 318 | Biochemistry II | 3 |
| CHM 412 | Polymer Chemistry | 3 |
| CHM 420 | Chemical Research | $1-2$ |
| CHM 421 | Current Topics Seminar | 1 |
| Supporting Field |  |  |
| Mequirements 16 credit hours: | 4 |  |
| MAT 162 | Calculus I | 4 |
| PHY 201 | Calculus II | 4 |
| PHY 202 | College Physics I | 4 |
|  | College Physics II | 4 |

A passing grade on a chemistry comprehensive exam is required.

## Chemistry Major• BS - Professional Certification Concentration - Program requirements 71-72 credit hours

| Chemistry requirements 33 credit hours |  |  |
| :--- | :--- | :--- |
| CHM 111 | General College Chemistry | 4 |
| CHM 221 | Organic Chemistry I | 4 |
| CHM 222 | Organic Chemistry II | 4 |
| CHM 232 | Quantitative Analytical Chemistry | 4 |
| CHM 304 | Inorganic Chemistry | 3 |
| CHM 307 | Physical Chemistry I: Thermodynamics | 3 |
| CHM 308 | Physical Chemistry II: Structure and Dynamics | 3 |
| CHM 312 | Advanced Laboratory—Physical/Inorganic | 2 |
| CHM 317 | Biochemistry I | 3 |
| CHM 420 | Chemical Research | 2 |
| CHM 421 | Current Topics Seminar | 1 |
| Supporting Field requirements 27-28 credit hours: |  |  |
| BIO 112 | Introduction to Cellular Biology | 4 |
| MAT 161 | Calculus I | 4 |
| MAT 162 | Calculus II | 4 |
| MAT 261 | Calculus III | 4 |
| PHY 201 | College Physics I | 4 |
| PHY 202 | College Physics II | 4 |

Plus one of the following:

| ELE 309 | Electronic Devices and Circuits I | 4 |
| :--- | :--- | :--- |
| MAT 307 | Linear Algebra | 3 |


| MAT 360 | Numerical Methods | 3 |
| :--- | :--- | :--- |
| MAT 405 | Differential Equations | 3 |
| PHY 408 | Modern Physics | 3 |

Plus at least 8 credits chosen from among the following courses, of which at least 2 credits must be from CHM 310,311 , or 313 .

| CHM 305 | Advanced Organic | 3 |
| :--- | :--- | :--- |
| CHM 306 | Instrumental Analysis | 3 |
| CHM 310 | Advanced Laboratory (Organic) | $1-2$ |
| CHM 311 | Advanced Laboratory (Instrumental) | 2 |
| CHM 313 | Biochemistry Laboratory | 1 |
| CHM 318 | Biochemistry II | 3 |
| CHM 412 | Polymer Chemistry | 3 |
| CHM 421 | Current Topics Seminar | 1 |

A passing grade on a chemistry comprehensive exam is required.

## Biochemistry Major BS - Program requirements 73 credit hours

| Chemistry requirements 37 credit hours |  |  |
| :--- | :--- | ---: |
| CHM 111 | General College Chemistry | 4 |
| CHM 221 | Organic Chemistry I | 4 |
| CHM 222 | Organic Chemistry II | 4 |
| CHM 232 | Quantitative Analytical Chemistry | 4 |
| CHM 304 | Inorganic Chemistry | 3 |
| CHM 306 | Instrumental Analysis | 3 |
| CHM 307 | Physical Chemistry I: Thermodynamics | 3 |
| CHM 312 | Advanced Laboratory-Physical/Inorganic | 2 |
| CHM 313 | Biochemistry Laboratory | 1 |
| CHM 317 | Biochemistry I | 3 |
| CHM 318 | Biochemistry II | 3 |
| CHM 420 | Chemical Research | 2 |
| CHM 421 | Current Topics Seminar | 1 |
|  |  |  |
| Supporting Field requirements 28 credit hours: | 4 |  |
| BIO 112 | Introduction to Cellular Biology | 4 |
| BIO 319 | Genetics | 4 |
| BIO 405 | Molecular Biology | 4 |
| MAT 161 | Calculus I | 4 |
| MAT 162 | Calculus II | 4 |
| PHY 201 | College Physics I | 4 |
| PHY 202 | College Physics II | 4 |
| At least 8 credits chosen from the following Electives: |  |  |
| BIO 317 | Immunology | 3 |
| or BIO 421 | Genomics | 3 |
| CHM 305 | Advanced Organic | 3 |
| CHM 308 | Physical Chemistry II | 3 |
| CHM 310 | Advanced Laboratory (Organic) | $1-2$ |
| CHM 311 | Advanced Laboratory (Instrumental) | 2 |
| CHM 412 | Polymer Chemistry | 1 |
| CHM 421 | Current Topics Seminar |  |
|  |  | 4 |

A passing grade on a chemistry comprehensive exam is required.

## Chemistry Major BS - Secondary Education Certification - Program requirements 87 credit hours

| Chemistry requirements 33 credit hours |  |  |
| :--- | :--- | :--- |
| CHM 111 | General College Chemistry | 4 |
| CHM 221 | Organic Chemistry I | 4 |
| CHM 222 | Organic Chemistry II | 4 |
| CHM 232 | Quantitative Analytical Chemistry | 4 |
| CHM 304 | Inorganic Chemistry | 3 |
| CHM 307 | Physical Chemistry I: Thermodynamics | 3 |
| CHM 308 | Physical Chemistry II: Structure and Dynamics | 3 |
| CHM 312 | Advanced Laboratory-Physical/Inorganic | 2 |
| CHM 317 | Biochemistry I | 3 |
| CHM 420 | Chemical Research | 2 |
| CHM 421 | Current Topics Seminar | 1 |

Supporting Field requirements 16 credit hours:

| MAT 161 | Calculus I | 4 |
| :--- | :--- | :--- |
| MAT 162 | Calculus II | 4 |
| PHY 201 | College Physics I | 4 |
| PHY 202 | College Physics II | 4 |

Education requirements 38 credit hours:

EDU 202 | Social and Philosophical Foundations of |  |
| :--- | :--- | :--- |
|  | Modern Education |

EDU 211 Educational Psychology 3
EDU 217 Initial Field Experience - Secondary 1
EDU 290 Technology and Learning in Education 2
EDU 375 Exceptionality in the Secondary School 3
EDU 413 Content Literacy in Secondary Classroom 3
EDU 414 Advanced Secondary Field Experience 1
EDU 420 Educational Assessment 3
EDU 432 Student Teaching Performance - Secondary 4
EDU 433 Student Teaching Portfolio 4
EDU 434 Student Teaching Seminar 4
PSY 201 Introduction to Psychology 3
SCS 403 Teaching of Science in Middle \& Secondary Schools 4
Chemistry majors with secondary education certification are not required to take a HUM 304 core course.
For certification to teach in Pennsylvania, the minimum program requirements must include:

| CHM 304 | Inorganic Chemistry | 3 |
| :--- | :--- | :--- |
| CHM 307 | Physical Chemistry I: Thermodynamics | 3 |
| CHM 308 | Physical Chemistry II: Structure and Dynamics | 3 |
| CHM 312 | Advanced Laboratory-Physical/Inorganic | 2 |
| CHM 317 | Biochemistry I | 3 |
| CHM 420 | Chemical Research | 2 |
| Plus the education requirements listed on page 60 |  |  |

Chapter 354, "Preparation of Professional Educators," was enacted in 2000 in Pennsylvania. This law mandates certain regulations in the preparation of professional educators in the state. Students are responsible to be certain they are meeting regularly with their adviser in regard to this legislation. Geneva College is not responsible for students who will not be certified because of failure to meet certification requirements at the time of graduation.

A passing grade on a chemistry comprehensive exam is required.

## Chemistry Minor

Twenty credit hours in Chemistry as follows: CHM 111 General College Chemistry

4

| CHM 221 | Organic Chemistry I | 4 |
| :--- | :--- | :--- |
| CHM 222 | Organic Chemistry II | 4 |
| CHM 232 | Quantitative Analytical Chemistry | 4 |
| CHM 421 | Current Topics Seminar | 1 |

## Chemical Engineering Major - BS - Program requirements 94 credit hours

Chemistry requirements 27 credit hours:
CHM $111 \quad$ General College Chemistry 4
CHM 221 Organic Chemistry I 4

CHM 222 Organic Chemistry II 4
CHM 232 Quantitative Analytical Chemistry 4
CHM 306 Instrumental Analysis 3
CHM 307 Physical Chemistry I: Thermodynamics 3
CHM $308 \quad$ Physical Chemistry II: Structure and Dynamics 3
CHM 312 Advanced Laboratory—Physical/Inorganic 2
Chemical Engineering Program requirements 39 credit hours:
CHE $301 \quad$ Chemical Engineering Processes
CHE 302 Unit Operations 3
CHE 401 Reactor Design 3
EGR 101 Introduction to Engineering 2
EGR 102 Computer-Aided Engineering 2
EGR 211 Solid Mechanics 4
EGR 212 Linear Circuit Analysis 3
EGR 315 Transport Processes 4
EGR 316 Process Control 3
EGR 481, 482 Senior Design Project 2,2
MEE 416 Design of Thermal Systems 4
MEE 417 Fluid Mechanics 4
Supporting Field requirements 27 credit hours:
CSC 101 Introduction to Programming 3
MAT 161 Calculus I 4
MAT 162 Calculus II 4
MAT 261 Calculus III 4
MAT 405 Differential Equations 4
PHY 201 College Physics I 4
PHY 202 College Physics II 4
Chemical engineering majors are not required to take the HUM 304 and are required to take only one social science option, in addition to POL 352.

## Department of Communication

The Department of Communication offers a variety of academic experiences to help students discover God's calling for their lives. The Communication core is designed to expose the student to the whole realm of communication. This core serves as a foundation to support concentrations in integrated media, public relations, visual communication, writing, theatre, and general communication. Our program also prepares students for graduate studies in both Communication and Communication Disorders. Communication is a gift from God and we are stewards and servants of that gift. We believe that we are called to use communication creatively and compassionately to bridge differences of culture, to embody servant leadership, and to transform society for the Kingdom of Christ.

## Communication Major • BA - Program requirements 55-57 credit hours <br> Communication core 37 credit hours: <br> COM 111 Introduction to Communication 3 <br> (prerequisite for the following communication core courses) <br> CDS 190 Introduction to Communication Disorders <br> 3

| $\text { COM } 160$ | Interpretive Reading |  |
| :---: | :---: | :---: |
| or COM 165 | Acting Principles | 3 |
| COM 210 | Leadership Communication |  |
| or COM 220 | Group Communication | 3 |
| COM 215 | Argumentation and Debate | 3 |
| COM 225 | Intercultural Communication | 3 |
| COM 250 | Mediated Communication | 3 |
| COM 310 | Public Speaking | 3 |
| COM 315 | Communication Process | 3 |
| COM 320 | Communication Workshop Facilitation | 3 |
| COM 370 | Foundations of the Theater | 3 |
| COM 400 | The Communication Professional | 3 |
| All communication majors must fulfill a one credit practicum requirement outside of the concentration area from: |  |  |
| COM 200 | Intercollegiate Forensics | 1 |
| COM 201 | Theatre Practicum | 1 |
| COM 202 | Public Relations Practicum | 1 |
| COM 203 | Radio Practicum | 1 |
| COM 204 | Media Production Practicum | 1 |
| VIS 205 | Visual Communication Practicum | 1 |

## Concentrations

In addition to the communication core and practicum requirement, each student will choose one of the following concentrations. Students who wish to declare two concentrations may not have more than two courses that overlap. An asterisk* indicates a course is required for that concentration.

| Communications/Theatre Concentration |  |  |
| :--- | :--- | ---: |
| Choose performance or technical production track |  |  |
| Performance |  |  |
| 18 credit hours: |  |  |
| *COM 201 | Theatre Practicum (three) | $1,1,1$ |
| *COM 265 | Intermediate Acting | 3 |
| COM 300 | Special Topics in Theatre | $1-3$ |
| *COM 365 | Acting Styles | 3 |
| *COM 370 | Foundations of Theatre | 3 |
| *ENG 255 | Survey of Dramatic Literature | 3 |

Technical production
18 credit hours:
*COM 172 Stagecraft I 3
*COM 173 Stagecraft II 3
*COM 201 Theatre Practicum (three) 1,1,1
*COM 270 Lighting and Scene Design 3
*COM 370 Foundations of Theatre 3
Optional:
COM 160 Interpretive Reading 3
COM 170 Costume History and Design 3
COM 171 Make-up 3
COM 174 Stage Management 3
COM 260 Play Directing 3
ENG 256 Shakespeare 3

## Communication Studies Concentration

Adviser: Todd Allen
18 credit hours beyond one practicum listed below:
BUS 115 Business Communication
*COM 210 Leadership Communication

| or COM 220 | Group Communication (the one not taken in the core) | 3 |
| :--- | :--- | :--- |
| *COM 230 | Interpersonal Communication | 3 |
| COM 315 | Communication Process | 3 |
| COM 330 | Special Topics in Communication | 3 |
| *ENG 113 | Researched Writing | 3 |
| MAT 105 | Elementary Statistical Methods | 3 |
| One Practica: | COM 200, 201, 202, 203, 204, or VIS 205 | 1 |

## Integrated Media Concentration

Adviser: Pete Croisant
18 credit hours beyond COM 203 or COM 204 listed below:
*COM $140 \quad$ Radio Production Workshop
*COM 145 Visual Storytelling 3
COM 240 Media Presentation 3
COM 245 Writing for Integrated Media 3
COM 330 Special Topics in Communication 3
COM 340 Advanced Audio Production 3
COM 345 Advanced Video Production 3
*COM $350 \quad$ Principles of Multimedia 3
*Two Practica: COM 203 and COM 2041,1

## Public Relations Concentration

Adviser: Jeff Schindel
$\begin{array}{ll}18 \text { credit hours beyond the two practica listed below: } \\ \text { *COM } 180 & \text { Introduction to Public Relations }\end{array}$
COM 245 Writing for Integrated Media
or ENG 241 Newswriting
or ENG 343 Feature Writing 3
*COM 280 Public Relations Publications 3
COM 330 Special Topics in Communication 3
COM $350 \quad$ Principles of Multimedia 3
*COM 380 Advanced Public Relations 3
$\begin{array}{cl}\text { ENG 205 } & \text { Advanced Composition } \\ \text { or ENG 113 } & \text { Researched Writing }\end{array}$

* ENG 242 Editing 3
*Two Practica: COM 202, ENG 221 1,1
Visual Communication Concentration
Adviser: Todd Allen
18 credit hours beyond the one practicum listed below:
CHM $160 \quad$ Chemistry in Art
COM 145 Visual Storytelling 3
COM 270 Lighting and Scene Design 3
ENG 212 Cinema 3
*VIS 201 Design I 2
*VIS 202 Design II 3
VIS 205 Visual Communication Practicum 1
VIS 300 Basic Drawing 3
*VIS 330 Topics in Visual Communication 3

| Writing Concentration |  |  |
| :--- | :--- | :--- |
| Adviser: Jeff Schindel |  |  |
| 18 credit hours beyond the practica listed below: | 3 |  |
| *COM 245 | Writing for Integrated Media | 3 |
| ENG 111 | Topics in Contemporary Writing |  |
| ENG 205 | Advanced Composition | 3 |
| or ENG 113 | Researched Writing |  |


| ENG 215 | Creative Writing: Fiction |  |
| :--- | :--- | ---: |
| and/or ENG | 216 Creative Writing: Poetry | 3 |
| ENG 241 | Newswriting | 3 |
| ENG 242 | Editing | 3 |
| ENG 311 | Technical Writing | 3 |
| ENG 343 | Feature Writing | 3 |
| ENG 344 | Publishing | 3 |
| Two Practica: | ENG 221, ENG 223 | 1,1 |

## Communication Disorders Major - BA - Program requirements 64 credit hours

 Adviser: Elaine Hockenberger| CDS 160 | Introduction to Sign Language | 3 |
| :--- | :--- | :--- |
| CDS 190 | Introduction to Communication Disorders | 3 |
| CDS 220 | Language Development | 3 |
| CDS 230 | Phonetics | 3 |
| CDS 250 | Treatment Procedures in Communicative Disorders | 3 |
| CDS 260 | Introduction to Audiology | 3 |
| CDS 270 | Aural Rehabilitation | 3 |
| CDS 280 | Anatomy and Physiology of Speech Mechanism | 3 |
| CDS 340 | Voice/Fluency Disorders | 3 |
| CDS 350 | Language Disorders in Children | 3 |
| CDS 360 | Articulation/Phonological Disorders in Children | 3 |
| CDS 370 | Neurogenic Communication Disorders in Adults | 3 |
| **CDS 450 | Clinical Experience in Communication Disorders | 6 |
| COM 225 | Intercultural Communication | 3 |
| LIN 219 | Introduction to Linguistics | 3 |
| LIN 220 | Applied Linguistics | 3 |
| PHY 160 | Introduction to Acoustics | 3 |
| MAT 105 | Elementary Statistical Methods |  |
| or PSY 205 | Psychological Statistics | 3 |

Six additional credit hours in communication options:
Any choice from the communication core with the exception of COM 111 Introduction to Communication, COM 400 The Communication Professional, and CDS 190 Introduction to Communication Disorders.

* Indicates required course, ${ }^{* *}$ Communication Disorders majors must have an overall GPA and major GPA of 3.0 to enroll in CDS 450 Clinical Experience in Communication Disorders.


## Communication Disorders Minor

Any 18 credit hours from the following courses:
CDS 190 Introduction to Communication Disorders 3
CDS 220 Language Development 3
CDS 230 Phonetics 3
CDS 250 Treatment Procedures in Communicative Disorders 3
CDS 260 Introduction to Audiology 3
CDS 270 Aural Rehabilitation 3
CDS 280 Anatomy and Physiology of the Speech Mechanism 3
CDS 340 Voice/Fluency Disorders 3
CDS 350 Language Disorders in Children 3
CDS 360 Articulation/Phonological Disorders in Children 3
CDS 370 Neurogenic Communication Disorders in Adults 3

## Department of Computer Science, Mathematics and Physics

By developing and using the tools and capacities the God of creation has provided for our service to Him and each other, the department seeks to prepare students to enter industry and business, graduate school, or the teaching profession. Insights and skills are developed through majors in applied mathematics, computer science, mathematics education, and physics.

## Computer Science Major - BS - Program requirements 69-72 credit hours

The field of Computer Science is one of rapid growth. Students entering this field must be prepared to meet the challenges of a discipline immersed in constant change. Consequently the program provides a foundational survey of Computer Science topics through a set of courses required by all majors, and then gives depth in a particular area of application tailored to each student's interests and career goals through a choice of concentrations.

| CSC 101 | Introduction to Programming | 3 |
| :--- | :--- | ---: |
| CSC 102 | Object-Oriented Programming | 3 |
| CSC 204 | Data Structures and Algorithm Analysis | 3 |
| CSC 230 | Computer Architecture | 3 |
| CSC 306 | Software Engineering | 3 |
| CSC 309 | Software Engineering Project | 3 |
| CSC 333 | Operating Systems | 3 |
| CSC 365 | Database Systems | 3 |
| CSC 401 | Christian Ethics \& Computer Science | 1 |
| CSC 450 | Networks | 3 |
| CPE 220 | Digital Systems | 3 |
| EGR 213 | Systems Engineering | 3 |
| MAT 130 | Discrete Mathematics | 3 |
| MAT 161 | Calculus I | 4 |
| MAT Option | Any math course numbered 105 or higher | 3,4 |

Plus one of the following concentrations:

## Web Technology Concentration

15 credit hours from the following:
CSC 205 GUI Design \& Programming 3

CSC 206 Web Programming 3
CSC 364 E-Commerce 3
CSC 407 Web Engineering 3
CSC 452 Computer Security 3
Information Systems Concentration
15 credit hours from the following:
BUS 110 Business Foundations 3

BUS 341 Development of Information Systems I 3
BUS 342 Development of Information Systems II 3
CSC 206 Web Programming 3
CSC 364 E-Commerce 3
ECO 211 or ECO 212 Micro or Macro Economics for social science core

## Hardware Concentration

15 credit hours from the following:
CPE 303 Microprocessor Systems 3
CPE 304 Advanced Digital Logic 3
CPE 490 Embedded Systems 3
CSC 452 Computer Security 3
EGR 212 Linear Circuit Analysis 3
MAT 162 Calculus II for MAT option
Science/Math Programming Concentration
18 credit hours from the following:
MAT 261 Calculus III 4
MAT 307 Linear Algebra 3
MAT 309 Introduction to Abstract Algebra 2
MAT 310 Introduction to Real Analysis 2
MAT 350 Numerical Methods 3
PHY 202 College Physics II 4

PHY $201 \quad$ College Physics I for science core
MAT 162 Calculus II for MAT option

## Computer Science Minor

18 credit hours:
CSC 101 Introduction to Programming 3
CSC 102 Object-Oriented Programming 3
CSC 230 Computer Architecture 3
CPE 220 Digital Systems 3

Plus six credit hours of computer science courses at 200-level or above level

## Applied Mathematics Major • BS - Program requirements 67 credit hours

To be stewards of God's creation, we are given the precious gift of mathematics. The department offers training in the tools of mathematics for students in science and engineering, as well as studies of the properties of mathematics for those who will pursue teaching or graduate school.

| 34 credit hours of mathematics courses including: |  |  |
| :--- | :--- | :--- |
| MAT 130 | Discrete Mathematics | 3 |
| MAT 161 | Calculus I | 4 |
| MAT 162 | Calculus II | 4 |
| MAT 261 | Calculus III | 4 |
| MAT 307 | Linear Algebra | 3 |
| MAT 309 | Introduction to Abstract Algebra | 2 |
| MAT 310 | Introduction to Real Analysis | 2 |
| MAT 350 | Numerical Methods | 3 |
| MAT 405 | Differential Equations | 4 |
| MAT 407 | Advanced Topics | 3 |
| MAT 409 | Partial Differential Equations | 3 |

Nine credit hours of computer science (CSC) not including CSC 401.
24 credit hours in an applied discipline such as BUS, CIE, CPE, CSC, EGR, ELE, MEE, or PHY with 12 of these credit hours in the same discipline. CSC 401 may not be used to fill any of these 24 credits.

## Mathematics Education Major - BS - Program requirements 80 credit hours

MAT 105 Elementary Statistical Methods 3

MAT 130 Discrete Mathematics 3
MAT 161 Calculus I 4
MAT 162 Calculus II 4
MAT 261 Calculus III 4
MAT 307 Linear Algebra 3
MAT 309 Introduction to Abstract Algebra 2
MAT $310 \quad$ Introduction to Real Analysis 2
MAT 350 Numerical Methods 3
MAT 404 College Geometry 3
CSC 101 Introduction to Programming 3
EDU $380 \quad$ History of Mathematics and Mathematics Education 2
EDU 382 Math Curricula in the Middle and Secondary School 2
MAT 403 Methods of Teaching Math --
(included in secondary certification requirement)
PHY $201 \quad$ College Physics I
ECO 100 Fundamentals of Economics
or ECO 211 Micro Economics
or ECO 212 Macro Economics
3
Plus required courses for secondary certification. See pages 59-63.

## Mathematics Minor

Any 18 credit hours above the level of MAT 105.

## Physics Major • BS - Program Requirements 61-65 credit hours

The major provides a basis for entering industrial laboratories as a professional physicist or in a field related to physics, for working toward an advanced degree, or for obtaining certification to teach.

| PHY 201 | College Physics I | 4 |
| :--- | :--- | ---: |
| PHY 202 | College Physics II | 4 |
| PHY 303 | Advanced Physical Measurement I | $1-3$ |
| PHY 304 | Advanced Physical Measurement II | $1-3$ |
| CHM 111 | General College Chemistry | 4 |
| CHM 221 | Organic Chemistry I | 4 |
| or CHM 232 | Quantitative Analytical Chemistry | 4 |
| ELE 305 | Electromagnetic Fields and Waves | 4 |
| ELE 309 | Electronic Devices and Circuits I | 4 |
| ELE 410 | Electronic Devices and Circuits II | 4 |
| MAT 161 | Calculus I | 4 |
| MAT 162 | Calculus II | 4 |
| MAT 261 | Calculus III | 4 |
| MAT 405 | Differential Equations | 4 |
| MAT 407 | Advanced Topics | 3 |

Plus 12 credit hours of major options selected from physics courses numbered 300 or higher.

The student seeking certification to teach physics is required to fulfill the 12 major option credit hours with the following selection of courses:

| PHY 301 | Classical Mechanics | 3 |
| :--- | :--- | :--- |
| PHY 306 | Optics | 3 |
| PHY 307 | Thermodynamics | 3 |
| PHY 408 | Modern Physics | 3 |

In addition, those preparing to teach must include general and professional education courses specified on page 63.

## Physics Minor

At least 18 credit hours from:

| PHY 160 | Introduction to Acoustics |  |
| :--- | :--- | ---: |
| or SCS 201 | Astronomy | 3 |
| PHY 201 | College Physics I | 4 |
| PHY 202 | College Physics II | 4 |
| PHY 250 | Observational Astronomy | 3 |
| PHY 301 | Classical Mechanics | 3 |
| PHY 303 | Advanced Physical Measurement I | $1-3$ |
| PHY 304 | Advanced Physical Measurement II | $1-3$ |
| PHY 306 | Optics | 3 |
| PHY 307 | Thermodynamics |  |
| or CHM 307 | Physical Chemistry I: Thermodynamics |  |
|  | (course is cross-listed) | 3 |
| PHY 408 | Modern Physics | 3 |
| PHY 491 | Special Topics | $1-3$ |
| ELE 305 | Electromagnetic Fields and Waves | 4 |
| ELE 309 | Electronic Devices and Circuits I | 4 |
| ELE 410 | Electronic Devices and Circuits II | 4 |
| Only one of SCS 201 and PHY 160 may be used toward a physics minor. |  |  |

## Department of Education

The mission of the education department of Geneva College is to prepare competent professional teachers committed to excellence and integrity in teaching; addressing student needs; continuing professional development; collaborating with
colleagues, parents, and community members; and identifying and analyzing educational issues from a Christian perspective.

Geneva has a strong interest in preparing well-qualified Christian teachers for careers in both public and Christian schools. The minor in Christian school teaching provides courses in Biblical studies, philosophy, and Christian education to complement the professional education program for students planning to teach in Christian elementary or secondary schools. The option of student teaching overseas in a mission related or international school allows students to experience Christian or international service as well as have a significant cross-cultural experience.

Programs lead to certification in Pennsylvania through the Pennsylvania Department of Education. Through inter-state certification agreements, certification is readily achieved in many other states. A listing of states with which the Pennsylvania Department of Education has negotiated inter-state certification agreements is available in the office of the Geneva College Department of Education. Geneva graduates are assured of general acceptance as teachers of the subject areas for which the college has approved programs.

The department offers two degrees: The Bachelor of Science in Elementary Education and the Bachelor of Science in Special Education.

The Bachelor of Science Degree in Special Education, part of the elementary and special education integrated degree program, is designed to prepare students, from a Christian worldview, for professional careers working with students diagnosed with mental and physical disabilities, including certification areas of mentally retarded, brain injured, physically handicapped, learning disabled, and socially or emotionally disturbed. The core curriculum assures the graduate of having the skills and knowledge required for initial employment in the public and private schools of this state and around the world. Practical experiences begin with the freshman and sophomore year and peak with the senior year. The experiences provide opportunities for students to apply the knowledge and skills acquired at Geneva. The practical experiences culminate in the senior year with two semesters of field-based training under the mentorship of both local school and college supervisors.

## Admission to Candidacy in Professional Education Program

Students must gain admission into the professional education program in order to take 300 and 400 level EDU courses.

This candidacy is initiated through the student's adviser during the sophomore year. The criteria as mandated by state regulation Chapter 354 are:

1) Pass the Pre Professional Skills Test (PPST): Reading, writing, math (Praxis Exams)
2) Complete 48 credit hours or more
3) Achieve and maintain an overall GPA of 3.00 (career GPA which includes transfer course work)
4) Complete three credit hours of college level math

Complete three credit hours of statistics
Complete three credit hours of English composition
Complete three credit hours of English literature, which can be fulfilled
with HUM 103, 203 and 303 sequence
5) Obtain two letters of recommendation from education faculty
6) Approval of candidacy by the chair of the education department

## Teacher Certification Requirements

In order to be certified, pre-service teachers must demonstrate knowledge competence in the following areas:

1) Professional skills: writing, reading, and mathematics, are skills that students should have when they enter college.
2) General knowledge: curriculum areas such as English, humanities, social science, mathematics, and natural science provide content preparation which teachers need to be prepared to teach.
3) Content area knowledge: knowledge about the specific subject area or areas in which certification is sought is a must.

Those applying for a teaching certificate must have a college degree and be recommended for certification by a Geneva College department of education certification officer. In addition, the applicant must supply to the Pennsylvania Department of Education passing scores on the PRAXIS appropriate for their certification areas.

The requirements for the Elementary Education and Special Education major (BSEd) certification and for secondary content area majors are detailed in this catalog. The requirements for the procedures to be followed by those who already have a college degree and who are seeking certification alone in one of the content areas for which Geneva College has approved programs are described in this portion of the catalog also. On successful completion of requirements for certification at the elementary or secondary levels, students will be recommended to the Pennsylvania Department of Education for Certification.

Requirements for certification may change in response to changes required by the Pennsylvania Department of Education. While there is usually a phase-in period for new requirements, students enrolling under this catalog could be affected by such changes. While students would be able to graduate from the college under the program criteria described in this catalog, they might not be able to be certified if they do not meet the new requirements for certification. Students will be advised of any such changes and of the impact of those changes on their certification programs.

Chapter 354, Preparation of Professional Educators, was enacted in 2000 in Pennsylvania. This law mandates certain regulations in the preparation of professional educators in the state. Students are responsible to be certain they are meeting regularly with their adviser in regard to this legislation. Geneva College is not responsible for students who will not be certified because of failure to meet certification requirements at the time of graduation.

## Approved Certification Programs

Geneva College certification programs approved by the Pennsylvania Department of Education are as follows:
Biology
Chemistry
Elementary Education
English
Mathematics
Music Education
Physics
Social Studies
Special Education (dual certification with elementary education)
In the Spring of 2007, the Pennsylvania Department of Education approved a significant restructuring of teacher certification programs. New freshmen, who enter Geneva College in the fall semester of 2010, will have the option to enroll in Early Childhood/Elementary Education (PK-4) and Special Education (PK-8), Middle Level Education (48) with different options, or various specific secondary education programs. All teacher candidates who complete their program after August 31, 2013 must be enrolled in one of the new certification programs.

## General Education Requirements

All teachers must complete core requirements as described on page 17.
Chapter 354, Preparation of Professional Educators, was enacted in 2000 in Pennsylvania. This law mandates certain regulations in the preparation of professional educators in the state. Students are responsible to be certain they are meeting regularly with their adviser in regard to this legislation. Geneva College is not responsible for students who will not be certified because of failure to meet certification requirements at the time of graduation.

## Professional Education Requirements (72-75 credit hours) For Elementary Certification <br> EDU 202 Social and Philosophical Foundations of Modern Education 3 <br> EDU 211 Educational Psychology 3 <br> EDU 216 Initial Field Experience—Elementary 1

| EDU 250 | Integrating the Arts in the Elementary Curriculum | 3 |
| :--- | :--- | ---: |
| *EDU 290 | Technology and Learning in Education | 2 |
| *Not required of new students entering Fall 2009 |  |  |
| EDU 320 | Teaching of Reading in the Elementary Classroom | 3 |
| EDU 330 | Teaching of Mathematics in the Elementary Classroom | 3 |
| EDU 332 | Children's Literature | 3 |
| EDU 333 | Curriculum, Instruction, and Classroom Management | 3 |
| EDU 335 | Advanced Teaching of Reading in the Elementary Classroom 3 |  |
| EDU 336 | Teaching of Language Arts in the Elementary Classroom | 3 |
| EDU 337 | Teaching of Social Studies in the Elementary Classroom | 3 |
| EDU 339 | Teaching of Science in the Elementary Classroom | 3 |
| EDU 370 | Exceptionality in the Elementary School | 3 |
| EDU 420 | Educational Assessment | 3 |
| EDU 431 | Student Teaching Performance-Elementary | 4 |
| EDU 433 | Student Teaching Portfolio | 4 |
| EDU 434 | Student Teaching Seminar | 4 |
| **EDU 472 | Academic Skill Intervention for Exceptional Children | 3 |
| **EDU 474 | Teaching Reading to the Exceptional Child | 3 |
| **Required of |  |  |

## Reading Concentration

15 credit hours:
EDU 320 Teaching of Reading in the Elementary Classroom 3
EDU 332 Children's Literature 3
EDU 335 Advanced Teaching of Reading in the Elementary Classroom 3
EDU 336 Teaching of Language Arts in the Elementary Classroom 3
EDU 474 Teaching Reading to the Exceptional Child 3
For Elementary Education/Special Education

| EDU 430 | Student Teaching Performance-SPED | 2 |
| :--- | :--- | :--- |
| EDU 431 | Student Teaching Performance-Elementary | 2 |
|  | Total: 58 credit hours |  |

## For Special Education Certification

| Required Elementary Education courses (above) plus: |  |  |
| :--- | :--- | :--- |
| EDU 214 | Initial Field Experience-Special Education | 1 |
| EDU 470 | Advanced Studies in Special Education | 3 |
| EDU 471 | Assessment of Exceptional Children | 3 |
| EDU 472 | Academic Skill Intervention for Exceptional Children | 3 |
| EDU 473 | Behavioral Skill Intervention for Exceptional Children | 3 |
| EDU 474 | Teaching Reading to the Exceptional Child | 3 |
| EDU 475 | The Role and Function of the Special Education Teacher | 3 |

## For Secondary Education

Chapter 354, Preparation of Professional Educators, was enacted in 2000 in Pennsylvania. This law mandates certain regulations in the preparation of professional educators in the state. Students are responsible to be certain they are meeting regularly with their adviser in regard to this legislation. Geneva College is not responsible for students who will not be certified because of failure to meet certification requirements at the time of graduation.

For all Secondary Certification except English and Music Education:

| EDU 202 | Social and Philosophical Foundations of Modern Education | 3 |
| :--- | :--- | :--- |
| EDU 211 | Educational Psychology | 3 |
| EDU 217 | Initial Field Experience-Secondary | 1 |
| EDU 290 | Technology and Learning in Education | 2 |
| EDU 375 | Exceptionality in the Secondary School | 3 |
| EDU 413 | Content Literacy in the Secondary Classroom | 3 |
| EDU 414 | Advanced Secondary Field Experience | 1 |


| EDU 420 | Educational Assessment | 3 |
| :---: | :---: | :---: |
| EDU 432 | Student Teaching Performance-Secondary | 4 |
| EDU 433 | Student Teaching Portfolio | 4 |
| EDU 434 | Student Teaching Seminar |  |
| Methods of Teaching Course (403) in the Certification area |  |  |
| Total: 35 credit hours |  |  |
| For English Certification: |  |  |
| EDU 202 | Social and Philosophical Foundations of Modern Education | 3 |
| EDU 211 | Educational Psychology | 3 |
| EDU 217 | Initial Field Experience-Secondary |  |
| EDU 375 | Exceptionality in the Secondary School | 3 |
| EDU 413 | Content Literacy in the Secondary Classroom | 3 |
| EDU 420 | Educational Assessment | 3 |
| EDU 432 | Student Teaching Performance-Secondary | 4 |
| EDU 433 | Student Teaching Portfolio | 4 |
| EDU 434 | Student Teaching Seminar | 4 |
| ENG 405 | Teaching of English - Secondary | 3 |
| take with | 414 Advanced Secondary Field Experience | 1 |
|  | Total: 32 credit hours |  |
| For Music Education Certification: |  |  |
| EDU 202 | Social and Philosophical Foundations of Modern Education | 3 |
| EDU 211 | Educational Psychology | 3 |
| EDU 216 | Initial Field Experience - Elementary | 1 |
| EDU 414 | Advanced Secondary Field Experience | 1 |
| EDU 431 | Student Teaching Performance-Elementary | 4 |
| EDU 432 | Student Teaching Performance-Secondary | 4 |
| EDU 433 | Student Teaching Portfolio | 4 |
| EDU 434 | Student Teaching Seminar | 4 |
|  | Total: 24 credit hours |  |

## Elementary and Secondary Education

All elementary and secondary education students must successfully complete three credit hours of college level math and three credit hours of statistics.

## Admission to Advanced Field Experiences

In the elementary education program, enrollment in advanced field experiences, or elementary education block classes, EDU 332, EDU 333, EDU 335, EDU 336 and EDU 337 requires the following course work in the elementary education program: EDU 202, EDU 211, EDU 216, EDU 250, EDU 290, EDU 320, EDU 330, and EDU 370. Students must have earned a grade of C or better in EDU 320 and EDU 330.

1) Acceptable personal and professional qualities and habits, including grooming and dress as defined in the Pennsylvania's Code of Professional Practice and Conduct for Educators.
2) Current Act 33, 34, and 151 clearances.
3) A cumulative grade point average: 3.00 or above (includes transfer work)

In the elementary/special education program, students must complete the elementary education advanced field experiences as noted above, and enroll in EDU 471, EDU 472, EDU 473, EDU 474, and EDU 475.

## Admission to Student Teaching

Enrollment in student teaching requires approval of an application by the director of student teaching. The following criteria must be met in order for applications to be approved:

1) A cumulative grade point average:
3.00 or above (includes transfer work)
2) Completion of the following courses:

For EDU 431, EDU 433, and EDU 434 elementary: all courses required for admission to advanced field experience, and EDU 339.
For EDU 432, EDU 433, and EDU 434 secondary: all professional and methods courses required for specific major.
3) For student teaching and certification purposes, all courses in elementary education or in professional education for secondary certification candidates must be passed with grades of C or better. The overall GPA must be as per the Chapter 354 regulations.
4) Completion of at least 96 credit hours of college work.
5) Acceptable personal and professional qualities and habits, including grooming and dress as defined in the Pennsylvania's Code of Professional Practice and Conduct for Educators.
6) Current Act 33, 34, and 151 clearances.
7) Approval of advanced field experience faculty (elementary/special education) methods and advanced field experience professors (secondary) and approval of the department chair.

## Professional Semester

Student teaching, EDU 431 or EDU 432 and EDU 433 and EDU 434, may be scheduled for either semester of the senior year. Student teachers must spend the entire school day for a semester in a school classroom and are to follow the same daily schedule as their cooperating teacher. It is recommended that student teachers not take a course in addition to student teaching. Student teaching is a full-time task and is to be the student teacher's top priority. If, for some reason, other course work must be taken, no more than one other course may be taken by a student teacher. The separate courses EDU 431, EDU 433, and EDU 434 for elementary majors and EDU 432, EDU 433, and EDU 434 for secondary certification students must be taken together.

If a student is going to be recommended for certification by the Geneva College Department of Education, the student must student teach through Geneva College and be observed by Geneva College faculty. To be recommended by the department of education for certification, a student must receive at least a grade of B in EDU 430/431/432.

Expenses incurred incidental to student teaching such as and including transportation, food, housing, and books are the responsibility of the student as are incidental expenses associated with any other class. There may be occasions, such as fall break and spring break, when the student teaching schedule does not provide for a break at the time that regular college breaks are scheduled.

## International

Geneva College has joined with several other Christian colleges in the Christian College Teacher Education Coordinating Council (CCTECC). Through CCTECC, Geneva may sponsor qualified students who attend Geneva to do a portion of their student teaching in mission schools or selected other schools. The first part of student teaching will be completed in a school near Geneva College under supervision of Geneva faculty. The final seven to nine weeks will be done in an approved missions or international school.

## Special Students

1) Students who are transients (page 188) and who wish to student teach through Geneva College, but who are going to be recommended for certification by another institution to which they will transfer the transcript of their student teaching, must file an application for student teaching by the appropriate deadline with the Geneva College Department of Education during the year prior to the one in which they plan to student teach, meet the requirements listed above for admission to student teaching, submit a letter from the dean of academic administration or chair of the education department of their college recommending them for student teaching, and supply a current official transcript of their college work to be sent directly to the Geneva College Department of Education from the registrar of their college.
2) Persons who have a bachelor's degree and are seeking initial certification in the state of Pennsylvania must furnish an official transcript of all college work to the Geneva College Department of Education, and must meet with a certification officer in the Geneva College Department of Education who will develop a program of prescribed courses, the successful completion of which will lead to teacher certification in the state of Pennsylvania. Course work from other institutions to be used in meeting the requirements for certification in any teaching area must be recent and have received a grade of C or better.
3) Graduates of Geneva College or other colleges who already hold teaching certificates may be certified in an additional area by taking any additional courses needed. Arrangements should be made directly with Geneva's Department of Education. Requirements and processes are the same as the number 2 above. A program of study will be established.

## Placement Service

The education department maintains credential files. A file containing recommendations and evaluations from faculty and employers is maintained and is sent only to prospective employers on request of the graduates.

## Christian School Teaching Minor

Christian schools need certified and highly competent Christian teachers. They cannot accept less because the school is "just a Christian school." Teachers in Christian schools must be knowledgeable about the subject matter they teach and about pedagogical issues and principles they use to help children learn. They need to have a positive Christian world and life view and to be able to provide Biblical and spiritual leadership to their students and to others in their school community. Christian teachers should be competent practitioners, able to make their knowledge and theory work to benefit students. Students need more than "nice" Christian experiences only; they must learn and demonstrate their learning, and their teachers must be skilled in directing and assessing that learning.

The level of competence required by the Pennsylvania Department of Education is a base level, but teachers in Christian schools must also have a foundational understanding of Biblical Christian education beyond the base level, and reflect that understanding in their teaching and in their critique of issues and trends in both secular and Christian education.

This minor is for prospective teachers who believe that a Christian school may be where they belong or who wish to have the background and perspective that the minor will help them develop. The minor is not intended to stand-alone but to be a significant supplement to the elementary or to one of the secondary certification programs. Given the size of the elementary and secondary certification programs at Geneva College, students should plan carefully in taking the Christian school teaching minor. Students interested in this minor should check with their adviser, the chair of the Biblical studies department or the chair of the education department for further details.

| The Christian School Teaching Minor is composed of the following courses: |  |  |
| :--- | :--- | ---: |
| BIB 300 | Foundations of Christian Thought | 3 |
| BIB 325 | Biblical Theology | 3 |
| BIB 350 | History of the Christian Church | 3 |
| EDU 303 | Introduction to Christian Education | 3 |
| MIN 210 | Evangelism |  |
| or MIN 215 | Methods of Teaching the Bible | 3 |

In order to be eligible to declare the Christian education minor, students must complete BIB 112 Biblical Introduction ICreation to Post-Exilic Period; BIB 113 Biblical Introduction II-Intertestament Period through Apostolic Age; and one of the teacher certification programs offered through the department of education.

## Department of Engineering

The college offers two four-year degree programs in engineering:

1) Bachelor of Science in Engineering. This general engineering program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202-4012; telephone: 410-347-7700, www.abet.org. This program is accredited under the general criteria for basic level programs, not under program criteria for specific branches of engineering. Within this program, students may choose to concentrate in civil engineering, computer engineering, electrical engineering, mechanical engineering, or an interdisciplinary field.
2) Bachelor of Science with a major in Chemical Engineering. This program is not ABET-accredited. It is administered by the chemistry department. See page 52.

The college also offers a two-year program leading to the Associate in Engineering degree (AE). All the courses in this program carry full college credit and may be used towards one of the four-year degrees listed above, provided that the courses taken also fit the specific requirements of the four-year program.

## Mission of the Engineering Department

The mission of the engineering department is to educate and minister to a diverse community of students for the purpose of developing engineering professionals who will see their careers as a calling from God in which they may glorify Him and love their neighbors, providing excellent engineering services in an environment of technological change.

## Objectives of the Engineering Department

We recognize that our students and graduates make choices and commitments that we do not control. Nevertheless, we state our objectives on the assumption that our graduates stay in the engineering profession and make the choices and commitments that we encourage.

Graduates of Geneva College's Engineering program will:

1) See their lives from a Biblical viewpoint and their professional careers as a calling from God.
2) Understand and be committed to Biblical ethics and practice engineering according to high standards of integrity.
3) Be able to design effective solutions to engineering problems in accord with applicable standards.
4) Communicate effectively, both orally and in writing.
5) Understand the mathematics and physical phenomena relevant to their fields and how these relate to a Christian worldview.
6) Work effectively in teams, and with experience, assume increasing levels of responsibility.
7) Be familiar with state-of-the-art engineering equipment and methods relevant to their field.
8) Be aware of non-technical viewpoints and the diversity of world cultures.
9) Be engaged in lifelong learning, keep up with the advancing state of the art in their fields, and continue to grow as disciples of Christ.

## Engineering Major - BSE

## General program requirements

Specific requirements for concentrations in civil, computer, electrical, or mechanical, and interdisciplinary engineering are given below.

12 credit hours of mathematics:

| MAT 161 | Calculus I | 4 |
| :--- | :--- | :--- |
| MAT 162 | Calculus II | 4 |
| MAT 405 | Differential Equations | 4 |
|  |  |  |
| 12 credit hours |  |  |
| CHM 111 chemistry and physics: | General College Chemistry | 4 |
| PHY 201 | College Physics I | 4 |
| PHY 202 | College Physics II | 4 |

Six - 14 additional credit hours of mathematics or science electives, to be chosen from course lists provided under the civil, computer, electrical, mechanical, and interdisciplinary engineering concentrations. See below. Credit hours in excess of the requirements may be applied towards the three or four credit hours of free electives.

Three credit hours of computer programming:
CSC 101 Introduction to Programming 3
22 credit hours of engineering:
EGR 101 Introduction to Engineering 2
EGR 102 Computer-Aided Engineering 2
EGR 211 Solid Mechanics 4
EGR 212 Linear Circuit Analysis 3
EGR 213 Systems Engineering 3
EGR 314 Engineering Thermodynamics 3
EGR 401 Christian Ethics and Engineering 1
EGR 481, 482 Senior Design Project 2,2
33-37 additional credit hours of engineering (CIE, CPE, EGR, ELE, MEE)
Credit hours in excess of requirements may be applied towards the three or four credit hours of free electives.

36 credit hours of core requirements not included in the major.
Engineering students need only take nine credit hours of humanities
(HUM) and need not take HUM 304.
Three or four additional credit hours of free electives. 3-4
Summary of required credit hours
97-100 in major requirements, 36 in core requirements not included in major, three or four in electives.

Minimum 135
Students completing the requirements for the BSE degree in four years (eight semesters) will be required to take 18 credit hours in two to four semesters that will incur extra tuition charges for the $18^{\text {th }}$ credit hour (see page 189)

## Plan of Study

By the end of the fall semester of the sophomore year, each student must prepare a plan of study, with the help of his or her adviser, specifying an educational objective. The plan must specify a minimum of 33 credit hours of engineering courses and the mathematics and science electives; the courses must follow from the educational objective. The student may change advisers if this is appropriate for his or her chosen plan of study. The plan defines an area of concentration. See concentration requirements on pages 67- 69.

Transfer students who enter the program at the beginning of the spring semester of the sophomore year or later must prepare a plan of study at the time they enter the program.

Ordinarily, a student should elect one of the following traditional areas of concentration: civil engineering (CIE), computer engineering (CPE), electrical engineering (ELE), or mechanical engineering (MEE); if so, he or she must meet the specific requirements of the area selected. Otherwise, he or she may elect to construct an interdisciplinary plan.

All plans of study must meet or exceed minimum requirements in engineering science and engineering design. See advisers for details.

In consultation with his or her adviser, a student may change his or her plan of study, his or her area of concentration, or his or her adviser at any time, provided that the requirements for the BSE degree, including minimum requirements in engineering science and engineering design, are still met by the altered plan.

A student who does not submit an acceptable plan of study by the end of the fall semester of his or her sophomore year or who does not follow his or her current plan thereafter may be prevented from registering in or attending engineering classes.

## Civil Engineering Concentration - Program requirement 96 credit hours

88 credit hours as defined above: 12 in mathematics, 12 in science, three in computer programming, 22 in general engineering, three in free electives, and 36 in core requirements, plus:

Eight additional credit hours of mathematics and science:

| MAT 261 | Calculus III | 4 |
| :--- | :--- | :--- |
| CHM 221 | Organic Chemistry I | 4 |
|  |  |  |
| 21 credit hours | required in general and civil engineering: | 4 |
| EGR 315 | Transport Processes | 3 |
| CIE 201 | Geomatics Engineering | 3 |
| CIE 231 | Structural Analysis | 4 |
| CIE 407 | Geotechnical Engineering | 3 |
| CIE 451 | Urban Hydrology | 4 |
| MEE 417 | Fluid Mechanics |  |

Six credit hours in civil engineering electives, selected from the following:
EGR 214 Dynamics 3

CIE 301 Transportation Engineering 3
CIE 333 Reinforced Concrete Design 4
CIE 352 Water and Wastewater Treatment 3
CIE 434 Structural Steel Design 3
CIE 453 Solid and Hazardous Waste 3
CIE 454 Air Pollution Control 3
Six additional credit hours in engineering electives-any course listed in CIE, CPE, EGR, ELE, or MEE, including those listed as civil engineering electives.

Six additional credit hours of mathematics and science electives selected from the following:

| MAT 307 | Linear Algebra | 3 |
| :--- | :--- | :--- |
| MAT 309 | Introduction to Abstract Algebra | 2 |
| MAT 310 | Introduction to Real Analysis | 2 |
| MAT 350 | Numerical Methods | 3 |
| MAT 407 | Advanced Topics | 3 |
| MAT 409 | Partial Differential Equations | 3 |
| BIO 101 | Topics in Biology | 3 |
| BIO 111 | Introduction to Environmental Biology | 4 |
| BIO 112 | Introduction to Cellular Biology | 4 |
| BIO 305 | Microbiology | 4 |
| BIO 306 | General Ecology | 4 |


| BIO/CHM 317 | Biochemistry I | 3 |
| :--- | :--- | ---: |
| CHM 222 | Organic Chemistry II | 4 |
| CHM 232 | Quantitative Analytical Chemistry | 4 |
| CHM 290 | Environmental Chemistry | 3 |
| CHM 305 | Advanced Organic Chemistry | 3 |
| CHM 307 | Physical Chemistry I: Thermodynamics | 3 |
| PHY 160 | Introduction to Acoustics | 3 |
| PHY 301 | Classical Mechanics | 3 |
| PHY 306 | Optics | 3 |
| PHY 307 | Thermodynamics | 3 |
| PHY 405, 406 | Methods of Theoretical Physics I, II | 3,3 |
| PHY 408 | Modern Physics | 3 |
| SCS 201 | Astronomy | 3 |

## Computer Engineering Concentration - Program requirement 95-96 credit hours

89 credit hours as defined above: 12 in mathematics, 12 in science, three in computer programming, 22 in general engineering, 4 in free electives, and 36 in core requirements, plus:

Three additional credit hours of computer programming:
CSC 102 Object-Oriented Programming 3
Six additional credit hours of required mathematics and science:
CSC 204 Data Structures and Algorithm Analysis 3
MAT 130 Discrete Mathematics 3

Three or four credit hours of mathematics or science elective selected from the following:

| BIO 101 | Topics in Biology | 3 |
| :--- | :--- | ---: |
| BIO 111 | Introduction to Environmental Biology | 4 |
| BIO 112 | Introduction to Cellular Biology | 4 |
| CHM 221 | Organic Chemistry I | 4 |
| CHM 232 | Quantitative Analytical Chemistry | 4 |
| MAT 105 | Elementary Statistical Methods | 3 |
| MAT 261 | Calculus III | 4 |
| MAT 309 | Introduction to Abstract Algebra | 2 |
| MAT 310 | Introduction to Real Analysis | 2 |
| PHY 160 | Introduction to Acoustics | 3 |
| PHY 306 | Optics | 3 |
| PHY 405, 406 | Methods of Theoretical Physics I, II | 3,3 |
| SCS 201 | Astronomy | 3 |

25 credit hours in general and computer engineering:
CPE 220 Digital Systems 3
CPE 230 Computer Architecture 3
CPE 303 Microprocessor Systems 3
CPE 304 Advanced Digital Logic 3
CPE 306 Software Engineering 3
CPE 333 Operating Systems 3
ELE 213 Linear Systems 3
ELE 309 Electronic Devices and Circuits I 4
Nine credit hours of computer engineering electives, selected from the following:
CPE 450 Networks 3
CPE 452 Computer Security 3
CPE 490 Embedded Systems 3
ELE 440 Digital Signal Processing 3

## Electrical Engineering Concentration - Program requirements 95-96 credit hours

89 credit hours as defined above: 12 in mathematics, 12 in science, three in computer programming, 22 in general engineering, four in free electives, and 36 in core requirements, plus:

Four additional hours of mathematics:
MAT 261 Calculus III 4
26 credit hours in general and electrical engineering:
CPE 220 Digital Systems 3
CPE 303 Microprocessor Systems 3
CPE 304 Advanced Digital Logic 3
CPE 490 Embedded Systems 3
EGR 316 Process Control 3
ELE 213 Linear Systems 3
ELE 305 Electromagnetic Fields and Waves 4
ELE 309 Electronic Devices and Circuits I 4
Seven or eight credit hours of electrical engineering electives, selected from the following:

| ELE 402 | Communications Engineering | 4 |
| :--- | :--- | :--- |
| ELE 410 | Electronic Devices and Circuits II | 4 |
| ELE 440 | Digital Signal Processing | 3 |

Three additional credit hours in electrical engineering electives, selected from the following:
CPE 450 Networks 3

EGR 214 Dynamics 3
EGR 315 Transport Processes 4
ELE 324 Electrical Machines 3
ELE 402 Communications Engineering 4
ELE 410 Electronic Devices and Circuits II 4
ELE 440 Digital Signal Processing 3
MEE 321 Mechanics of Deformable Bodies 3
MEE 324 Kinematics of Mechanisms 3
MEE 403 Mechanical Component Design 3
MEE 405 Finite Element Methods 3
MEE 417 Fluid Mechanics 4
Three credit hours of mathematics elective selected from the following:
MAT 307 Linear Algebra 3
MAT $350 \quad$ Numerical Methods 3
MAT 407 Advanced Topics 3
MAT 409 Partial Differential Equations 3
Three credit hours of physics elective selected from the following:
PHY 306 Optics 3
PHY 408 Modern Physics 3

## Mechanical Engineering Concentration - Program requirements $\mathbf{9 5 - 9 8}$ credit hours

88 credit hours as defined above: 12 in mathematics, 12 in science, three in computer programming, 22 in general engineering, three in free electives, and 36 in core requirements, plus:

Eight additional hours of mathematics and science:
CHM $221 \quad$ Organic Chemistry I 4

MAT 261 Calculus III 4
20 credit hours in general and mechanical engineering:
EGR 214 Dynamics 3
EGR 315 Transport Processes 4
MEE 321 Mechanics of Deformable Bodies 3
$\begin{array}{lll}\text { MEE } 324 & \text { Kinematics of Mechanisms } & 3 \\ \text { MEE } 403 & \text { Mechanical Component Design } & 3\end{array}$
MEE 417 Fluid Mechanics 4
Six or seven credit hours in mechanical engineering electives, selected from the following:
MEE 405 Finite Element Methods 3
MEE 410 Mechanical Vibration 3
MEE 416 Design of Thermal Systems 4
MEE 418 Reacting Systems 3
Six or seven additional credit hours in engineering electives-any course listed in CIE, CPE, EGR, ELE, or MEE, including those listed as mechanical engineering electives.

Three credit hours of mathematics elective selected from the following:
MAT 307 Linear Algebra 3

MAT 350 Numerical Methods 3
MAT 407 Advanced Topics 3
MAT 409 Partial Differential Equations 3
Three or four credit hours of chemistry or physics elective selected from the following:
CHM 232 Quantitative Analytical Chemistry 4
CHM 307 Physical Chemistry I: Thermodynamics 3
PHY 301 Classical Mechanics 3
PHY 306 Optics 3
PHY 307 Thermodynamics 3
PHY 408 Modern Physics 3

## Interdisciplinary Engineering

To select this concentration a student must identify two specific focus areas, and then select courses supporting the themes of the focus areas. The focus areas may support one overall goal. Students selecting this option must obtain the approval of two department chairs, or if the focus areas are both within engineering, the approval of two engineering faculty members.

## Program requirements 88 credit hours

88 credit hours as defined above: 12 in mathematics, 12 in science, three in computer programming, 22 in general engineering, three in free electives, and 36 in core requirements, plus:

24 credit hours of engineering in focus area one:
These courses must be selected from EGR, CIE, CPE, ELE, or MEE, and must constitute a generally recognized track within engineering, for example, environmental engineering, microprocessor design or thermal sciences. The selected courses must lead to senior level competencies in this focus area.

15 credit hours of science, mathematics, or engineering in focus area two:
Course selections must constitute or support a generally recognized or identifiable focus area in science, engineering, or mathematics, for example, bioengineering or engineering physics.

Eight credit hours of mathematics, science, or engineering selected to support or augment one or both focus areas.
All plans must meet or exceed the department's minimum requirements for engineering design. The student should consult with his or her adviser for details.

## Engineering Minor

At least 21 credit hours:
EGR 101 Introduction to Engineering 2
EGR 102 Computer-Aided Engineering 2
EGR 211 Solid Mechanics 4
EGR 212 Linear Circuit Analysis 3
EGR 401 Christian Ethics and Engineering 1
Plus at least nine additional credit hours from CIE, CPE, EGR, ELE, or MEE.

## Associate Degree in Engineering - Program requirements 41 credit hours

8 credit hours of mathematics:

| MAT 161 | Calculus I | 4 |
| :--- | :--- | ---: |
| MAT 162 | Calculus II | 4 |
| Four additional | hours of mathematics, selected from the following: |  |
| MAT 261 | Calculus III |  |
| or MAT 405 | Differential Equations | 4 |
| 12 credit hours of chemistry and physics: |  |  |
| CHM 111 | General College Chemistry |  |
| PHY 201 | College Physics I | 4 |
| PHY 202 | College Physics II | 4 |
|  |  | 4 |
| 14 credit hours |  |  |
| EGR 101 engineering: | Introduction to Engineering |  |
| EGR 102 | Computer-Aided Engineering | 2 |
| EGR 211 | Solid Mechanics | 2 |
| EGR 212 | Linear Circuit Analysis | 4 |
| EGR 213 | Systems Engineering | 3 |
|  |  | 3 |

Three additional credit hours in engineering elective selected from the following:
CIE 231 Structural Analysis 3
CPE 220 Digital Systems 3
EGR 314 Engineering Thermodynamics 3
ELE 213 Linear Systems 3
MEE 321 Mechanics of Deformable Bodies 3

23 credit hours of core requirements:
BIB 112 Bible Introduction I 3
BIB 113 Bible Introduction II 3
COM 101 Principles of Communication 3
ENG 101 English Composition 3
HUM 103 Invitation to the Humanities 3
HUM 203 Beauty, Freedom, and Truth 3
PED 103 Physical Fitness 1
SSC 101 Learning and Transition 1
Social Science Elective 3

## Summary of Required credit hours

41 in major requirements, 23 in core requirements not included in major.
If less than 12 hours of the engineering credit hours are taken at Geneva, the student must also satisfy a general competency test administered by the engineering department chairperson.

## Department of English

Our vision
In the beginning the Word was with God
And God spoke the worlds into being.
Then and now those worlds sing their words back to God;
God hears, enjoys, and joins the singing.
The Word gives breath and can take breath away;
The Word informs and imagines.
The Word that condemns can take death away;
The Word sustains and envisions.
Now some words are broken, and wordsmiths die,
And some names are said all in vain.
We sing some songs as sad as a sigh,
But the Word still speaks and His words sustain.
Christ calls a name and He images the same;
He figures, patterns, and designs.
We read, we write, we watch, and we wait,
And our words with the Word He aligns.
This vision leads to some ideals that we would like to sow and cultivate in our students with the hope that sooner or later these qualities will mature in students' lives.

Through the experience of literature and the related arts, through the clear and creative use of language, and through understanding language itself, our students, especially our departmental majors, should come to:

- Connect their words and their reading with the Word.
- Experience, express, and testify to the wonder of the glory of God, His work, and the work of His creatures.
- Comprehend and lament the brokenness of this fallen world.
- Seek wisdom in humility.
- Honor God in the use of language and in responding to others' use of language.

The mission of the English department of Geneva College is to serve the student body by offering college level writing courses as part of the core curriculum and by offering upper level writing, English language, and literature courses to English majors and future teachers. We aim to prepare students to be competent writers, to be innovative critical thinkers, and to gain general knowledge about literary history both in the West and globally. As we help students pursue excellence in writing, language, and literature, we do so believing that human beings are image bearers of God and as such are creative beings. Moreover, we teach, pursue scholarship, and write out of a commitment to the power of language as expressed and reflected in the Word of God; we encourage students to do the same.

A major in English is excellent preparation for professions such as law, teaching, business, and other ministry-related vocations, including those requiring graduate work. The department offers a major in English, with concentrations in either English education or literature, and a major in writing.

The department also offers minors in English, teaching English as a second language, creative writing, and informational writing. Minors should be chosen by the beginning of the junior year.

The English department works with the student publications board in sponsoring student publications in newspaper and literary magazine. The department operates a writing center open to students desiring tutoring assistance in developing their writing skills. The English department also works with the department of languages and culture in its work with English as a second language.

## English Major - Concentration in Literature - BA - Program requirements 51 credit hours

A student majoring in English with a concentration in literature must complete 51 credit hours in major courses. In electing courses outside this major, students should consider developing a minor that has specific pre-professional orientation and also choosing courses in American and English history.

## Core English Requirements ( 51 credits):

| ENG 112 | Critical Approaches to Literature | 3 |
| :--- | :--- | :--- |
| ENG 113 | Researched Writing | 3 |
| ENG 205 | Advanced Composition | 3 |
| or ENG 232 | Introduction to Rhetoric | 3 |
| ENG 254 | The Novel | 3 |
| or ENG 255 | Survey of Dramatic Literature | 3 |
| ENG 271 | British Literature to the Restoration | 3 |
| ENG 272 | British Literature from Restoration to Victorian | 3 |
| ENG 273 | British Literature Victorian to Present | 3 |
| ENG 281 | American Literature to Civil War | 3 |
| ENG 282 | American Literature from Civil War to Present | 3 |
| ENG 291 | Masterpieces of World Literature | 3 |
| ENG 305 | Special Topics in World Literature | 3 |
| ENG 328 | History of the English Language | 3 |
| or LIN 219 | Introduction to Linguistics | 3 |
| ENG 351 | Shakespeare |  |
| ENG 489 | Majors Seminar |  |
|  |  |  |

Six credit hours from advanced study courses:
(repeatable with different topic)

| ENG 374 | Special Topics in British Literature | 3 |
| :--- | :--- | :--- |
| ENG 384 | Special Topics in American Literature | 3 |

Three credit hours from electives: 3
(also cross-listed as HUM 304)
ENG 212 Cinema
ENG 266 Biblical Literature
ENG 268 Faith and Literature
ENG 335 Literature of Minorities
ENG 336 Studies in Women's Literature

## Concentration in English Education - BA - Program requirements 87 credit hours

This program involves a relatively balanced study of language, literature, and writing. Students concentrating in English education must take 45 credit hours English core requirements, 8 credit hours English methods requirements in their major program and 34 credit hours of pre-professional courses outside the English department. They are exempted from one of the non-laboratory courses in the natural sciences. See page 61 for a full description of the requirements in the program leading to certification to teach on the secondary level.

| Core English | Requirements (45 credits) |  |
| :--- | :--- | :--- |
| ENG 112 | Critical Approaches to Literature | 3 |
| ENG 113 | Researched Writing | 3 |
| ENG 205 | Advanced Composition | 3 |
| ENG 254 | The Novel | 3 |
| or ENG 255 | Survey of Dramatic Literature | 3 |
| ENG 271 | British Literature to the Restoration | 3 |
| ENG 272 | British Literature from Restoration to Victorian | 3 |
| ENG 273 | British Literature Victorian to Present | 3 |
| ENG 281 | American Literature to Civil War | 3 |
| ENG 282 | American Literature from Civil War to Present | 3 |
| ENG 291 | Masterpieces of World Literature | 3 |
| ENG 305 | Special Topics in World Literature | 3 |
| ENG 328 | History of the English Language |  |

Three credit hours from advanced study courses:

| ENG 374 | Special Topics in British Literature |
| :--- | :--- |
| ENG 384 | Special Topics in American Literature |
| ENG 489 | Majors Seminar |


| Three credit hours from electives; |  |
| :--- | :--- |
| (also cross-listed as HUM 304) |  |
| ENG 212 | Cinema |
| ENG 266 | Biblical Literature |
| ENG 268 | Faith and Literature |
| ENG 335 | Literature of Minorities |
| ENG 336 | Studies in Women's Literature |

## English Methods Requirements (8 credits)

| ENG 221 | Newspaper | 1 |
| :---: | :--- | :--- |
| ENG 223 | Literary Magazine | 1 |
| ENG 320 | Tutoring Writing | 2 |
| ENG 405 | Teaching of English - Secondary | 3 |
| plus EDU 414 | Advanced Secondary Field Experience | 1 |

Pre-Professional Courses ( 34 credits)

| EDU 202 | Social and Philosophical Foundations of Modern Education | 3 |
| :--- | :--- | :--- |
| EDU 211 | Educational Psychology |  |
| or PSY 211 | Educational Psychology | 3 |
| EDU 217 | Initial Field Experience - Secondary | 1 |
| EDU 375 | Exceptionality in the Secondary School | 3 |
| EDU 413 | Content Literacy in the Secondary Classroom | 3 |
| EDU 420 | Educational Assessment | 3 |
| EDU 432 | Student Teaching Performance - Secondary | 4 |
| EDU 433 | Student Teaching Portfolio | 4 |
| EDU 434 | Student Teaching Seminar | 4 |
| MAT 101 | College Algebra (or equivalent) | 3 |
| MAT 105 | Elementary Statistical Methods (or equivalent) | 3 |

Teaching majors should plan to do their student teaching during the spring semester of their senior year, except under special circumstances.

Successful completion of the English major with a concentration in English education with a 3.0 grade point average or better, together with passing the pre-professional and content area examinations mandated by the Commonwealth of Pennsylvania, will result in being certified to teach English on the secondary level. Most states honor Pennsylvania's certification. Geneva College is not responsible for students who will not be certified because of failure to meet certification requirements at the time of graduation.

## Writing Major • BA - Program requirements 52 credit hours

A student majoring in writing must complete 52 credit hours in major courses. The writing major is designed to develop general writing skills while still giving the student the option of emphasizing creative or informational writing. The writing major is not a journalism major.

| Core English | Requirements (52 credit hours): |  |
| :--- | :--- | :--- |
| ENG 112 | Critical Approaches to Literature | 3 |
| ENG 113 | Researched Writing | 3 |
| ENG 205 | Advanced Composition | 3 |
| ENG 221 | Newspaper |  |
| or ENG 223 | Literary Magazine | 1 |
| ENG 232 | Introduction to Rhetoric | 3 |
| ENG 242 | Editing | 3 |


| Any literature course Literature Option |  | 3 |
| :---: | :---: | :---: |
| ENG 328 | History of the English Language |  |
| or LIN 219 | Introduction to Linguistics | 3 |
| ENG 344 | Publishing | 3 |
| ENG 351 | Shakespeare | 3 |
| ENG 489 | Majors Seminar | 3 |
| ENG 493 | Writing Internship |  |
| or ENG 495 | Independent Study | 3 |
| Options: 18 credit hours from among |  |  |
| Informational Emphasis: |  |  |
| ENG 111 | Topics in Contemporary Writing | 3 |
| ENG 191 | Argumentative Writing | 3 |
| ENG 212 | Cinema | 3 |
| ENG 221 | Newspaper | 1 |
| ENG 241 | Newswriting | 3 |
| ENG 343 | Feature Writing | 3 |
| ENG 394 | Special Topics in Writing | 3 |
| ENG 493 | Internship | 3 |
| ENG 495 | Independent Study | 3 |
| Creative Emphasis: |  |  |
| ENG 111 | Topics in Contemporary Writing | 3 |
| ENG 215 | Creative Writing: Fiction | 3 |
| ENG 216 | Creative Writing: Poetry | 3 |
| ENG 223 | Literary Magazine | 1 |
| ENG 343 | Feature Writing | 3 |
| ENG 394 | Special Topics in Writing | 3 |
| ENG 495 | Independent Study | 3 |
| Language: |  |  |
| LIN 219 | Introduction to Linguistics | 3 |
| LIN 220 | Applied Linguistics | 3 |
| LIN 384 | Special Topics in Linguistics | 3 |

Ordinarily students will take no more than six credit hours of writing options outside of their area of emphasis. ENG 111, ENG 394, ENG 493, and ENG 495 are repeatable courses, as long as the same experience is not repeated. A single internship or independent study cannot count as fulfilling both a program and an option requirement.

In their junior year, majors should discuss with their advisers their preferences in pursuing ENG 493 or ENG 495. If they have special interests and contacts for a summer internship, they should also discuss such possibilities well ahead of time.

## English Minor

An English minor is intended for students who wish to add a literature centered liberal arts concentration to a major outside the English department.

A student can complete an English minor by taking 18 credit hours of English courses with the following constraints:

| Required: |  |  |
| :--- | :--- | :--- |
| ENG 112 | Critical Approaches to Literature |  |
| Take one but not more than two of the following courses: |  |  |
| ENG 111 | Topics in Contemporary Writing | 3 |
| ENG 113 | Researched Writing | 3 |
| ENG 191 | Argumentative Writing | 3 |
| ENG 205 | Advanced Composition | 3 |
| ENG 215 | Creative Writing: Fiction | 3 |
| ENG 216 | Creative Writing: Poetry | 3 |
| ENG 241 | Newswriting | 3 |
| ENG 242 | Editing | 3 |

The following courses may not be used to complete an English minor:

| ENG 095 | English Proficiency |
| :--- | :--- |
| ENG 101 | English Composition |
| ENG 110 | Proficiency in English as a Second Language |
| ENG 405 | Teaching of English-Secondary |
| ENG 413 | Teaching of English as a Second Language |

## Minor in Creative Writing

Students who wish to increase their resources for and develop skill in creative writing can build a minor in creative writing.

Eighteen credit hours are required to complete the minor. Students minoring in creative writing must take these courses:

| ENG 112 | Critical Approaches to Literature | 3 |
| :---: | :--- | :---: |
| ENG 205 | Advanced Composition | 3 |
| ENG 215 | Creative Writing: Fiction |  |
| or ENG 216 | Creative Writing: Poetry | 3 |

The remaining nine credit hours can be elected from the following courses:
ENG 111 Topics in Contemporary Writing 3

ENG 223 Literary Magazine 1
ENG 343 Feature Writing 3
ENG 344 Publishing 3
ENG 394 Special Topics in Writing 3
ENG 495 Independent Study 3

Students majoring in English can add a minor in creative writing only by following the above program without duplicating more than three credit hours from their major. Students majoring in writing cannot elect this minor.

## Minor in Informational Writing

Students who wish to add a concentration in writing useful in supporting their work in a professional field should consider minoring in informational writing.

```
Nineteen credit hours are required to complete the minor in informational writing.
Required for the minor are:
\(\begin{array}{ll}\text { ENG 102 } & \text { Academic Writing and Research Process } \\ \text { or ENG } 113 & \text { Researched Writing }\end{array}\)
ENG 205 Advanced Composition 3
ENG 242 Editing 3
ENG 221 Newspaper 1
```

The remaining nine credit hours can be elected from the following courses:

| ENG 111 | Topics in Contemporary Writing | 3 |
| :--- | :--- | :--- |
| ENG 191 | Argumentative Writing | 3 |
| ENG 241 | Newswriting | 3 |
| ENG 311 | Technical Writing | 3 |
| ENG 343 | Feature Writing | 3 |
| ENG 344 | Publishing | 3 |
| ENG 394 | Special Topics in Writing | 3 |
| ENG 493 | Writing Internship | 3 |
| ENG 495 | Independent Study | 3 |

A student majoring in English can add a minor in informational writing only by following the above program without duplicating more than three credit hours. Students majoring in writing cannot elect this minor.

## Minor in Teaching of English as a Second Language

This minor (usually referred to as a TESL minor) is available for students who want to develop the special skills for teaching English to persons for whom English is not their first language. Twenty-one credit hours are needed to complete the following program:
ENG 328 History of the English Language ..... 3
ENG 382 English Grammars ..... 3
ENG 413 Teaching English as Second Language ..... 3
LIN 219 Introduction to Linguistics ..... 3
CDS 220 Language Development ..... 3One of the following three courses:
MIN 201 Cultural Anthropology ..... 3
LIN 220 Applied Linguistics ..... 3
COM 225 Intercultural Communication ..... 3
One elective in English:

## Department of History, Political Science, and Sociology

The Department of History, Political Science, and Sociology seeks to give all students an understanding of human society, its history, and its present condition from a Christian perspective, and it seeks to develop in students an awareness of their appropriate role in that society. The department offers majors in history, political science, and sociology for students who wish to concentrate in those fields and selected minors in related professional fields.

Courses offered by the department contribute to preparation for graduate study and for careers in research, law, business, government service, the ministry, library work, journalism, editing, public or applied history, and education, among others.

Students who wish to gain certification to teach social studies should be aware that the combination of college core courses, secondary education requirements, the major requirements, and related social studies courses adds up to more than 135 credit hours. This requires careful scheduling and coordination with both the adviser and the education department. It may be difficult or impossible to fit these requirements into eight semesters. Students also must achieve a 3.0 GPA and pass the pre-professional skills test before being admitted to candidacy to the professional education program. Geneva College is not responsible for students who will not be certified because of failure to meet certification requirements at the time of graduation.

The department provides leadership in the development of a pre-law studies minor which involves courses in various disciplines, and which serves to introduce students to the basic tenets of the legal profession. See page 91.

## History Major - BA - Program requirements 40 credit hours

The history major seeks to help students understand and evaluate the past through the collection, organization, and interpretation of evidence (historical research and writing), taking into consideration the dynamics of historical events, cause-and-effect relationships, and the interpretation of historical periods and civilizations. In other words, the program is designed to encourage students to develop an historical imagination for the "how's and why's" of history as much as the "what's, when's, and where's," and to articulate their findings. It particularly seeks to help students approach the past through a distinctly Christian worldview: an attempt to responsibly and honestly address and interpret the complexities of history in the spirit of Biblical faithfulness. The major is intended to complement the core curriculum and to encourage students to gain a liberal arts background as the basis for future development and contributions to the Christian community and society.

HIS 220 Europe I: Ancient through Medieval 3
HIS 221 Europe II: 1500 - 1815 3
HIS 222 Europe III: 1815 - Present 3
United States Sequence ( 9 credit hours):
HIS 250 US I: Colonial 3
HIS 251 US II: $19^{\text {th }}$ Century 3
HIS 252 US III: $20^{\text {th }}$ Century 3

| Non-Western Courses (6 credit hours): |  |  |
| :---: | :---: | :---: |
| HIS 260 | Latin America | 3 |
| HIS 270 | Middle East | 3 |
| HIS 280 | Modern Africa | 3 |
| HIS 290 | Modern Asia | 3 |
| Six credit hours of 300 Level courses |  |  |
| Three credit hours of HIS 401 Selected Themes in History 3 |  |  |
| HIS 421 | Senior Seminar (open only to senior history majors) | 3 |
| HIS 422 | History and Theory (open only to senior history majors) | 1 |

## History Minor

18 credit hours of history courses.

## Political Science Major • BA - Program requirements 40 credit hours

The political science major seeks to help students understand and assess the discipline of political science, theories of politics, political systems and governmental structures, and the tools used in social science research. In addition, the political science major encourages students to develop their reasoning, analytic, and communication skills, and to apply what they are learning to contemporary political issues. The political science major particularly seeks to help students apply Biblical perspectives to the study, practice, and transformation of politics. In conjunction with the core curriculum, the political science major provides students with a broad liberal arts background while training them in the discipline, and equipping them for service in fields including government, law, politics, teaching, policy analysis, and private sector management.

Major Core Courses (22 credit hours):

| POL 151 | American Government <br> (Political Science majors may not use this course <br> to fulfill the Social Science core requirement.) | 3 |
| :--- | :--- | :--- |
| POL 203 | International Relations | 3 |
| POL 211 | Comparative Politics | 3 |
| POL 352 | Great Issues in Politics | 3 |
| POL 421 | Senior Seminar | 3 |
| SSC 348 | Methods of Social Science Research | 3 |
| SSC 349 | Social Science Statistics | 4 |

Major Area Courses ( 9 credit hours with at least 3 credit hours in each of the following areas):

American Government (at least 3 credit hours)
POL 253 Parties, Elections, and Interest Groups 3
POL 254 State and Local Government 3
POL 255 Congress and the Presidency 4
POL 360 Public Administration 3
POL 361 American Public Policy 3
$\begin{array}{lcl}\text { Comparative/International Government (at least } 3 \text { credit hours) } \\ \text { POL } 331 & \text { Foreign and National Security Policy }\end{array}$
POL 332 Topics in Comparative Politics 3
POL 341 Politics of Global Economics 3
POL 342 Topics in International Relations 3
Political Ideas (at least 3 credit hours)
POL 305 Constitutional Law

| POL 309 | Topics in Modern Political Thought | 3 |
| :---: | :---: | :---: |
| POL 312 | History of Political Thought | 3 |
| POL 313 | Democratic Political Thought | 3 |
| Nine credit hours in Political Science |  | 9 |
| cal Science Minor |  |  |
| 18 credit hours |  |  |
| POL 151 | American Government | 3 |
| POL 203 | International Relations |  |
| or POL 211 | Comparative Politics | 3 |
| POL 352 | Great Issues in Politics | 3 |

## Political Science Minor

Plus three other courses selected from any POL course or SSC 348
Students are strongly advised to include SSC 348 Methods in Social Science Research in the minor.

## Sociology Major • BA - Program requirements 42-43 credit hours

The sociology major is designed to give students a foundation in social theory that is demonstrated in everyday social life. While the program is theory based, students are regularly in the community seeing the implications of theory in neighborhood design, marginalized groups, and the functioning of institutions. This kind of preparation depends on interdisciplinary study and is rooted in a Biblical view of social life.

1) Foundational courses-(11 credit hours) each student must take the following courses:

SOC 201 Sociological Imagination 3
SOC 220 Social Change 3
SOC 221 Social Groups and Institutions 3
SOC 225 Sociological Investigation 3
2) Interdisciplinary focus areas-(19 credit hours) each student must take these four framing courses:

SOC 251 American Culture Studies 3
SOC 254 Seeking Reconciliation: Gender, Class, and Race 3
SOC 257 Work, Vocation, and Leadership 3

In addition, each student will develop a three-course concentration (nine credit hours) related to one of the framing courses. The concentration is made up of courses selected from other majors or elective courses in the program. This nine credit hour concentration must be approved by the student's adviser.
3) Advanced analysis and application-(12 to 13 credit hours) students must take these three courses:

SOC 320 Theory and Method 3
SOC 360 Readings in Social Theory 3
SOC 401 Utopia and Shalom 3
Plus 1 of the following:
SOC 493 Sociology Internship 3
SSC 349 Social Science Statistics 4

## Sociology Minor

A student must complete 18 credit hours in sociology for a minor. Of those classes, two must be from foundational courses, two from interdisciplinary framing courses and at least one from advanced analysis and application.

## Criminal Justice Minor

The interdisciplinary minor in Crime, Law, and Society is intended to help students develop the knowledge and background necessary to understand the origins of criminal behavior, the consequences of crime for society, and how societies seek to respond to crime. The minor is not intended to provide students with technical skills used in law enforcement. Rather, the minor seeks to help students probe the deeper questions of how we determine what behaviors should be criminalized, what caused those behaviors, and how societies respond to those behaviors. It also seeks to help the student evaluate criminal justice systems from a Christian perspective. This minor should be a good complement to majors in a variety of fields,
especially those in the social sciences. It should also enhance the student's employment opportunities in the field of criminal justice.

18 credit hours

| SSC 210 | Crime, Law, and Society | 3 |
| :--- | :--- | :--- |
| SOC 242 | Criminology | 3 |
| SSC 310 | Criminal Justice | 3 |

Three courses from the following list:
No more than two of these may be in the same department and no course from this list may be used in both this minor and the student's first major.
POL 305 Constitutional Law 3

POL 332 Topics in Comparative Politics 3
or POL 342 Topics in International Relations 3
POL 360 Public Administration 3
HSV 202 Human Diversity 3
PSY 313 Abnormal Psychology 3
PSY 408 Social Psychology 3
SOC 310 Deviance and Marginalization 3
SSC 493 Internship in Criminal Justice 3

## Department of Languages and Cultures

Language, a God-given means of conversing with our Creator and our fellow creatures, provides essential communicative skills for understanding, appreciating, and working with millions of people who speak languages other than English in the United States and outside of our borders. Foreign languages erect bridges leading to successful business and international/national relationships, enabling those who speak them to be a more integral, active component of our present day international society. Acquaintance with one or more languages besides our own helps us value and share the varieties of wisdom, vision and experience that God has distributed among us, and provides us with a valuable tool for serving Him in His earthly Kingdom.

The Spanish minor helps prepare for careers in business, government, missions, science, social service, and teaching. The emphasis of the program is on communication skills, and the demand for these skills in areas such as education, international banking, multinational commerce, government translation, criminology, and missions makes a Spanish minor in conjunction with any of the college's other majors an attractive combination of study.

All students taking Spanish should consider participating in the Council for Christian Colleges \& Universities' (CCCU) semester study in Costa Rica (Latin American Studies program), or Geneva College's endorsed program in Seville, Spain (Semester in Spain).

The Spanish major is currently inactive, so no new students are being accepted at this time. However, several students opt to plan an independent major alongside any major at Geneva except Secondary Education, by completing the 18 credits in the Spanish minor at Geneva and at least 16 Spanish credits in an approved semester study abroad.

The beginning Spanish courses are also offered, SPA 101 and 102, but they do not count toward the 18 -credit minor.

## Spanish Minor

Students wishing to obtain a Spanish minor must take the following courses for a total of 18 credit hours:
SPA 201 Intermediate Spanish I 3

SPA 202 Intermediate Spanish II 3
SPA 319 Advanced Spanish Conversation 3
SPA 320 Advanced Spanish Composition 3
SPA 321 Advanced Spanish Grammar 3
SPA 315 Culture and Civilization of Spanish America 3

## Department of Music

The Department of Music offers instruction in voice and a variety of instruments, and provides opportunities for solo and group performance, both for students majoring in music and for students from the college at large.

The fundamental purpose of the department of music at Geneva College is to prepare graduates who are able to critique musical life from a Christian perspective and transform it into a Biblical pattern. Such graduates include those who will be listeners and amateur performers of music as well as those who will be professional musicians. To achieve their purpose, we believe music graduates must develop skills in five major areas. Curricular offerings of the department focus on these areas.

1) A broad appreciation of the humanities, sciences, and other arts, in order to understand the significance of music to individuals and societies. The college's core is supplemented by ensembles and elective courses open to all students.
2) Detailed comprehension of the logic and context of music. Courses in music theory (MUS 108, MUS 109, MUS 208, MUS 209) and aural skills (MUS 128, MUS 129, MUS 228, MUS 229) provide understanding of musicianship, writing and composition, and analysis. Those in music history (MUS 210, MUS 310, MUS 311, MUS 370) examine music's social context, critical writing, and style. Introduction to Acoustics (PHY 160) studies the creational framework within which music operates. Independent and directed study (MUS 491, MUS 495) offer additional insights.
3) Competence in the individual and group performance of music. "Making music" involves both private and class lessons in voice, piano, percussion, and a variety of brass, reed, and string instruments; choral groups such as Genevans and Madrigal Singers; and such instrumental groups as Symphonic band, Marching band, Jazz band, and instrumental ensemble.
4) The development of salable professional skills in music. Each student majoring in music chooses one of four tracks.
a. Music education BS, preparation to teach vocal and instrumental music in elementary and secondary schools. This program is accredited by the Pennsylvania Department of Education and, through interstate agreements; certification is readily achieved in many other states as well. See page 59.
b. Music business BA, preparation to work in music wholesaling and retailing, personal and concert management, etc.
c. Music general BA, for the generalist. This program is not career specific; it may include preparation for graduate study either in music or in some related field. This is a flexible program and is essentially liberal arts rather than career specific.
d. Music performance BA, preparation for private music teaching or for graduate study in performance. Students must complete two semesters in one of the majors above before acceptance can be granted in performance.
5) The opportunity to articulate and demonstrate a comprehensive philosophy of music, embodied in all courses, and in performances.

## Auditions

Students who wish to major in music must meet the normal conditions for admission to the college listed on page 183. In addition, they must be accepted by the music department, based on their qualifications to pursue study in this field. The acceptance process will include an audition, interview with the faculty, and diagnostic evaluation (testing), as appropriate for the particular major intended. Students who wish to be considered for a music scholarship must audition by the end of February of their senior year.

## Individual Instruction

Any student may receive college credit for private studio lessons in voice, piano, organ, strings, woodwinds, brass, guitar, and percussion. Fees are described on page 189. These lessons constitute the applied music requirement for music majors. All music majors taking applied music for credit must appear before a board (see page 82 for definition of terms) at the end of each semester.

## Musical Organizations

Regardless of major, students may earn college credit for participation in MUS 212 Marching Band, MUS 213 Symphonic Band, MUS 214 Instrumental Ensembles, MUS 214 Jazz Band, MUS 215 Genevans, MUS 216 Vocal Ensemble, and MUS 218 Handbell Ensemble. A maximum of eight of these credit hours can be used to meet minimum graduation requirements.

All music majors are required to participate in at least one ensemble every semester, and to complete a total of ten credit hours in ensembles. Eight of these must be in large ensembles (MUS 212, MUS 213, or MUS 215) and two in small ensembles (MUS 214, MUS 216, MUS 218). Music minors are required to complete four credit hours in ensembles.

## Piano Proficiency

All music majors are required to pass a proficiency examination in piano by the end of their sophomore year. See second year review, page 82. General music, music business, and music performance (non-keyboard) majors are required to pass level I proficiency. Music education and music performance (keyboard) majors are required to pass at level II.

1) Every music major must be continuously enrolled in piano until the piano proficiency examination is passed.
2) Preparation for the piano proficiency exam should not be made through private lessons.
3) a. The level I exam can be completed by passing MUA 107 the second in the class piano sequence, with a grade of " $B$ " or better. The student need not appear before the entire faculty board.
b. Students who enter the department with some piano skills may elect to test out of MUA 107 by passing a version of the level I proficiency.
c. Preparation for a level II exam should be made by completing all four semesters of the class piano sequence (MUA 106, MUA107, MUA 206, MUA 207).
4) The following guidelines apply to the class piano and keyboard harmony sequence:
a. If a student receives an A or B for the semester, he or she may go on to the next course. If the grade is B , the class syllabus must be completed before beginning the next.
b. If the student receives $\mathrm{C}, \mathrm{D}$, or F , the course must be repeated.
5) Details more specific than the lists above are available from the piano instructors and should be followed in preparing for the examination.
6) Failure to pass the examination by the end of the sophomore year puts doubt on the student's ability to complete the degree successfully and to succeed in a musical career. Students who do not pass by that time will be placed on probation for one semester.

## Voice Proficiency

Students majoring in music education must pass a voice proficiency examination by the end of their junior year.

## Recitals and Attendance

The BS in music education and the BA in music performance require the presentation of a senior recital. Students in those programs should check with their adviser upon registration to learn the specific requirements.

All music majors and minors are required to attend recitals and concerts on campus. Such attendance is essential to musical and personal growth, and is an important part of one's musical education.

## Second Year Review

During the spring semester of the sophomore year as a music major, or after the completion of 43 credit hours of college work, the student will be evaluated by the faculty of the music department on the basis of progress in five areas: academic studies (music literature, theory, and aural skills; business and accounting courses for music business majors), piano skills (completion of piano proficiency), performance skills (ensemble as well as private and class lessons), interpersonal skills, and vocal skills (music education majors). On the basis of this evaluation, the student may be advised to continue or to consider a different major. Results of the evaluation will be discussed in a conference with the student's academic adviser.

## Definitions of Terms

Music Performance Major: a student approved by the music faculty to receive his or her degree in music performance.

Board: a committee, consisting of members of the music faculty, that sits at the end of each semester to hear and evaluate the progress of all music majors taking private lessons.

Concentration: the primary applied music study of students majoring in music education, music business, or music (general).

Ensemble: a performing group sponsored by the music department, and conducted or coached by a member of the music faculty: MUS 212, MUS 213, MUS 214, MUS 215, MUS 216, and MUS 218.

## Music Education Major • BS - Program requirements 92-99 credit hours

Sixteen credit hours in music theory and aural skills (MUS 108, MUS 109, MUS 128, MUS 129, MUS 208, MUS 209, MUS 228, MUS 229)

Eleven credit hours in music history and literature (MUS 210, MUS 310, MUS 311, MUS 370)
Five credit hours in conducting (MUS 231, MUS 232, MUS 333)
Five credit hours in school music methods (MUS 350, MUS 351)
Six credit hours in class lessons (MUA 153, MUA 154, MUA 155, MUA 156, MUA 157, MUA 193) others by elective (MUA 254, MUA 255, or MUA 257)

Ten credit hours in ensembles (eight in large ensembles, MUS 212, MUS 213, MUS 215; two in small ensembles, MUS 214, MUS 216, MUS 218)

Three credit hours in Introduction to Acoustics (PHY 160)
Fifteen credit hours in studio lessons in the instrument of concentration
One hour in senior recital
Piano proficiency, Level II (normally two to four credit hours)
Total: 69-73 credit hours in music; three in acoustics; 20-24 credit hours in Professional education and 43 in core requirements not included in the major. Total credit hours: 135-139.

Additional proficiency and program requirements:
Passing piano proficiency examination (level II) by the end of the sophomore year, and a voice proficiency test by end of junior year. Prerequisite for student teaching.

- Participation in at least one ensemble each semester.
- Performance in one or more student recitals, and before the board, each semester.
- Prescribed attendance at recitals and concerts on campus.
- Senior recital: presentation during senior year, of a solo half-recital (30 minutes) of works approved by the music faculty.
- Organ majors must study piano at least one year or pass a diagnostic test in piano and receive special recommendation of the organ instructor.

Suggestions: Students entering with any academic deficiencies as defined on page 184 will need additional time. For most majors at least one summer session is recommended to complete the degree within four years.

## Music Performance Major • BA - Program requirements 72-76 credit hours

Purpose: preparation for private music teaching or for graduate study in performance.
Students wishing to declare this major must apply in writing to the music faculty for permission, after completing two semesters of full-time study in the Geneva College Department of Music in another music major.

Sixteen credit hours in music theory and aural skills (MUS 108, MUS 109, MUS 128, MUS 129, MUS 208, MUS 209, MUS 228, MUS 229)

Eight credit hours in music history and literature (MUS 210, MUS 310, MUS 311)

Two credit hours in conducting (MUS 231, MUS 232)
Three credit hours in instrumentation (either MUS 351 or MUS 491 Orchestration)
Ten credit hours in ensembles (eight in large assembles, MUS 212, MUS 213, MUS 215; two in small ensembles MUS 214, MUS 216, MUS 218)

Two credit hours in class instruments other than piano and the major instrument (MUA153, MUA 154, MUA 155, MUA 156, MUA 157, MUA 193, MUA 254, MUA 255, MUA 257)

Three credit hours in Introduction to Acoustics (PHY 160)
Four credit hours in literature and pedagogy of the major instrument (MUS 320, MUS 420)
Nineteen credit hours in lessons in the major instrument
One hour in senior recital
Piano proficiency (normally, zero to four credit hours): level II for keyboard majors, level I for all others
Keyboard majors: four credit hours in accompanying (MUA 220)
Voice majors: four credit hours in language diction courses (MUS 120, MUS 121)
Other instrument majors: four credit hours in chamber ensembles (MUS 214 or equivalent)
TOTAL: 69-73 credit hours in music, three in acoustics.
Additional performance and proficiency requirements:

- Passing piano proficiency (as above)
- Participation in at least one ensemble each semester.
- Performance in at least one student recital per semester and before the board each semester.
- Prescribed attendance at recitals and concerts.
- Presentation, during senior year, of a one-hour solo recital of works approved by the music faculty.


## Music Business Major • BA - Program requirements 89-96 credit hours

Purpose: preparation to work in music wholesaling and retailing, personal and concert management, etc.
Sixteen credit hours in music theory and aural skills (MUS 108, MUS 109, MUS 128, MUS 129, MUS 208, MUS 209, MUS 228, MUS 229)

Eight credit hours in music history and literature (MUS 210, MUS 310, MUS 311)
Ten credit hours in ensembles (eight in large ensembles, MUS 212, MUS 213, MUS 215; two in small ensembles, MUS 214, MUS 216, MUS 218)

Three credit hours in Introduction to Acoustics (PHY 160)

Eight credit hours in applied music lessons (two of which may be class lessons)
Piano proficiency, level I (normally one to four credit hours)
Eighteen credit hours of business (BUS 140, BUS 310, BUS 311, BUS 320, BUS 330, BUS 417)
Six to nine credit hours of accounting (ACC 151; either ACC 152 or ACC 256)
Six credit hours of economics (ECO 211, ECO 212)

Two credit hours of public relations (COM 180)
Twelve credit hours in music business (MUS 201, MUS 301, MUS 493, MUS 495)
Total: 42-46 in music, three in acoustics, 30-33 in BUS/ACC/ECO; two in public relations, 12 in music business, and 40 in core requirements not included in the major. Total credit hours 129-136.

There are additional proficiency and program requirements:

- Passing piano proficiency level I. MUS 106, MUS 107 are provided to help students meet this goal.
- Passing two credit hours in class lessons in instruments (MUA 153, MUA 154, MUA 155, MUA 156, MUA 157, MUA 193, MUA 254, MUA 255, MUA 257), which may be counted toward the applied music requirement.
- Passing participation in at least one ensemble each semester (as explained above).
- Passing performance in at least one student recital per semester, and before the board each semester, while studying privately.
- Passing prescribed attendance at recitals and concerts on campus.


## Music Major • BA - Program requirements 59-63 credit hours

Purpose: This liberal art major is not career-specific; it is for the generalist. With the addition of further options, it is suitable as preparation for graduate study.

Eight credit hours in music theory and aural skills (MUS 108, MUS 109, MUS 128, MUS 129)
Two credit hours in music literature (MUS 210)
Ten credit hours in ensembles (eight in large ensembles, MUS 212, MUS 213, MUS 215; two in small ensembles, MUS 214, MUS 216, MUS 218)

Three credit hours in Introduction to Acoustics (PHY 160)
Eight credit hours in applied music lessons (two of which may be class lessons)
Ten additional credit hours in music

Piano proficiency level I (normally two credit hours)
An approved minor (such as business or theatre) or a second major.
Total: 38-42 credit hours in music; three in acoustics; 18 or more in a minor.
Additional performance and proficiency requirements:

- Passing piano proficiency examination at level I.
- Performance in at least one student recital per semester and appearance before the board each semester.
- Prescribed attendance at recitals and concerts on campus.

Program options or tracks:
MUS 201 Survey of the Music Industry 3
MUS 208 Music Theory III 2
MUS 209 Music Theory IV 2
MUS 228 Aural Skills III 2
MUS 229 Aural Skills IV 2
MUS $310 \quad$ Music History I 3
MUS 311 Music History II 3
MUS 231 Fundamentals of Conducting I 1
MUS 232 Fundamentals of Conducting II 1
MUS 370 World and Popular Music 3

## Music Minors

Music: 18 credit hours
MUS 108 Music Theory I 2
MUS 109 Music Theory II 2
MUS 128 Aural Skills I 2
MUS 129 Aural Skills II 2
MUS 210 Introduction to Music Literature 2
Applied Music 4
Ensembles 4
Attendance at recitals and concerts
$\begin{array}{lll}\text { Music Education: } \mathbf{1 9} \text { credit hours (for elementary education majors): } \\ \text { MUS } 108 & \text { Music Theory I } & 2\end{array}$
MUS $109 \quad$ Music Theory II 2
MUS 128 Aural Skills I 2
MUS 129 Aural Skills II 2
MUS 210 Introduction to Music Literature 2
MUS 350 Elementary School Music 2
Applied Music including piano if needed 3
Ensembles 4
Attendance at recitals and concerts
(This does not certify students to teach music classes as a regular music teacher.)

## Department of Physical Education

The Physical Education Department offers two types of core courses to meet the core requirement, as well as offering courses to meet the Sport Coaching minor. No major is available in this field.

In the Department of Physical Education we seek to provide a positive learning environment that will enhance instruction and learning in the area of lifetime fitness. Instructors strive to be role models for each student while providing instruction and guidance for a life of spiritual, physical, emotional, and mental wellness. A goal is to enhance the student's sense of responsibility regarding caring for one's body as the "temple of the Lord" (I Corinthians 6:19-20).

## Core Requirement

Two credit hours of physical education, PED 103 - Physical Fitness and PED 101, are required of all students for graduation. Students who are participating in intercollegiate athletics may receive one credit only towards the physical education requirement PED 101. The only recognized intercollegiate sports are baseball, basketball, cross-country, football, soccer, and track and field for men, and basketball, cross-country, soccer, softball, tennis, track and field, and volleyball for women. Students in marching band may also receive one credit for PED 101.

A veteran's military training is accepted to meet the physical education requirement. See page 28.

## Sport Management Major •BS- Program Requirements 57 credit hours

The Sport Management major prepares students for positions in the athletic world including athletic administration, sport/recreational facility management, and coaching and event management. Students explore the theories and principles of management as applied to sport programs and facilities. As a joint venture of the Department of Business and the Department of Physical Education, the goal of the sport management major is to prepare students to become a valuable part of the workforce in a variety of venues within the sport culture, thereby fulfilling the Geneva College mission statement, "for the purpose of developing servant-leaders, transforming society for the kingdom of Christ."

Take each of the following Business courses (39 credits):
ACC 151 Accounting I 3
BUS 110 Business Foundations 3
BUS 115 Business Communication 3
BUS 241 Quantitative Analysis I 3
BUS 310 Principles of Management 3
BUS 311 Business Law 3

| BUS 314 | International Business | 3 |
| :--- | :--- | ---: |
| BUS 320 | Principles of Marketing | 3 |
| BUS 330 | Principles of Finance | 3 |
| BUS 400 | Biblical Management and Business Ethics | 3 |
| BUS 410 | Strategic Management | 3 |
| ECO 211 | Micro Economics | 3 |
| ECO 212 | Macro Economics | 3 |
|  |  |  |
| Take each of the following SPM courses (18 credits): | 3 |  |
| SPM 101 | Introduction to Sport Management | 3 |
| SPM 201 | Legal Issues in Sport | 3 |
| SPM 206 | Governance and Organization of Sport | 3 |
| SPM 302 | Facility Management and Design | 3 |
| SPM 401 | Sport in American Culture | $3-12$ |
| SPM 493 | Internship |  |

## Sport Coaching Minor

Courses in the Sport Coaching Minor can prepare students for coaching in interscholastic, intercollegiate, community, and youth sport organizations.

The following 18 credit hours must be taken to fulfill the requirements for a sport coaching minor:
PED 203 Exercise Physiology 3

PED 205 Sport Coaching Practicum 3
PED 255 Athletic Training 3
PED 301 Psych/Motor Learning Aspects of Sport Performance 3
SPM 101 Introduction to Sport Management 3
SPM 401 Sport in American Culture 3

## Sport Management Minor (business concentration)

Courses in the sport management concentration, in conjunction with a business major, can prepare students for employment in professional, amateur, interscholastic, intercollegiate, community and youth sport organizations.

| The following | 18 | credit hours are required to complete a minor in sport management: |
| :--- | :--- | :---: |
| SPM 101 | Introduction to Sport Management | 3 |
| SPM 201 | Legal Issues in Sport | 3 |
| SPM 205 | Sport Management Practicum | 3 |
| SPM 301 | Psych/Motor Learning Aspects of Sport Performance | 3 |
| SPM 302 | Facility Management and Design | 3 |
| SPM 401 | Sport in American Culture | 3 |

## Department of Psychology, Counseling and Human Services

The department offers three undergraduate majors-psychology, biopsychology, and human services-as well as a master of arts in counseling.

Faculty members of the department of psychology, counseling and human services approach the study and practice of psychology, counseling and human services from a Christian perspective. They mentor and encourage students in their academic and Christian spiritual development. Faculty members are affiliated with professional organizations including the American Psychological Association, the Christian Association for Psychological Studies, the American Counseling Association, the American Psychological Society, the American Association of Marriage and Family Therapists, the National Organization for Human Service Education, and the National Council on Family Relations.

## Psychology Major - BS - Program requirements 49-50 credit hours

Psychology, the study of behavior and thinking, provides a strong basis for many careers. Psychology graduates are well prepared for graduate school in a specialized field of psychology such as clinical, counseling, industrial, or experimental psychology. Psychology graduates also find themselves prepared for graduate study in many other fields such as business, ministry, theology, or medical fields. Those with a bachelor's degree in psychology who do not wish to pursue graduate
study are eligible for a wide array of jobs working with people. The understanding of human behavior, personality, emotions, and groups, is an exciting discipline with broad application to almost all areas of life.

Honors students are invited to participate in Psi Chi, a national psychology honorary society. Each year outstanding psychology students are selected by the faculty to receive the Lewis G. Walker Award affording opportunity to attend a nationally recognized psychology conference.

The Bachelor of Science in psychology incorporates the broad study of psychology and methods of inquiry within the context of a Christian worldview. Students develop a general knowledge base that includes human development, social psychology, statistics, research methods, abnormal psychology, personality, biological bases, and cognitive psychology. A doctoral degree in psychology is required for those who wish to become licensed psychologists, professors of psychology, or research scientists and a master's degree is required for those who wish to be licensed counselors.

The psychology major provides comprehensive understanding of both psychological science (research methods and findings) as well as psychological practice (applying research results to solve human problems). Hence, it includes courses that incorporate a research and writing emphasis, as well as courses that examine practice and applications of psychological research. All students participate in an orientation to the field of psychology course at the beginning of the program and a seminar during the senior year, which serves as a capstone course oriented toward fostering students' professional development and planning. In all courses, students learn to evaluate and apply psychology from a Christian perspective.

Take each of the following PSY courses (49 credit hours):

| HSV 202 | Human Diversity | 3 |
| :--- | :--- | :--- |
| PSY 201 | Introduction to Psychology | 3 |
| PSY 202 | Biological Bases of Behavior | 3 |
| PSY 205 | Psychological Statistics | 3 |
| or MAT 105 | Elementary Statistical Methods | 3 |
| PSY 206 | Orientation to Psychology | 3 |
| PSY 207 | Research Methods in Psychology | 3 |
| PSY 250 | Life Span Development | 4 |
| PSY 325 | Cognitive Psychology | 3 |
| PSY 404 | Personality Psychology | 3 |
| PSY 408 | Social Psychology | 3 |
| PSY 411 | History and Theories of Psychology | 3 |

Take two of the following PSY courses (six or seven credit hours):
PSY 260 Tests and Measures 3
PSY 313 Abnormal Psychology 3
PSY 320 Conditioning and Learning 4
PSY 326 Emotion and Memory 3
PSY 329 Lab - Basic Process 3
Take one of the following PSY courses (three credit hours):
PSY 229 Lab - Developmental 3
PSY 251 Child Development 3
PSY 252 Adolescent Development 3
PSY 253 Adulthood and Aging 3
Take one of the following PSY courses (three credit hours):

| PSY 405 | Psychology of Gender | 3 |
| :--- | :--- | :--- |
| PSY 406 | Psychology of Prejudice | 3 |
| PSY 423 | Psychology Research Literature | 1 |
| and PSY 424 | Applied Psychological Research | 2 |
| PSY 429 | Lab, Social | 3 |
| PSY 450 | Special Topics in Psychology | 3 |

## Psychology Minor

Any 18 credit hours from the list below:
HSV 202 Human Diversity 3
PSY 201 Introduction to Psychology 3
PSY 202 Biological Bases of Behavior 3
PSY $205 \quad$ Psychological Statistics 3
or MAT 105 Elementary Statistical Methods 3
PSY 206 Orientation to Psychology 3
PSY 207 Research Methods in Psychology 3
PSY 250 Life Span Development 3
PSY251 Child Development 3
PSY 252 Adolescent Development 3
PSY 253 Adulthood and Aging 3
PSY 260 Tests and Measures 3
PSY 313 Abnormal Psychology 3
PSY $320 \quad$ Conditioning and Learning 4
PSY 325 Cognitive Psychology 4
PSY 326 Emotion and Memory 3
PSY 404 Personality Psychology 3
PSY $405 \quad$ Psychology of Gender 3
PSY $406 \quad$ Psychology of Prejudice 3
PSY 408 Social Psychology 3
PSY 411 History and Theories of Psychology 3
PSY $423 \quad$ Psychology Research Literature 1
and PSY 424 Applied Psychological Research 2
PSY 425 Senior Seminar in Psychology 3

## Biopsychology Major • BS-Program requirements 69 hours

Recent advances in the understanding of brain function and how it relates to behavior have led to the emergence, development and rapid expansion of a new interdisciplinary scientific field of Biopsychology. This area of study explores the relationship between physiological and psychological systems. A major objective for this discipline is to provide a deeper understanding of how the physiology of the body functions in behavior, and also how defects in such function affect behavior. Recent advances in neuroscience and psychology have led to materialistic and scientific explanations of the mind, which in turn, influence fields of ethics, anthropology, theology, and philosophy. For example, a 2009 Wall Street Journal op-ed article by William McGurn expressed concern about a scientific view of human nature for its ability to account for love, morality and human dignity. He points out that those who claim the mind can be reduced to electrochemical processes rarely live out the implications of that view. As Christians we should join in on this type of conversation and bring the metaphysical reality of God to bear on these types of issues. Although we must avoid the exclusivity of the current pervasive reductionistic philosophy in the study of biology and behavior, it is nevertheless clear that some behaviors and cognitive functions can be localized to specific physiological systems.

Our goal for the Biopsychology degree program is to structure a curriculum of courses that provide training in this new field as well as provide tools for engaging this area with Christian critique and discernment. The curriculum includes Psychology courses having a developmental and biological approach, along with Biology courses dealing with humans and/or animals at the genetic and molecular levels. Cognates in other disciplines are also to be required (e.g., Bible, Chemistry, Physics, and Philosophy).

Take each of the following courses:

| BIO 112 | Introduction to Cellular Biology | 4 |
| :--- | :--- | :--- |
| BIO 225 | Human Anatomy and Physiology I | 4 |
| BIO 226 | Human Anatomy and Physiology II | 4 |
| BIO 319 | Genetics | 4 |
| BIO 331 | Biomedical Ethics | 3 |
| BIO 422 | Neuroscience | 4 |
| CHM 111 | General College Chemistry | 4 |
| CHM 221 | Organic Chemistry I | 4 |
| PHI 110 | Introduction to Philosophy | 3 |
| PSY 201 | Introduction to Psychology | 3 |
| PSY 202 | Biological Bases | 3 |
| PSY 205 | Psychological Statistics | 3 |
| PSY 206 | Orientation to Psychology | 3 |
| PSY 207 | Research Methods in Psychology | 3 |
| PSY 250 | Life Span Development | 3 |
| PSY 313 | Abnormal Psychology | 3 |
| PSY 320 | Conditioning and Learning | 4 |
| PSY 325 | Cognitive Psychology | 4 |
| PSY 326 | Emotion and Memory | 3 |
| PSY 425 | Senior Seminar in Psychology | 3 |

## Human Services Major • BS - Program requirements 50 credit hours

The human services field uses an interdisciplinary knowledge base, which includes, but is not limited to, psychology, sociology, anthropology to remediate and to assist individuals, families, groups, and communities to function as effectively as possible, by providing direct services, improvement of service accessibility, accountability, and coordination, as well as through prevention strategies. Graduates with a major in human services are prepared to work with different populations such as children, the indigent, the distressed, the elderly, the homeless, the abused or victimized, and the physically or mentally handicapped or ill and also are prepared to work in various human service settings (e.g., church or faith-based programs, the public welfare system, community development, public housing, children/youth/family services, residential treatment facilities, hospitals, prisons). Graduates also find themselves prepared for graduate studies in many fields such as human services, social work, counseling, psychology, sociology, criminal justice, or ministry.

The interdisciplinary approach of the human services affords students the opportunity to explore human services, practice, and theory from a variety of academic perspectives. Core courses in psychology prepare the students to comprehend normal human development. Human services courses stress a basic understanding of the history of social welfare, issues of diverse population groups, social systems, and the role of various service agencies in meeting human needs. Methodology courses promote understanding of the experimental methods employed in studying human behavior and systems. Internship and skills-based course work assure that students will possess the requisite generalist practice competencies needed to perform successfully in human services agencies. During the senior year, students complete semester-long internships in public, private, church, and government human services agencies.

| Take each of the following HSV courses (35 credit hours): |  |  |
| :--- | :--- | :--- |
| HSV 201 | Introduction to Human Services | 3 |
| HSV 202 | Human Diversity | 3 |
| HSV 215 | Human Services: Foundations and Calling | 2 |
| HSV 230 | The Family System in Context | 3 |
| HSV 301 | Social Welfare Agencies and Policies | 3 |
| HSV 303 | Agency Field Experience | 3 |
| HSV 305 | Counseling and Helping Skills I | 3 |
| HSV 307 | Generalist Practice, Model, and Theory | 3 |
| HSV 401* | Senior Seminar | 3 |
| HSV 405 | Community Intervention and Special Population | 3 |
| HSV 450* | Field Experience | 6 |

*HSV 401 and HSV 450 are taken concurrently. Admission is only by application and eligibility. Several prerequisites and an extensive time commitment make it essential to plan carefully for these courses.

Take one of the following statistics courses (three credit hours):
MAT $105 \quad$ Elementary Statistical Methods
PSY 205 Psychological Statistics 3
Take each of the following PSY courses ( 9 credit hours):
PSY 201 Introduction to Psychology 3
PSY 250 Life Span Development 3
PSY 313 Abnormal Psychology 3
Take the following SOC course ( 3 credit hours):
SOC 201 Sociological Imagination 3
Optional course (taken with HSV 303):
HSV 302 Program Evaluation for Human Services 1

## Human Services Minor

18 credit hours
$\begin{array}{ll}\text { Take each of the following HSV courses ( } 15 \text { credit hours): } \\ \text { HSV } 201 & \text { Introduction to Human Services }\end{array}$
HSV 202 Human Diversity 3
HSV 230 The Family System in Context 3
HSV 301 Social Welfare Agencies and Policies 3
HSV 307 Generalist Practice, Model, and Theory 3
Take one of the following courses (three credit hours):
Any psychology (PSY) or human services (HSV) course 3
HSV 303, 401, and 450 are for majors only.
Depending on student demand, HSV 305 may only be available for majors.

## Pre-Professional Programs

## Pre-Law Program

To be admitted to a law school accredited by the American Bar Association, and eventually to the practice of law, the student generally must receive a bachelor's degree from an accredited college or university and an acceptable score on the Law School Admissions Test (LSAT). Most law schools prefer that students not make legal studies the focus of their undergraduate work. For this reason, Geneva College does not offer a pre-law major.

Geneva's pre-law committee provides counsel and advice to students interested in careers in the legal professions. The committee seeks to assist students in assessing their interests in the legal profession, in thinking about the role Christians should play in the legal profession, in preparing for law school and for the LSAT, and in the law school application process. Students with an interest in the legal professions are urged to identify themselves to the committee through the pre-law adviser, Dr. Frederick Neikirk.

While no particular major is necessary to gain admission to law school, law schools are looking for students who have good analytic and communication skills and a solid background in history and the social sciences. These attributes are also necessary for success in the practice of law. Many of these skills and much of this background knowledge can be attained through the core curriculum of the college. For students who want to pursue these in more depth Geneva offers a minor in pre-law studies. This minor is designed to build on the skills and understandings developed in the core, to supplement the student's major, and to help the student gain some understanding of the study and practice of law.

## Pre-Law Studies Minor

The pre-law studies minor requires at least six courses of which two must be chosen from the skill-oriented courses, two from the background courses, and one from the law-related courses. The sixth course may come from any of the three areas. No more than one course in this minor may be used to fulfill the requirements of any major and no more than one may be used to fulfill the requirements of the core curriculum. Students should see the pre-law adviser for more information on this minor and for assistance in planning which combination of courses will best meet their needs and interests.

| Approved Skill-Oriented courses: |  |  |
| :---: | :---: | :---: |
| ACC 151 | Accounting I | 3 |
| ACC 152 | Accounting II (recommended, may not be used in the minor) | 3 |
| COM 215 | Argumentation and Debate | 3 |
| COM 310 | Public Speaking | 3 |
| ENG 113 | Researched Writing |  |
| or ENG 205 | Advanced Composition | 3 |
| PHI 100 | Logic | 3 |
| Approved Background courses: |  |  |
| ECO 100 | Fundamentals of Economics |  |
| or ECO 211 | Micro Economics |  |
| or ECO 212 | Macro Economics | 3 |
| HIS 250 | US I: Colonial |  |
| or HIS 251 | US II: $19^{\text {th }}$ Century |  |
| or HIS 252 | US III: $20{ }^{\text {th }}$ Century |  |
| or HIS 381 | History of Britain | 3 |
| PHI 112 | Ethics | 3 |
| POL 151 | American Government |  |
| or POL 254 | State and Local Government |  |
| or POL 361 | American Public Policy | 3 |
| PSY 201 | Introduction to Psychology |  |
| SOC 201 | Sociological Imagination |  |
| or SOC 310 | Deviance and Marginalization. | 3 |
| Approved Law Related courses: |  |  |
| BUS 311 | Business Law | 3 |
| POL 305 | Constitutional Law | 3 |

Plus approved internship, special topics course, or off-campus course which introduces the student to some aspect of the law or legal profession. Students must see the pre-law adviser to get permission to include such a course or internship in the minor.

## Pre-Medical Program

The Geneva College curriculum provides an opportunity within a liberal arts context to fulfill the requirements for admission to allopathic or osteopathic medical schools and to professional schools of dental, veterinary, and podiatric medicine as well as optometry. The minimum entrance requirements for most of these schools can be met by completing the following courses: BIO 112, BIO 225, BIO 226, BIO 319, CHM 111, CHM 221, CHM 222, PHY 201, PHY 202 (or PHY 181, PHY 182), and six credit hours of English writing. Successful completion of these courses will also give the student the minimum preparation for the national admissions exams such as the MCAT, DAT, VAT, GRE, or OAT. Therefore, it is advisable that the student has completed or be enrolled in these courses by the spring of the junior year when these tests are ordinarily taken.

In addition, to provide the best preparation for the medical professions as many as possible of the following courses should be completed: BIO 302 Embryology, BIO 305 Microbiology, BIO 315 Immunology, BIO 317 Biochemistry, BIO 331 Biomedical Ethics, BIO 405 Molecular Biology, and BIO 422 Neuroscience.

Pre-medical students should complete the requirements for a major within an academic discipline. The most common majors of students preparing for a career in medicine are biology, chemistry, and psychology, although most other majors are acceptable if the student has an excellent record of achievement. See page 40 for biology major requirements and page 49 for chemistry major requirements.

Suggested electives, occasionally recommended by medical schools: MAT 120 Precalculus, MAT 161 Calculus I, PSY 313 Abnormal Psychology, SOC 221 Social Groups and Institutions, CHM 318 Biochemistry II.

# NON-TRADITIONAL UNDERGRADUATE PROGRAMS 

## The Center for Urban Theological Studies (CUTS)

Since the fall of 1978, Geneva College has extended its kingdom ministry into the city by offering biblically focused training to urban church leaders at the Center for Urban Theological Studies (CUTS), located at 1300 W. Hunting Park Avenue in Philadelphia. The purpose of the Geneva College program at CUTS is to serve the educational needs of urban church leaders. The program offers an associate of arts in Biblical studies, associate in business administration, a bachelor of science in urban ministry leadership, a bachelor of science in human resources, a bachelor of science in human services, and a bachelor of science in Bible and ministry. The center has a full-time administrative and faculty staff to manage the various programs. CUTS has been recognized nationally and the program is a model for education to church leaders in the urban setting.

For curriculum details call 215-329-5400 or e-mail admissions@cuts.edu.

## The Center for Urban Biblical Ministry (CUBM)

The Center for Urban Biblical Ministry (CUBM) was established in Pittsburgh in 1992 using the CUTS model in Philadelphia. The purpose of the program is to offer biblically based education to urban church leaders and active laypersons who have had little or no previous college experience. The program is based at the Reformed Presbyterian Theological Seminary in the Point Breeze area of Pittsburgh. The program offers an associate of arts in Christian ministry, an associate of arts in business administration, and an associate of science in human services that prepare students to enter the Geneva Degree Completion Program in human resources or community ministry or other four-year degree programs. Classes are offered in the evening and students can take from one to three classes per semester. The program is staffed by a director who is supported by the various administrative offices on the Beaver Falls campus.

For curriculum details call 412-247-9010 or e-mail kbyrd@cubm.org.

## Adult Degree Completion Programs

These special programs are available for students who have had prior college and work experience and who are seeking to complete a baccalaureate program.

The academic programs for the adult degree completion program (ADCP) consist of curriculum that is taught over 17 months. Classes of 8 to 16 meet once per week for four hours, which is considered full time, and the class remains together for the entire program. Class meetings are held in facilities geographically convenient to the students. Learning in this nontraditional format will be processed and evaluated through written reflection, oral presentations, classroom activities, exams, and applied research involving the study of an existing organization.

To be admitted to the ADCP, adults must have a minimum of 64 credit hours of transferable credit from an accredited college or university with a GPA of 2.0 or above, five years of post-high school experience, and demonstration of writing competency. This program is not intended for the traditional undergraduate student.

For specific details on curriculum, admission and graduation requirements, tuition and fees, class start dates, or any other aspects of the program, contact the adult degree completion program at 724-847-6756 or 800-576-3111.

ADCP students must satisfy Geneva College core requirements, either by Geneva College Bridge Program credit or by transfer.

## Minimum Core Requirements - $\mathbf{1 8}$ credit hours

| English composition | 3 credit hours |
| :--- | :--- |
| Humanities | 6 credit hours |
| Natural science | 6 credit hours |
| Social science | 3 credit hours |

## Bridge Program

The Bridge program helps working adults who have earned fewer than the 64 credit hours required to enter Geneva's adult degree completion program or who need additional credits to complete their degree requirements. Through the Bridge program students can continue their education in a seminar-style program designed specifically for working adults. Highlights of the Bridge program include:

- Curriculum designed specifically for adults
- Flexible tuition and financial packages
- Comfortable, small group settings
- Textbooks and materials delivered directly to the students
- One class meeting per week, 6 pm to 10 pm for six to eight weeks
- Some online class offerings
- Highly qualified faculty who are experienced in their fields
- Easy online application for registration

The Bridge program offers adults who have been away from the college classroom for some time the opportunity to acquaint themselves with Geneva's innovative and adult-friendly format. Courses in the Bridge program are scheduled in the fall, spring, and summer. Check Geneva's web site or call the ADCP office 724-847-6756 or 800-576-3111 for course offerings.

## Community Ministry Major - BS

Curriculum in the Community Ministry (CMN) major is focused on developing Christian leaders to serve effectively by enabling them to envision, plan, implement, and evaluate church or parachurch ministries that may transform their communities. Adult students who complete this major produce as part of their course work an Applied Research Project, which engages a real-life ministry topic that relates to the students' area of ministry interest.

Major Courses- 48 semester hour credits
TERM I
CMN $401 \quad$ Principles of Christian Community 3

CMN 430* Organizational Analysis: Community Ministry 3
CMN 408 Spiritual Formation 3
CMN 403 Personal Leadership Assessment and Development 3

| TERM II |  | 3 |
| :--- | :--- | :--- |
| CMN 404 | Old Testament Principles for Ministry | 3 |
| CMN 432* | Community Ministry: Research and Resources | 3 |
| CMN 406 | The Church in Its Community | 3 |


| TERM III |  |
| :--- | :--- |
| CMN 415 Principles of Grief Ministry |  |

HMT 411* Humanities 3
CMN 434 Research Methods: Community Ministry 3

CMN 409 Principles of Family Ministry 3

| TERM IV |  | 3 |
| :--- | :--- | :--- |
| CMN 436* | Organizational Change: Community Ministry | 3 |
| CMN 416 | Theology and Practice of Evangelism | 3 |
| CMN 410 | Leadership for Mission and Ministry | 3 |
| CMN 438 | Organizational Change: Community Ministry |  |

## Human Resources Major - BS

Curriculum in the Human Resources (HRS) major is focused on the challenges faced in management, supervision, and organizational behavior. Topics includes human resources administration, group dynamics, styles of leadership, business and research writing, problems of supervision, decision-making, organizational behavior, problem solving, effective interpersonal relationships, faith and worldview analysis, and ethics. Also included is a five course major-specific research sequence.

## Major courses- 48 semester hour credits

TERM I
HRS 440 Dynamics of Group and Organizational Behavior 3
HRS 430* Organizational Analysis: Human Resources 3
BBL 408 Faith Perspectives 3
HRS 451 Human Resources Administration I 3

TERM II
HRS 441
HRS 432* Human Resources: Research and Resources 3
HRS 453 Human Resources Administration II 3
HRS 457 Principles of Management and Supervision 3
TERM III
HRS 455
Human Resources Administration II
3
HMT 411* Humanities 3
HRS 434 Research Methods: Human Resources 3
HRS 443 Interventions and Training 3
TERM IV
HRS 436* Data Analysis and Display: Human Resources 3
HRS 458 Human Resources Administration IV 3
HRS $442 \quad$ Values and Ethical Decision-Making 3
HRS 438 Organizational Change: Human Resources 3

## Human Services Major - BS

The Department of Psychology, Counseling, and Human Services at Geneva College designed the academic curriculum Human Services (HSS) major with the needs of the community in mind to provide students with a theoretical and practical framework that will prepare graduates to assume positions in the human service field. Graduates are expected to demonstrate mastery of academic content: 1) Normal human development from conception to death; 2) Abnormal and deviant behavior, including mental illness, drug/alcohol abuse, criminality, etc.; 3) Social problems, including poverty, racism, ageism, and the social organizations designed to address these problems; 4) Human diversity, including racial, ethnic, cultural, gender, age, and religious differences; 5) The role of marriage and the family in various social contexts; 6) The history of human services and social welfare policies; 7) Successful intervention skills including the nature of helping relationships, communication, delivery of individual, group and community services, effective casework management; 8) The interrelatedness of social agencies and the roles they play in social interventions; 9) The integration of Christian faith with stewardship and service to others.

| Major Courses- <br> TE semester hour credits <br> TERM |  |  |
| :--- | :--- | :--- |
| HSS 201 | Introduction to Human Services | 3 |
| HSS 301* | Social Welfare Agencies | 3 |
| BBL 408 | Faith Perspectives | 3 |
| HSS 202 | Human Diversity | 3 |
| TERM II |  |  |
| HSS 305 | Counseling and Helping Skills | 3 |
| HSS 432* | Research and Resources | 3 |
| HSS 405 | Community Mental Health | 3 |
| HSS 307 | Generalist Practice, Model and Theory | 3 |
|  |  |  |
| TERM III |  | 3 |
| HMT 411* | Humanities | 3 |
| HSS 303 | Agency Field Experiece | 3 |
| HSS 230 | Family System in Context | 3 |
| PSS 250 | Lifespan Development |  |

## TERM IV

| HSS 401 | Senior Seminar** | 3 |
| :--- | :--- | :---: |
| HSS 450 | Field Experience | 6 |
| HSS 434 | Applied Research and Statistics | 3 |
| $(* *$ NOTE: | HSS 401/450/434 will be delivered concurrently over the 17 week term.) |  |

## Organizational Development Major - BS

The Organizational Development (ORD) major prepares graduates to understand, assess and serve changing human systems in a variety of contexts. Recognition is given to a variety of perspectives on organizational structures and the forces that drive and control change within organizations. The reformed heritage, with a focus on ethics and worldview, guides content and critique within this major. This major prepares students to meet the needs of organizations for self-aware, higher-order thinkers who can analyze complex human systems, who can lead others effectively, and who can anticipate and facilitate rapid change.

| Major courses- 48 semester hour credits |  |
| :---: | :---: |
| TERM I |  |
| ORD 440 | Dynamics of Group and Organizational Behavior |
| ORD 430* | Organizational Analysis: Organizational Development |
| BBL 408 | Faith Perspectives |
| ORD 464 | Principles of Organizational Development |

TERM II

| ORD 441 | Business and Interpersonal Communication | 3 |
| :--- | :--- | :--- |
| ORD 432* | Organizational Development: Research and Resources | 3 |
| ORD 460 | Organizational Dynamics | 3 |
| ORD 461 | Organizational Planning | 3 |

TERM III
ORD 463 Organizational Performance 3
HMT 411* Humanities 3

ORD 434 Research Methods: Organizational Development 3
ORD 443 Interventions and Training 3
TERM IV
ORD 436* Data Analysis and Display: Organizational Development 3
ORD 462 Organizational Development Consulting 3
ORD 442 Values and Ethical Decision-Making 3
ORD 438 Organizational Change: Organizational Development 3

* Indicates hybrid online course.


## OFF-CAMPUS STUDY OPPORTUNITIES

Arcadia Center for Education Abroad

Arcadia University (formerly Beaver College) offers over 100 programs around the world through its Center for Education Abroad. Arcadia currently offers coursework in 56 fields-from African Studies, Architecture, and Engineering to Geology, Information Technology, and Veterinary Science. For more information and application materials, contact the Crossroads Office.

## Art Institute of Pittsburgh

The Art Institute of Pittsburgh offers a unique option to college affiliate students with a blend of art, design, and academic rigor which will complement a student's Geneva education. AiP is recognized for great faculty who are gifted artists and educators dedicated to providing each student an exceptional learning experience. The downtown Pittsburgh location provides an extended classroom where students may take advantage of all its attractions and amenities.
The Junior Year affiliate program permits students to enroll in AiP's Art, Business, Design, and Media programs to enhance education options. Qualified Geneva students will have completed two years (58-64 credits) at Geneva and must have a GPA of 2.5 or higher. They may enroll at The Art Institute of Pittsburgh for a specialized three-quarter period (45 quarter credit hours equal 30 semester hours) in one of the following programs:
Advertising, Entertainment Design, Fashion \& Retail Management, Game Art \& Design, Graphic Design Industrial Design, Interior Design, Media Arts \& Animation, Photography, Visual Effects\& Motion Graphics.
The equivalent of 30 preapproved credit hours taken at the AiP may be transferred back to Geneva in three ways: as elective credit; as Geneva course equivalents; as block credit constituting a minor. In each case, a student must obtain the approval of the Chair of the Communication Department in advance of enrolling in the AiP. If a Geneva student would like to take courses at the AiP such that he/she would like a grouping of courses to constitute a minor, he/she must successfully complete a minimum of the equivalent of 18 credit hours to do so. Once again, the particular courses and the courses proposed together as a minor must be approved by the Chair of the Communication Department in advance. To be clear, the $50 \%$ rule for a minor will not apply with respect to Geneva students who are attending the AiP during their third year. In addition, COM majors studying at the AiP during their third year are still required to complete the requirements for one of the concentrations in Geneva's COM major (i.e., a proposed concentration/minor to be pursued at the AiP cannot substitute for the concentration that must be completed at Geneva).
Following the completion of the Junior Year option, the student will return to Geneva for completion of senior year and graduation requirements.
Interested students must apply through the Crossroads Office. An application form along with a $\$ 50$ application fee will be submitted to AiP. The Crossroads Office will submit the application on the student's behalf and once it is received at AiP, an enrollment counselor will contact the student.

For additional information and application materials, contact the Crossroads Office.

## Au Sable Institute of Environmental Studies

As described on page 40 under the biology department, Geneva cooperates with the Au Sable Institute of Environmental Studies by offering credit for summer courses at Au Sable's nature studies center near Mancelona, Michigan. Courses can be chosen from the following list:

Advanced Field Botany
Alpine Ecology
Animal Ecology
Aquatic Biology
Bioethics
Biosphere Science
Conservation Biology
Directed Individual Studies
Ecological Agriculture
Ecology of the Indian Tropics
Environmental Chemistry
Environmental Education
Environmental Ethics
Environmental Health: An Ecological Perspective
Field Botany

Field Natural History<br>Forest Ecology<br>Global Development and Ecological Sustainability<br>Insect Biology and Ecology<br>Land Resources<br>Land Stewardship Ecology<br>Limnology<br>Marine Biology<br>Marine Invertebrates<br>Marine Mammals<br>Molecular Tools for the Field Biologist<br>Ornithology: Eastern Birds<br>Plant Ecology<br>Post-Baccalaureate Directed Studies<br>Research<br>Research Methods I and II<br>Restoration Ecology<br>Restoration Ecology Applications<br>Summer Flora<br>Tropical Agriculture and Missions<br>Watershed Stewardship<br>Wildlife Ecology<br>Woody Plants

For complete course descriptions and registration procedures, obtain an official Au Sable bulletin from Marjory Tobias, mctobias@geneva.edu, or log on to the Au Sable web site at ausable.org. Any Au Sable course with 90-100 contact hours will give four credit hours of BIO, CHM, or SCS, depending on the specific course. In combination with specified courses at Geneva, students can qualify for certification as naturalists, as environmental analysts, as land or water resources analysts, or for an environmental science minor (page 42).

## Cornerstone Institute

Located in the heart of beautiful Cape Town, South Africa. Cornerstone Institute is one of the premier leadership development facilities in Southern Africa. While it may be one of the largest Christian colleges in South Africa, they remain a small college at heart. They value relationships as they seek to live out their commitment to be a transforming community in their nation and beyond. While at Cornerstone, students will have the amazing opportunity to live with a host family as they study subjects in a range of disciplines including Christian Studies, Biblical Studies, Psychology, Sociology, and Community Development. During the semester there will be plenty of opportunities for local site visits. Students may also have the opportunity to participate in a three-week fieldwork placement in an impoverished community near Cape Town. This program is held during the Spring semester. For additional information and application materials, contact the Crossroads Office.

## Covenanter Theological Institute (Airdrie, Scotland)

Via the Covenanter Theological Institute in Airdrie (Glasgow).
This semester-long program gives Geneva College students the opportunity for a life-changing experience in a historic Christian setting in the British Isles. Students will gain knowledge of the Scottish Reformation and the "Covenanters" (who struggled for freedom of the church apart state interference) and study their relevance for ministry today.

The program gives students access to ministry in a church-growth situation, as they are discipled by Pastor Andrew Quigley in the greater-Glasgow area. The study program includes four hours per day of structured personal study time, along with seminars and lectures. Students in this program are opened to a range of ministry opportunities and personal discipleship time with an experienced pastor in a congregational environment. Also included are organized trips to the great landmarks of Scottish history and culture, as well as free time to allow plenty of opportunities for sightseeing in this picturesque country. From studying past history to ministering in present-day reality, Christ and His Kingdom are at the heart of the Scotland Study Program.

Students earn a total of 15 semester credit hours, though additional credit hours to augment this program may be arranged individually with Geneva faculty.

For additional information and application materials, contact Dr. Jonathan Watt (Biblical studies) or the Crossroads Office.

## Geneva College Semester in Rome

The Semester in Rome Program provides an opportunity to spend a semester in residence at Geneva College's center in Rome. Participants complete a core Humanities course ( 9 credit hours), taught by a Geneva faculty member, that explores history, visual art, literature, music, and philosophy using the rich Italian context as its foundation. The interdisciplinary course integrates field trips to sites throughout Italy with readings, lectures, and seminars. Students also complete a course in Italian language and culture ( 4 credit hours), a course in the resident faculty member's field of specialty ( 3 credit hours), and a book discussion ( 1 credit hour). Participants may choose to take part in opportunities for ministry and service in Rome as well as to travel throughout Europe when class is not in session. Prerequisite: Invitation to the Humanities (HUM 103). Contact the Crossroads Office for additional information and application materials.

## Focus on the Family Institute (FFI)

Focus on the Family Institute provides a unique Christian educational community, equipping student leaders to impact culture for Christ. The Institute offers a personalized semester program that crosses academic and professional disciplines. Both the fall/spring semester and the summer session address issues facing our culture such as: worldview, belief systems, public policy issues, the decline of the family and the role of the church in society. Located on the campus of Focus on the Family, the Institute offers students unique opportunities to interact with various national and international religious, educational, and political leaders and experts.

## Jerusalem University College

Geneva College maintains membership in the Associated Schools of Jerusalem University College. Geneva students therefore can take classes in Jerusalem for Geneva College credit. Adviser to the program is Dr. Byron G. Curtis.

Subscribing to the historic Christian faith in the evangelical and nondenominational tradition, Jerusalem University College, facilitating the interests of its consortium of associate schools, offers graduate and undergraduate programs of study at its campus on Mount Zion in Jerusalem, Israel.

The programs of study seek to enhance students' understanding of the Bible and of the cultures of the Middle East. Specifically, students may achieve their educational objectives by:

- A rigorous study of the history, archaeology, and geography of Israel and other areas of the Middle East.
- A mastery of Biblical language and literature and a working knowledge of other Semitic languages appropriate to their study programs.
- An accurate understanding of the cultural, philosophical, and religious expressions of the ancient and modern peoples of Israel and other countries of the Middle East, including the relationship of Israel with other Middle East nations and the role of Israel in the ancient and modern worlds.
- A maximal use of and personal interaction with the unique academic and cultural resources available to them in the classroom and their fieldwork in Jerusalem, throughout Israel, and in other regions of the Middle East.


## LCC International University

A university education within an international learning community that transforms people for servant leadership, the goal of LCC is to engage students in a transforming educational experience. To create a generation of leaders for Eastern Europe who think critically, promote democratic ideals, develop a market economy, and re-build the network of civil society within the context of a Christian worldview. LCC is located in Klaipeda, Lithuania: a major ice-free port city on the Baltic Sea connecting Russian and Western European business and industry. The semester at LCC is a five (5) course fifteen (15) credit program. Included in the program is an orientation week with travel throughout Lithuania, and a one week trip to St. Petersburg and Moscow. For additional information and application materials, contact the Crossroads Office.

## Semester In Spain

In affiliation with Trinity Christian College, Geneva College students may study abroad in Seville, Spain. Students are offered beginning, intermediate, and advanced courses in Spanish. During the semester students will be challenged academically in the study of the Spanish language, culture, history, and art by a faculty of all native Spaniards. Students will also live with a host family, learning their traditions and experiencing the ways in which they live. The education will be so much more than sixteen (16) course credits. Participants are able to visit Córdoba, Toledo, Granada and the small pueblos outside Seville. During their semester, students will gain improved language fluency and a greater understanding of Spain and Europe. Semester In Spain provides high quality academic instruction in an experiential format. The program Geneva College
offers a global perspective with depth of study in Spanish language, culture, and history. Consistent with Geneva's mission of equipping students for lives of Christ-like service, the program nurtures a context of Christian support and community. For additional information and application materials, contact the Crossroads Office.

## The Council for Christian Colleges \& Universities Programs (BestSemester)

The Council for Christian Colleges and Universities (CCCU), an association of 110 members and 70 affiliate institutions in 23 countries, offers the following semester and summer programs to students of its member institutions. The programs offer a unique opportunity for students to make the world their classroom. These interdisciplinary learning opportunities are available to second-semester sophomores, juniors, and seniors. For further information, contact either the Crossroads Office.

## American Studies Program (ASP)

Founded in 1976, the American Studies Program has served hundreds of students as a "Washington, D.C. campus." ASP uses Washington as a stimulating educational laboratory where collegians gain hands-on experience with an internship in their chosen field. Participants explore pressing national and international issues in public policy seminars led by ASP faculty and Washington professionals. Students select enrollment in the Public Policy Initiatives or Global Humanitarian Enterprise track. Both tracks examine the same public issues and culminate in field projects assessing those issues in light of biblical principles and Christian responsibility. The aim of the program is to help Council schools prepare their students to live faithfully in contemporary society as followers of Christ. Students earn 16 semester hours of credit. For additional information and application materials, contact the Crossroads Office.

## Australia Studies Centre (ASC)

Since Spring 2004, the CCCU has partnered with the Wesley Institute in Sydney, Australia to offer the Australia Studies Centre. Throughout the semester, students study theology, global justice issues affecting Australia, Indigenous cultures, and the arts. Every student is required to take the courses "The View from Australia: Issues in Religion, Politics, Economics \& Cultural Values" and "Indigenous History, Cultures \& Identity." Additionally, students choose electives in theology/ministry, music, drawing/graphic design, dance and/or drama. Home stays, service learning and travel around Australia are important components of the ASC. Students observe Australia's beautiful landscape, live in the cosmopolitan melting pot of Sydney, connect with the poor of Sydney's multi-cultural ghettos, and engage the political capital Canberra and its power players. Students also come to know the traditions of Aboriginal people during an Outback excursion and spend the last week of each semester traveling to New Zealand to meet with Maori people. ASC students receive up to 16 semester hours of credit. For additional information and application materials, contact the Crossroads Office.

## China Studies Program (CSP)

The China Studies Program enables students to engage China's ancient history and intrigue from an insider's perspective. While immersed in Chinese culture, students participate in seminar courses on the historical, cultural, religious, geographic, and economic realties of this strategic and populous nation. Students choose between completing a broad Chinese Studies Concentration or a Business Concentration, which includes an internship at an international business in China. Students also study standard Chinese language and apply their skills by serving in an orphanage or tutoring Chinese students in English. The program introduces students to the diversity of China, including Beijing, Shanghai, Xi'an, Xiamen and Hong Kong. This interdisciplinary, cross-cultural program enables students to communicate and understand the unique culture and people of China with an informed, Christ-centered perspective. Students earn 16-17 semester hours of credit. For additional information and application materials, contact the Crossroads Office.

## Contemporary Music Center

The Contemporary Music Center provides students with the opportunity to live and work in the refining context of community while seeking to understand how God will have them integrate music, faith and business. The CMC offers three tracks: Artist, Executive and Technical . The Artist Track is tailored to students considering careers as vocalists, musicians, songwriters, recording artists, performers and producers. The Executive Track is designed for business, arts management, marketing, communications and related majors interested in possible careers as artist managers, agents, record company executives, music publishers, concert promoters and entertainment industry entrepreneurs. The Technical Track prepares students for careers in live sound, concert lighting and studio recording. Students within each of the tracks receive instruction, experience and a uniquely Christ-centered perspective on creativity and the marketplace, while working together to create and market a recording of original music. Each track includes coursework, labs, directed study and a practicum. Students earn 16 semester hours of credit. For additional information and application materials, contact the Crossroads Office.

Geneva College

## Latin American Studies Program (LASP)

Based in San José, Costa Rica, the Latin American Studies Program introduces students to a wide range of experiences through the study of the language, literature, culture, politics, history, economics, ecology and religion of the region. Through living with local families, students become a part of the day-to-day lives of Latin Americans. Students also take part in a practicum/internship and travel to nearby Central American nations. Students participate in one of four concentrations: Latin American studies (offered both fall and spring terms); advanced language and literature (designed for Spanish majors and offered both fall and spring terms), international business (offered only in fall terms); and environmental science (offered only during spring terms). Depending on their concentration, students travel to nearby Central American nations including Nicaragua, Guatemala, Cuba and Panama. Students in all concentrations earn 16-18 semester credits. For additional information and application materials, contact the Crossroads Office.

## Los Angeles Film Studies Center (LAFSC)

Founded in 1991, the Los Angeles Film Studies Center trains students to serve in various aspects of the film industry with professional skill and Christian integrity. Each semester, students live, learn and work in L.A. The curriculum consists of two required seminars, Hollywood Production Workshop and Theology in Hollywood, focusing on the role of film in culture and the relationship of faith to work in this very influential industry. In addition, students choose one elective course from a variety of offerings in film studies. Internships in various segments of the film industry provide students with hands-on experience. The combination of the internship and seminars allows students to explore the film industry within a Christian context and from a liberal arts perspective. Students earn 16 semester hours of credit. For additional information and application materials, contact the Crossroads Office.

## Middle East Studies Program (MESP)

Based in Cairo, Egypt, this program offers students a unique opportunity to explore and interact with the complex and strategically important world of the modern Middle East. Students explore diverse religious, social, cultural and political traditions of Middle Eastern peoples through interdisciplinary seminars. They also study the Arabic language and may work as volunteers with various organizations in Cairo. Through travel in the region (typically Israel, Palestine, Lebanon, Jordan, Syria and Turkey), students are exposed to the diversity and dynamism of the local culture. At a time of tension and change in the Middle East, MESP encourages and equips students to relate to the Muslim, Eastern Christian and Jewish worlds in an informed, constructive and Christ-centered manner. Students earn 16 semester hours of credit. For additional information and application materials, contact the Crossroads Office.

## Oxford Summer Programme (OSP)

The Oxford Summer Programme (OSP) allows students, as affiliate members of Wycliffe Hall, University of Oxford, to do intensive scholarship in the oldest university in the English speaking world. During the five-week programme, students hone their research and writing skills and delve into the areas that interest them most while exploring the relationship between Christianity and the development of the British Isles. Seminars and tutorials are given on specialized topics under expert Oxford academics in the areas of English language and literature, history, including the history of art and history of science, philosophy, and theology and the study of religion. The programme is structured for rising college sophomores, juniors, and seniors, graduate and seminary students, non-traditional students, teachers, and those enrolled in continuing education programs. Students earn 6 semester hours of credit. For additional information and application materials, contact the Crossroads Office.

## Scholars' Semester in Oxford (SSO)

The Scholars' Semester in Oxford in designed for students who want to study intensively and to a high standard. Students develop their academic writing and research skills and explore the disciplines and interests of their choice. As Visiting Students of Oxford University and members of Wycliffe Hall, students study in the oldest university in the English speaking world. SSO students enroll in a primary and secondary tutorial, an integrative seminar (or thesis in the case of second term students), and the British landscape course. Students group their work in a concentration so that all elements of their programme work together. SSO is designed for students interested in classics, English language and literature, theology and the study of religion, philosophy, and history, though all majors may apply. Applicants are generally honors and other very high-achieving students and must have a 3.5 GPA to be considered for the programme. Students earn 17 semester hours of credit for a semester and may complete two semesters of the programme. For additional information and application materials, contact the Crossroads Office.

## Uganda Studies Program (USP)

The Uganda Studies Program provides students with both immersion in a local community and broad exposure to a variety of people and places in Uganda and Rwanda. Students in the Uganda Studies Emphasis (USE) live on campus at Uganda Christian University (an international affiliate of the CCCU), sharing their lives with university students from Uganda and other parts of Africa. Students in the Intercultural Ministry \& Missions Emphasis (IMME) live with host families within walking distance of the university. All USP students take classes from UCU professors and share meals with UCU students. These relationships give students a first hand perspective as they explore issues such as poverty, aid and missions, and as they seek to reconcile the realities of East Africa with their Christian faith. Students also spend time in Rwanda and rural Uganda. In addition to the core experiential course, students will choose from an approved selection of courses from the UCU Honours College to earn up to 16 hours of credit. For additional information and application materials, contact the Crossroads Office.

## Washington Journalism Center (WJC)

The Washington Journalism Center is a semester-long study program in Washington D.C., created for students interested in the field of journalism. While in Washington students take classes focusing on their personal writing skills and on the history and future of the media. These classes- Foundations for Media Involvement; Reporting in Washington; and Washington, News, and Public Discourse-combined with an internship at a top news publication help students learn to integrate their faith in a journalism career. Students also participate in service learning opportunities as part the WJC experience. Students earn 16 semester hours of credit. For more information, contact the Crossroads Office.

## GRADUATE PROGRAMS

## Introduction

Geneva College offers seven graduate programs in a variety of formats. These seven programs are listed below with relevant contact information. More specific information for each program follows, although the most detailed information is available at the websites of the respective programs.

MASTER OF ARTS IN COUNSELING<br>Dr. Carol Luce, Program Director<br>Ms. Jo Ann Westover, Program Coordinator<br>724-847-6697<br>724-847-6101 (FAX)<br>counseling@geneva.edu

MASTER OF ARTS IN HIGHER EDUCATION
Dr. Doanld Opitz, Program Director (Acting)
Ms. Jerryn Carson, Program Coordinator
724-847-5567
724-847-6107 (FAX)
hed@geneva.edu

MASTER OF BUSINESS ADMINISTRATION
Dr. William Pearce, Program Director
Ms. Lori Hartge, Program Coordinator
724-847-6571
724-847-6101 (FAX)
mba@geneva.edu
MASTER OF EDUCATION IN READING
Dr. Adel Aiken, Program Director
Ms. Lori Hartge, Program Coordinator
724-847-6571
724-847-6101 (FAX)
speced@geneva.edu
MASTER OF EDUCATION IN SPECIAL EDUCATION
Dr. Karen Schmalz, Program Director
Ms. Lori Hartge, Program Coordinator
724-847-6571
724-847-6101 (FAX)
reading@geneva.edu
MASTER OF SCIENCE IN CARDIOVASCULAR SCIENCE
Mr. Mark McDowell, Program Director
mark.mcdowell@inova.org
Dr. David Essig, Program Coordinator
dessig@geneva.edue
724-847-6900
MASTER OF SCIENCE IN ORGANIZATIONAL LEADERSHIP
Dr. Jim Dittmar, Program Director
Ms. Linda Roundtree, Program Coordinator
724-847-2715
724-847-4198 (FAX)
msol@geneva.edu

Students can obtain additional general information about graduate education at Geneva in a document entitled Principles and Policies for Graduate Education (PPGE), the most recent version of which is 2008.

# Master of Arts in Counseling <br> Marriage and Family Counseling Program, Mental Health Counseling Program, School Counseling Program 

## Statement of Philosophy

Professional counselors use various interventions to facilitate wellness, personal growth, and mental health among those whom they counsel. A multidimensional holistic view of persons examines the interplay of physical, psychological, social, and spiritual aspects of life. The practice of professional counseling is based on knowledge of mental health, counseling, and human development principles and involves cognitive, affective, behavioral and systems interventions and strategies.

## Mission Statement

The mission of the Master of Arts in Counseling Programs is to educate and train students to develop knowledge, skills, and personal awareness necessary for them to function as professional counselors. The Marriage and Family, Mental Health, and School Counseling Programs serve students from both local and wide geographic areas who wish to integrate an understanding of Christian faith with professional counseling of diverse counselees in a variety of religious and secular settings. The programs are based on a holistic biological, psychological, social and spiritual understanding of human development. In addition to general counseling proficiency, students specifically are trained to become marriage and family, mental health, or school counselors.

- The mission of the Marriage and Family Counseling Program is to train students in the knowledge, skills, and professional understanding of couples and family counseling.
- The mission of the Mental Health Counseling Program is to train entry-level counselors capable of functioning competently and effectively in mental health delivery environments wherein they work from an overall developmental/wellness model utilizing a biopsychosocial framework that employs diagnostically informed intervention strategies.
- The Mission of the School Counseling Program is to prepare school counselors capable of supporting students and their development, and the work of the other professionals in educational systems through (1) excellence in knowledge and practice, (2) integrity through adherence to codes and standards for ethical practice, (3) management of their own professional development, and (4) competent school counseling and educational practice.


## Outcomes

- Students will demonstrate knowledge, skills, and personal awareness in the following core areas: human growth and development, foundations of faith-based counseling, group work, social and cultural foundations, the helping relationship, career and lifestyle development, appraisal, statistics, research and program evaluation, and professional orientation and ethics.
- Students will demonstrate knowledge and understanding of the Christian faith and an ability to analyze and evaluate counseling issues from that perspective.
- Students will demonstrate mastery of counseling knowledge, skills, and personal awareness in practicum and internship experiences and in a counseling specialization (marriage and family counseling, mental health counseling, or school counseling).
- Students in the Marriage and Family Counseling Program will demonstrate skills and knowledge so as to assess couple and family function and dysfunction; and join the respective relational system using interventions to create therapeutic change for the purpose of creating greater relational satisfaction within a framework of theoretical and ethical guidelines while being aware of social, cultural, sexual, and religious factors which impact the relational system in internship experiences.
- Students in the Mental Health Counseling Program will demonstrate basic mental health counseling skills and master of essential mental health knowledge in internship endeavors.
- Students in the School Counseling Program will demonstrate the knowledge and performance competencies to facilitate the academic, career, and social/emotional development of students through effective ethical application of counseling, consulting, coordinating, and appraising skills.
- Given the array of different personal skills and abilities possessed by diverse individuals, students will select and develop a personal style of practice, supervised experiences, and professional development.


## Program Description

The 60-credit Mental Health Counseling Program and the 60-credit Marriage and Family Counseling Program are designed in accordance with national counselor certification and state licensure standards and provide students with academic training necessary to become professional counselors. The 51 credit School Counseling Program additionally prepares students to be certified as elementary and/or secondary school counselors by the Pennsylvania Department of Education (PDE). All students receive exposure to core knowledge of the profession, which includes developmental theory, career development, assessment, research, ethics, multicultural awareness, counseling theory, and group work as well as training in the skills of helping. All students are required to participate in a 10 -hour group laboratory designed to train group facilitators. Each student receives intense individual and group clinical supervision during practicum and 600-900 hour internship. Recent graduates of the programs have found employment in a variety of work settings including schools, clinics, church counseling centers, and public and private agencies.

Application materials are available from the MA in Counseling Office (724-847-6697 or www.counseling @ geneva.edu). In addition to the completed application, prospective applicants are required to submit official transcripts from all colleges and universities attended, an essay focusing on academic and career goals, Miller Analogies Test (MAT) scores or Graduate Record Exam (GRE) General Test Scores, and three academic or employer recommendations from individuals not related to the applicant. Personal or phone interviews are conducted by MA in Counseling Program Manager. Prospective applicants are rated according to their academic background and aptitude, interpersonal skills, work-related experiences, and compatibility with program goals and perspectives. Provisional admissions status may be granted to students who meet most but not all criteria for full admission. Students applying to the MA in Counseling Program should be aware that, prior to the practicum and internship, they will be required to complete PA State Police, FBI records and PA child abuse checks to determine whether they have felony convictions or any record of child abuse perpetration.

Statistics Competency: Basic statistics competency is a prerequisite for CNS 505 (Testing and Appraisal) and CNS 512 (Research Methods and Program Evaluation), both of which are required courses for students in the MA Counseling Program. This competency can be met in one of three ways: (1) by successfully completing CNS 504 (Statistics) as a student in the MA Counseling Program, (2) by providing evidence of having earned a grade of B-or better in an approved undergraduate statistics class in the last 5 years, or (3) by earning a score of $80 \%$ or better in the final exam of Geneva's undergraduate psychological statistics class.

Student progress is evaluated throughout the program. Following the completion of 12-27 credits, each student must apply for degree candidacy. At the time of degree candidacy, each student's professional development, attitudes, academic achievement, written and verbal skills, adherence to ethical standards, personal maturity, relational skills, motivation, dependability, emotional stability, professional commitment, and fitness for the counseling profession are assessed. Following the completion of core courses and prior to beginning the internship, students are required to pass a nationally standardized counseling comprehensive examination. Students also are evaluated upon completion of the practicum and internship.

In accordance with the Geneva College Procedures for Administrative College-Initiated Withdrawal of Student, a student may be dismissed from the program if the student exhibits evidence of psychological, physical or behavioral problems that could disrupt the academic process or present a danger to the student or other members of the College community (students, faculty, administration, staff, or others). This would include individuals and potential counselees at a practicum or internship site.

According to Geneva College's Graduate Education Policy, "graduate students do receive academic credit for a grade of C but should be cautioned that C level work is not considered to be acceptable graduate work, that a 3.00 is required for graduation, and that students may not have more than two C's." In the MA in Counseling Programs, students must maintain a 3.0 Grade Point Average (GPA) to remain in good standing. Students whose GPA's fall below 3.0 will be placed on academic probation for a maximum of three semesters (fall, spring, summer) or until the GPA is raised to a 3.0 or higher. Students on academic probation must consult with their advisor to develop a written revised Plan of Studies aimed toward remediation. Students on academic probation will be evaluated by a faculty committee before probationary status is removed. Students on academic probation or with more than two "C" grades will not be permitted to take the Comprehensive Examination or schedule practicum/internship credits. Students may be on academic probation for no more than three semesters, after which they will be dismissed from the MA in Counseling Program if the GPA remains below a 3.0. Students with more than two "C's" must retake classes so that no more than two "C" grades remain on the final MA in Counseling transcript.

## Students in the Marriage and Family Counseling Program (60 credits) will complete:

CNS 504: Statistics ..... 3
CNS 505: Testing and Appraisal ..... 3
CNS 510: Foundations for Faith-Based Counseling ..... 3
CNS 512: Research Design and Program Evaluation ..... 3
CNS 514: Human Development ..... 3
CNS 520: Counseling Theory ..... 3
CNS 521: Counseling Skills ..... 3
CNS 533: Career and Lifestyle Counseling ..... 3
CNS 534: Social and Cultural Foundations of Counseling ..... 3
CNS 536: Group Counseling ..... 3
CNS 537 Professional Issues and Ethics in Marriage and Family Counseling ..... 3
CNS 575: Foundations of Marriage, Couple and Family Counseling ..... 3
CNS 577: Family Counseling/Therapy ..... 3
CNS 578: Marital and Couple Counseling/Therapy ..... 3
Three Electives ..... 9
CNS 581: Marriage and Family Counseling/Therapy Practicum ..... 3
CNS 582: Marriage and Family Counseling/Therapy Internship ..... 6
Students in the Mental Health Counseling Program ( 60 credits) will complete:
CNS 504: Statistics ..... 3
CNS 505: Testing and Appraisal ..... 3
CNS 510: Foundations for Faith-Based Counseling ..... 3
CNS 512: Research Design and Program Evaluation ..... 3
CNS 514: Human Development ..... 3
CNS 520: Counseling Theory ..... 3
CNS 521: Counseling Skills ..... 3
CNS 533: Career and Lifestyle Counseling ..... 3
CNS 534: Social and Cultural Foundations of Counseling ..... 3
CNS 536: Group Counseling ..... 3
CNS 538: Professional Issues and Ethics in Mental Health Counseling ..... 3
CNS 501: Psychopathology and Diagnosis ..... 3
CNS 541: Mental Health Counseling ..... 3
CNS 548: Psychopharmacology ..... 3
Three Electives ..... 9
CNS 586: Mental Health Counseling Practicum ..... 3
CNS 587: Mental Health Counseling Internship ..... 6
Students in the School Counseling program ( 51 credits) will complete:
CNS 504: Statistics ..... 3
CNS 505: Testing and Appraisal ..... 3
CNS 510: Foundations for Faith-Based Counseling ..... 3
CNS 512: Research Design and Program Evaluation ..... 3
CNS 514: Human Development ..... 3
CNS 520: Counseling Theory ..... 3
CNS 521: Counseling Skills ..... 3
CNS 533: Career and Lifestyle Counseling ..... 3
CNS 534: Social and Cultural Foundations of Counseling ..... 3
CNS 536: Group Counseling ..... 3
CNS 539: Professional Issues and Ethics in School Counseling ..... 3
CNS 502: Counseling Children and Adolescents ..... 3
CNS 563: Organization \& Management of School Counseling Programs ..... 3
CNS 564: Curriculum, Learning, Inclusion, and Instruction for School Counselors ..... 3
CNS 565: School Counseling Practicum ..... 3
CNS 566: Elementary School Counseling Internship ..... 3
CNS 567: Secondary School Counseling Internship ..... 3

## Course Descriptions

CNS 501 Psychopathology and Diagnosis (3) An exploration of understanding of mental illness. The study of the classification, etiology, and treatment of psychopathology and personality disorders. The course deals with the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM) categorization of criteria for specific diagnoses. Spring semester.

CNS 502 Counseling Children and Adolescents (3) Theory and practice of counseling children and adolescents. Characteristics of at-risk children and exceptional needs students and the provision of counseling services to these children. Topics include abnormal behavior, exceptionalities, death and dying, child abuse, drug and alcohol abuse, youth violence, teenage pregnancy, risky sexual behavior, disruptive behavior disorders, childhood depression, anxiety, and eating disorders. Fall semester.

CNS 504 Statistics (3) An introduction to descriptive and inferential statistics. Topics include descriptive statistics, bivariate distributions, sampling, estimations, and tests of hypotheses. Fall semester.

CNS 505 Testing and Appraisal (3) Introduction to psychometric/edumetric theory to include test item construction, reliability, validity, standardization, and decision-making. Introduction to commonly used assessment devices and procedures in various counseling arenas, such as intelligence tests, ability tests, achievement tests, screening tests, interest tests, and personality tests. Prerequisite: Statistics with a grade of 'B-' or better. Spring semester.

CNS 510 Foundations for Faith-Based Counseling (3) A study of basic concepts of evangelical and Reformed Christian theology with special emphasis on biblical anthropology and the way it informs and critiques various counseling theories. Fall semester.

CNS 512 Research Design and Program Evaluation (3) Course provides the student with the necessary skills to professionally evaluate the current research in the field of counseling. Topics include research strategies, scaling and coding, internal and external validity, and program evaluation. Prerequisite: Statistics with a grade of 'B-' or better. Summer semester.

CNS 514 Human Development (3) An exploration of major events in human development from conception through death. Developmental concepts that have universal application will be covered. Fall semester.

CNS 520 Counseling Theory (3) A comprehensive overview and integration of the major theoretical perspectives on the counseling process. An examination of the historical development of counseling theory, an exploration of affective, behavioral, and cognitive counseling theories, and the application of theoretical material to case studies. Foundational elements of the counseling process will be explored via academic activities and observation and critique of videotaped master therapist counseling sessions. Students will develop an initial personal theoretical orientation for counseling endeavors. Fall semester.

CNS 521 Counseling Skills (3) A comprehensive overview, integration, and application of major theories and techniques employed in the counseling process. Specific advanced counseling interventions by master counselors will be reviewed via videotape and critiqued. Initial counseling skills will be developed via in vivo role play and will be reviewed and critiqued by the instructor. Basic models and strategies of consultation will be explored from theoretical and pragmatic points of view, and applied to case material. Spring and Summer semester.

CNS 533 Career and Lifestyle Counseling (3) A survey of theory and practice of counseling associated with career selection, career development, relationships among career, life-style, and family, and relevant appraisal tools. Spring semester.

CNS 534 Social and Cultural Foundations of Counseling (3) Theories and techniques of effective multicultural counseling to include consideration and appreciation of cultural, racial, ethnic, disability, gender, and other diversity issues within a pluralistic society. Students will examine the role of the counselor in advocacy, conflict resolution, and cultural awareness. Spring semester.

CNS 536 Group Counseling (3) Elements of group dynamics, ethical issues special to group work, and group leadership skills. Students will compare four types of groups-task and work groups, psychoeducational groups, counseling groups, and psychotherapy groups. Various theoretical approaches to groups counseling as well as adaptations with specific populations and specific settings will be addressed. Includes a 10 -hour group laboratory experience. Fall semester.

CNS 537 Professional Issues and Ethics in Marriage and Family Counseling (3) A survey of professional identity, ethical standards, and legal codes for marriage and family counselors and therapists. Topics will include: 1) history and philosophy of the counseling profession; 2) knowledge of professional roles including consultation and group work; and 3) moral principles and virtues in counseling practice, training, supervision, and consultation. Spring semester. (This course is offered as a one-week intensive.)

CNS 538 Professional Issues and Ethics in Mental Health Counseling (3) A survey of professional identity, ethical standards, and legal codes for mental health counselors and therapists. Topics will include: 1) the history and philosophy of the counseling profession; 2) knowledge of professional roles including consultation and group work; and 3) moral principles and virtues in counseling practice, training, supervision, and consultation. Spring semester. (This course is offered as a one-week intensive.)

CNS 539 Professional Issues and Ethics in School Counseling (3) The course is a survey of professional identity, ethical standards, and legal codes for professional counselors with emphasis on elementary and secondary school counseling. Students are to demonstrate knowledge of and ability to apply, in decision-making situations, ACA and ASCA ethical standards, the Pennsylvania Code of Professional Practice and Conduct for Educations, and legal obligations and public policies that address institutional and social barriers that impede access, equity, and success of all counseling clients, particularly K-12 students. Spring semester. (This course is offered as a one-week intensive.)

CNS 541 Mental Health Counseling (3) Assumptions and roles of mental health counseling within the context of the community and its health and human service systems, including functions and relationships among interdisciplinary treatment teams, and the historical, organizational, legal, and fiscal dimensions of the public and private mental health care systems. Fall semester.

CNS 543 Advanced Counseling Techniques (3) This course is designed for advanced students to learn in depth the theory and practice of various individual counseling orientations as these counseling perspectives are applied with clients over time. The theoretical models addressed will be reviewed and critiqued for strengths, weaknesses and applicability to various client populations. The specific counseling theories covered will vary from semester to semester. Prerequisite: CNS 521.

CNS 545 Substance Abuse Counseling (3) This course provides a basic introduction to the assessment and counseling treatment of clients manifesting alcohol and substance abuse disorders. Theoretical formulations, etiological issues, presenting symptomatology, and courses of these disorders, and interventions models will be addressed. Spring semester.

CNS 548 Psychopharmacology (3) A review of the most commonly used drugs for psychological conditions, their effects and their side effects, and the methods of action. Particular attention is paid to the synaptic events relevant to drug actions. Summer semester.

CNS 563 Organization and Management of School Counseling Programs (3) The course covers the nature, development, and management of school counseling programs, and differences between elementary and secondary school contexts. Students will develop knowledge of concepts, skills, and issues necessary to function effectively as school counselors. Students will be able to assess, plan, and integrate the elements of a comprehensive program that reflects the programmatic and ethical standards of the American School Counselor Association, including structuring of essential services to foster personal, social, educational, and career development in students. Summer semester.

CNS 564 Curriculum, Learning, Inclusion, and Instruction for School Counselors (3) The course focuses on school counselors in K-12 settings as they work with students in contexts that include parents, administrators, and teachers. Students will be able to articulate the standards-driven nature of curriculum, learning theory, instructional practice, and inclusion and explain how they relate to each other and define the work of teachers. Students will learn to conceptualize their work as counselors: 1) in terms of development of a counseling curriculum; 2) as depending on learning principles being relevant to their success in working with students, parents, and teachers; 3 ) in the context of the principles and values on which inclusion is based; and 4) as an arena in which their work with students, teachers, administrators, parents, and other community agents is essentially instruction. Prerequisite: CNS 563 Organization and Management of School Counseling Programs. Fall semester.

CNS 565 School Counseling Practicum (3) The 100-hour experience places students in a professional setting in which they will develop counseling skills with school-aged children. Students in the course are required to have 40 hours of direct service contact with K-12 students through individual or group counseling. They also participate in $11 / 2$ hours of weekly group supervision with the Geneva practicum instructor and, in addition, receive an hour a week of additional supervision with the course instructor. Prerequisites: requires Acts 33 and 34 clearances, FBI clearances, a recent TB test, and proof of malpractice insurance. Fall semester.

CNS 566 Elementary School Counseling Internship (3) The internship is a field experience in which students apply knowledge and hone skills needed for successful practice as an elementary school counselor. This is a 300-hour internship under the supervision of an approved site supervisor who is a practicing elementary school counselor. Students are to demonstrate mastery-level performance in: 1) the essential services of counseling, consulting, coordinating, and appraising; 2) planning and implementation of classroom guidance activities; 3) professional conduct in interactions with field and college supervisors, students, teachers, administrators, and community members; and 4) such other activities defined as the responsibility of the school counselor at their elementary school placement. Supervision is for one hour weekly in the field and $11 / 2$ hours per week on campus. Prerequisites: requires Acts 33 and 34 clearances, FBI clearances, a recent TB test, proof of malpractice insurance, and a passing grade on the comprehensive exam. Spring semester.

CNS 567 Secondary School Counseling Internship (3) The internship is a field experience in which students apply knowledge and hone skills needed for successful practice as a secondary school counselor. This is a 300-hour internship under the supervision of an approved site supervisor who is a practicing secondary school counselor. Students are to demonstrate mastery-level performance in: 1) the essential services of counseling, consulting, coordinating, and appraising; 2) planning and implementation of classroom guidance activities; 3) professional conduct in interactions with field and college supervisors, students, teachers, administrators, and community members; and 4) such other activities defined as the responsibility of the school counselor at their secondary school placement. Supervision is for one hour weekly in the field and $11 / 2$ hours per week on campus. Prerequisites: requires Acts 33 and 34 clearances, FBI clearances, a recent TB test, proof of malpractice insurance, and a passing grade on the comprehensive exam. Spring semester.

CNS 575 Foundations of Marriage, Couple, and Family Counseling/Therapy (3) This course is designed to introduce students to the history, philosophy, etiological premises that define the practice of marriage and family counseling/therapy. The domain of professional ethics, the legal system, and professional organizations pertaining to the field will be presented. Professional issues will be presented as well as implications pertaining to social, cultural, diversity, and equity pertaining to couples and families. Students will articulate a foundation view of marriage, couple, and family counseling consistent with their own biblical worldview. Summer semester.

CNS 576 Contextual Dimensions: Marriage, Couples, and Family Counseling/Therapy (3) This course is designed to introduce students to couples and families as social and theological systems with an understanding of counseling/therapy through the development of the marital and family lifestyle. To be studied are: 1) the family lifestyle; 2) marital and family issues; 3) developmental stages; 4) healthy family functioning; 5) socioeconomic status; 6) religious belief systems; 7) cultural heritage; 8) family of origin; and 9) intergenerational influences. Focus will also contain a variety of treatment issues that couples and families face.

CNS 577 Family Counseling/Therapy (3) This course is designed for students to learn knowledge and skills for the practice of family therapy. Models of family therapy will be reviewed and critiqued in light of the Christian worldview of the student. Techniques, assessments, interventions, and strategies will be discussed and role-played to develop preventative approaches as well as resolving specific problems that impede family functioning. Fall semester.

CNS 578 Marital and Couple Counseling/Therapy (3) This course is designed for students to learn knowledge and skills for the practice of couple and marital therapy. Models of marital therapy will be reviewed and critiqued in light of the Christian worldview of the student. Techniques, assessments, interventions, and strategies will be discussed and role-played to develop preventive approaches as well as resolving specific problems that impede marital functioning. Fall semester.

CNS 579 Introduction to Play Therapy (3) This course will be an elective course open to any graduate counseling student, especially those enrolled in school counseling or who plan to work extensively with children after graduation. Summer semester.

CNS 581 Marriage and Family Counseling/Therapy Practicum (3) This course is a100-hour experience on and off campus under supervision of an experienced master's-level clinician. It includes 40 hours of direct service with couples or families; group supervision $11 / 2$ hours per week on campus; and one hour of additional faculty supervision per week. Development of clinical skills is a key focus of the practicum. Prerequisites: CNS 521 and CNS 536. Acts 33 and 34 clearances and proof of malpractice insurance. Fall Semester.

CNS 582 Marriage and Family Counseling/Therapy Internship ( 6 credits over two semesters) This course is a 600-hour experience off campus under supervision of an experienced master's-level clinician involving direct service with couples, families, or individuals with marital or family issues. Supervision is held for one hour weekly in the field and in group supervision for $11 / 2$ hours per week on campus. Students must be registered for this course while completing the internship. Prerequisites: Requires Acts 33 and 34 clearances, proof of malpractice insurance, and a passing grade on the comprehensive exam. Spring semester.

CNS 586 Mental Health Counseling Practicum (3) This course is a 100 hour experience which includes 40 hours of direct service with individuals and groups; group supervision $11 / 2$ hours per week on campus; and one hour of additional faculty supervision per week. Open only to students who have been admitted to the program as degree seeking students. Prerequisites: CNS 536 and CNS 521; requires Acts 33 and 34 clearances and proof of malpractice insurance. Fall semester.

CNS 587 Mental Health Counseling Internship ( 6 credits over two semesters) This course is a 600-hour experience off campus under supervision of an experienced master's-level clinician and includes direct counseling and service hours with individuals and groups. Supervision is held for one hour weekly in the field and in-group supervision $11 / 2$ hours per week on campus. Open only to students who have been admitted to degree candidacy and who have completed all other coursework. Students must be registered for this course when completing the internship as the internship may extend beyond one semester. Prerequisites: Requires Acts 33 and 34 clearances, proof of malpractice insurance, and a passing grade on the comprehensive exam. Spring semester.

## Master of Arts In Higher Education

## Mission and Outcomes

The mission of the Master's of Arts in Higher Education (MAHE) program is to cultivate a vision for higher education that is rooted in a Christian view of life, characterized by a consideration of foundational issues, and committed to the preparation of perceptive and principled leaders for colleges and universities.

Our sincere hope is that students who complete the MAHE program will have made substantial progress towards embracing the following educational outcomes:

- Articulate the relevance and application of a Christian view of life to the study and practice of higher education.
- Understand the contours of contemporary higher education within the contexts of its theological, philosophical, historical, and sociological foundations.
- Advocate and model a holistic approach to the person in higher education settings.
- Develop beliefs, attitudes, and skills that reflect a professional identity rooted in Christian vocation, with particular emphasis in student affairs and administration, educational leadership, college teaching, or campus ministry.
- Utilize research, writing, and presentation skills in the investigation of a specific topic within the field of higher education.


## Academic Information

The MAHE program comprises 36 credit hours. All students take the 27 -credit hours foundations core designed to ensure a broad grasp of the history and philosophy of higher education, clear insight into the nature of learning and the learner, and a thorough integration of learning and life-all in the context of a Christian perspective. Three elective courses ( 9 credit hours) also are required. These electives may be selected from courses in the four concentration areas: student affairs administration, educational leadership, campus ministry and college teaching. A concentration consists of two elective courses in a particular area and the completion of a final research project on a topic related to that area. Contextualized learning, an important facet of the program, is a requirement of participation with 600 hours of related field experience required during each student's tenure.

## Program Delivery

The MAHE program can be pursued in the following formats depending on a student's time and commitments:
In the accelerated program, students earn degrees by taking core classes once a week over a continuous 20-month period, beginning each September, at Geneva College. A one-week break follows each course and two longer breaks occur at the Christmas holidays and in the summer respectively. Students typically complete elective courses by enrolling in one of the institute programs. Most students in the accelerated program hold graduate assistantships at Geneva or at nearby colleges and universities.

Graduate assistantships are available to students enrolled in the accelerated program. The professional positions available for assistantships may include residence life, admissions, campus ministry, coaching, teaching, or student activities. Graduate assistantships normally are nine-month positions (usually renewable for the second year) and they include a onethird reduction in tuition as well as a monthly stipend.

The institutes program allows students to pursue a master's degree without having to leave their current positions. Institutes are offered in mid-June and early January. Students can take either one or two courses per week at the two-week summer institute. At winter institute, students can take one course offered in the first full week in January. Readings, assignments, and ongoing conversations are undertaken during the semester or semesters following each institute.

The institutes program is the ultimate in flexibility. Students who desire to finish the MAHE in three years may take four courses each year by attending both weeks of the summer institute (or a combination of summer and winter institutes). However, students who desire to take longer to complete the program may opt for two or three courses per year, utilizing any combination of the summer and winter institutes.

The self-directed studies program offers students the opportunity to design their pursuit of the MAHE in the most feasible way. That is, students interested in this format can simply choose courses whenever they are offered until they fulfill all of the program requirements, whether it takes two to three years or four to five years for them to do so.

| Foundations core (27 credit hours): | 3 |
| :--- | :--- |
| HED 501: Foundations of Learning and Knowledge | 3 |
| HED 502: Historical Foundations of Higher Education | 3 |
| HED 503: College Students in America | 3 |
| HED 504: Worldviews and Higher Education | 3 |
| HED 505: Vocation and Formation in Higher Education | 3 |
| HED 508: Sociological Foundations of Higher Education | 3 |
| HED 514: Great Issues in Higher Education | 3 |
| HED 515: Foundations of Educational Research | 3 |
| HED 517: Capstone in Higher Education |  |
|  |  |
| Concentrations: | 3 |
| Student Affairs | 3 |
| HED 511: Residence Life | 3 |
| HED 531: Diversity in Higher Education | 3 |
| Educational Leadership |  |
| HED 521: Administrative Leadership in Higher Education | 3 |
| HED 534: Assessment and Retention | 3 |
| College Teaching |  |
| HED 540: The Vocation of Teacher | 3 |
| HED 541: Principles of Effective Teaching | 3 |
| Campus Ministry |  |
| HED 551: Foundations of Campus Ministry | 3 |
| HED 552: Effective Methods of Campus Ministry |  |

## Foundations Core

HED 501 Foundations of Learning and Knowledge (3) This course explores the major philosophic systems that have functioned as foundations for western higher education, and investigates the interplay of theories of knowing and models of learning in the context of higher education. In either case, it pays special attention to the use of biblical categories to analyze and to direct the discussion toward the development of normative and practical alternatives for higher education.

HED 502 Historical Foundations of Higher Education (3) This course provides a general overview of the historical development of American colleges and universities, beginning with the colonial period and continuing through the current scene. The course will also explore the interplay of Christian faith with the historical development of American higher education.

HED 503 College Students in America (3) This course offers a comprehensive overview of American college students. More specifically, it provides a multifaceted profile of who is currently in college. The course also examines and critiques major human development theories that attempt to explain students' development. In this context, the course considers the feasibility of a Christian theory of students' development during the college years.

HED 504 Worldviews and Higher Education (3) This course defines the concept of worldview and develops it as an analytical tool for discerning various academic perspectives and theories and for uncovering the assumptions that shape academic and student cultures. Particular attention is given to analysis of the biblical-redemptive foundation of a Christian worldview. Several other worldviews relevant to a contemporary campus setting are also investigated utilizing literature, music, and movies to demonstrate the cultural fruits of worldviews.

HED 505 Vocation and Formation in Higher Education (3) This course examines the concepts of vocation, work, and faith commitment particularly as they take shape within the context of higher education. We will discuss biblical and theological perspectives on vocation and work in an effort to assess their merit and relevance for professional and personal life. In addition, we will consider the issue of leadership and its relationship to personal and professional development.

HED 508 Sociological Foundations of Higher Education (3) This course examines various contexts in which American higher education currently operates. We will explore macro contexts that focus on higher education systems and include issues such as classification taxonomies, institutional diversity, accountability, governance, and society's investment. We will also examine micro contexts that focus on colleges as organizations and include issues such as institutional missions and values, leadership, decision-making, and organizational change. Understanding larger and smaller contexts ostensibly offers significant insight into how to function more effectively in the academy.
HED 514 Great Issues in Higher Education (3) This course is designed to introduce students to some of the larger themes within the field of higher education. Students will explore several great books in American higher education that focus on broad topics such as the mission of higher education, student learning, curriculum, faculty, the history of higher education, and the academy writ large.

HED 515 Foundations of Educational Research (3) This course is intended to provide an introduction to various research design and methodology skills that are relevant to educational research. We will also examine the nature of the research process as well as the roles of researcher. Our hope is that students will become both more proficient and more accustomed to understanding, valuing, and interpreting educational research as well as designing, conducting, and presenting effective research.

HED 517 Capstone in Higher Education (3) As a capstone course, this course is intended to provide integration, cohesion, and summary to the entire course of study. We will revisit and reflect upon the foundational hopes of the program for student learning. Likewise, students will complete a culminating project that illustrates their interests, knowledge, and proficiencies within the field of higher education.

## Elective Courses

## Student Affairs Administration Concentration

HED 511 Residence Life (3) This course examines the development of residence life in American higher education. It will explore theoretical issues such as residence life as education, as well as more functional issues such as staffing and supervision, program development and assessment, architectural design, and addressing relevant personal and structural problems. The course emphasizes translating theoretical understanding into practical initiatives to enhance student learning.

HED 531 Diversity in Higher Education (3) This course will explore the complex issues facing university and college professionals when addressing diversity and multiculturalism. We will examine the development of dominant and
dominated cultures in the United States and how an increased understanding in these regards might shape how higher education professionals do their work. A Christian perspective will ground and shape the dialogue with special attention to how Christians have attempted to address issues of diversity in the past. Distinctions will be made between individual and institutional diversity challenges, and we will examine specific policies in various areas of the academy. Specific attention will be given to dialogue on issues of gender, class, race, and religious affiliation.

## Educational Leadership Concentration

HED 521 Administrative Leadership in Higher Education (3) Integrates recent and traditional literature on leadership in organizations in general and American higher education in particular. We will explore several metaphors for and theories of organizational life, with an eye towards understanding what may contribute to effective and rewarding work within colleges and universities. We will also examine the roles and practices that leaders fulfill as they [ad]minister within higher education settings. In all cases, we will attempt to evaluate ways in which a Christian perspective may provide understanding, critique, and direction to leadership in higher education.

HED 534 Assessment and Retention (3) This course examines the roles, theories and practices of assessment and retention in American higher education. We will introduce students to factors that contribute to effective assessment and retention practices, implementation strategies and models, and various resources that provide continuing information and insight. We will also evaluate ways in which a Christian perspective may provide understanding, critique, and direction to assessment and retention conversations.

## College Teaching Concentration

HED 540 The Vocation of Teacher (3) In this course, students examine various aspects of the college professorate in contemporary academe. Students will discuss and critique particular demographic descriptors of the academic profession and the numerous roles that faculty members fulfill. In addition, students will be challenged to bring Christian criteria to bear on the nature and expression of the academic calling.

HED 541 Principles of Effective Teaching (3) Teaching is a fundamental aspect of the college educational experience. The extent to which teachers fulfill their tasks well has a direct impact on student learning. This course provides an overview of the many issues that contribute to the notion of what may be called "good teaching," including what the Christian faith may have to offer to the discussion. More specifically, we will focus on classroom dynamics, the relevance of disciplinary differences to teaching styles, various pedagogical considerations, and course assessment issues.

## Campus Ministry Concentration

HED 551 Foundations of Campus Ministry (3) Preparing for a unique ministry to college students-whether in the context of a church ministry, a parachurch ministry, or an institutional chaplaincy-requires a clear definition of the mission of campus as well as clarity of calling for the persons who undertake it. More specifically, it is essential to develop a thoughtful hermeneutical approach that, in turn, may lead to mature theological insight and praxis. This course is concerned with such an effort and will address the following topics to that end: defining the mission of campus ministry; exploring the contours of calling to campus ministry; examining biblical hermeneutics in the context of campus ministry; developing essentials in biblical theology; and identifying effective philosophical and cultural apologetics strategies.

HED 552 Effective Methods of Campus Ministry (3) Much of effective campus ministry revolves around the utilization of essential skills. Identifying those skills, analyzing them, and developing a plan for increasing expertise in them are all part of the process of maturing in campus ministry, as well as becoming a leader with others who seek to do likewise. This course will adopt a "best practices in campus ministry" approach to assist students in these pursuits. Particular topics to be addressed include: interpersonal skills; evangelism; small group facilitation; strategic planning (programming strategies); and leadership development (discipleship).

## Master of Business Administration

Nationally accredited by the Association of Collegiate Business Schools and Programs

## Mission

The mission of the Master of Business Administration (MBA) program is to prepare men and women for leadership by providing learning experiences which consider business principles within our faith context. We believe that business is a calling of God, and that there is an ever-increasing need for managers acting in biblically sound ways. There is an understanding that such a program cannot reduce the rigor and content of a management program, since we must strive for excellence in all that we do. In light of this mission, the curriculum and instruction focuses on the belief that the business
vocation is inseparably coupled with one's faith and core beliefs. This program will provide the unique opportunity for men and women committed to Jesus Christ and seeking the advancement of His Kingdom to gain knowledge and skills for the effective accomplishment of that goal.

## Program Outcomes

The Master of Business Administration program provides students with the learning platform to develop the essential knowledge, skills and competencies to be competent business practitioners through conceptual and application-oriented learning. Additionally, the program equips students with the ability to articulate and integrate the pervasive and critical elements of sound Biblical and ethical principles and a contemporary global business perspective into managerial decisionmaking.

## Program Description

The MBA program courses are offered in five 9-week terms each calendar year. Classes are offered on Monday, Tuesday, Wednesday and Thursday evenings. Classes typically begin at 6:00 p.m. and end at 10:00 p.m. The goal of this format is to allow working adults an opportunity to attend classes one night each week and complete the 36 -hour program in approximately two and one half years. The program scheduling also allows students to finish in one year if they take more than one course per term. Students who are required to take the three leveling classes will be able to complete the program in approximately three years if they take courses one at a time.

## Pre-enrollment Courses (9 Credit Hours)

Pre-enrollment courses may be required for students without a bachelor's degree in business administration. Students lacking the Common Professional Component of business study (as defined by the ACBSP) will be required to satisfy the component content prior to receiving regular status in the MBA program. There are three courses that will cover the professional core ( 3 courses of 3 credit hours each). These courses are as follows:

- BUS 341 Development of Information Systems I (3) Analysis of business, industrial and institutional organizations from the viewpoint of computer applications. Data processing, hardware configurations, peripheral devices; analysis of systems; development of computer implemented systems.
- BUS 485 Legal Environment and Management (3) Legal issues and business law; management, design, and performance of human resource systems to secure competitive advantage; management functions of planning, organizing, leading and controlling.
- BUS 486 Marketing and Ethics (3) Examines the exchange relationship and behavior of consumers; ethical issues of marketing and resource utilization; ethical approaches to business operations, with emphasis on Biblical management.


## Core requirements (30)

BUS 505: Corporate Finance 3
BUS 510: Financial Management 3
BUS 515: Financial and Managerial Accounting 3
BUS 520: Management Thought and Application 3
BUS 530: Management Information Systems/Decision Support Systems 3
BUS 540: Marketing Management 3
BUS 550: Human Resource Systems/Organizational Behavior 3
BUS 560: Biblical Management and Ethics 3
BUS 570: Managerial Economics 3
BUS 590: Strategic Business Policy 3
Electives courses
BUS 580: Research Methodology 3
BUS 591: Special Topics 3

## Course Descriptions ( $\mathbf{3 0}$ credit hours)

Core courses differ from courses in the undergraduate program in that the graduate program will significantly focus on the managerial perspective rather than an introduction to the principles of the different business functions. As such, the core courses will build on the information provided by the undergraduate courses. This managerial perspective will be aimed at ensuring that students are able to think critically, analyze situations, and apply sound business techniques, knowledge and

Biblical wisdom. Comparative analysis will go beyond standard financial analysis, seeking to evaluate the effect of emphasis upon self and power often found in contemporary organizations relative to a biblical perspective on human behavior, character, and appreciation of diversity, valuing all of God's creation.

There are 10 courses that comprise the core knowledge portion of the master of business administration program. These courses expand upon the common professional component of the field as required by the ACBSP.

## Core Courses

BUS 505 Corporate Finance (3) The study of key financial concepts including capital budgeting, cost of capital, risk, and return, cash flow analysis, and an understanding of financial statements.

BUS 510 Financial Management (3) Examines the nature and significance of managing the finances of the firm; biblical financial principles; significance of financial ratios and interpretation of financial statement items for managerial decision making, ethical issues regarding financial decisions. Prerequisite: BUS 505 or permission of the instructor.

BUS 515 Financial and Managerial Accounting (3) The study of accounting for the manager; emphasis on financial reporting, financial performance evaluation, ethical issues, and cost accounting. Prerequisite: BUS 505 or permission of the instructor.

BUS 520 Management Thought and Application (3) This course examines the history of management thought, a biblical perspective on management, and contemporary application. Examines the factors that influence individual work performance, organizational effectiveness and applied techniques for improving organizational performance. Prerequisite: BUS 485 or undergraduate equivalent.

BUS 530 Management Information Systems/Decision Support Systems (3) The integration and application of computing resources by the firm to aid strategic and ethical decision making and competitiveness; principles of managing production and operation of facilities and automated decision making technologies. Prerequisite: BUS 341 or undergraduate equivalent.

BUS 540 Marketing Management (3) Examines the marketing mix and its role to strategically position the firm; course uses a consumer product-based simulation to practice management decision-making and competitive behavior. Prerequisite: BUS 486 or undergraduate equivalent.

BUS 550 Human Resource Systems/Organizational Behavior (3) The design and implementation of strategic human resource systems from a general management perspective. Content includes organizational assessment, biblical integration of HR systems, development of HR strategy, organizational theory, legal compliance, contemporary trends, HR issues, and the relationship of HR systems to organizational performance. Prerequisite: BUS 485 or undergraduate equivalent.

BUS 560 Biblical Management and Ethics (3) Within the context of Scripture, principles are identified, discussed, and applied to business problems and situations including businesses' obligations to society and individuals' responsibility to organizations. Prerequisite: BUS 486 or undergraduate equivalent.

BUS 570 Managerial Economics (3) Economic issues and economic analysis as applied to managerial decision-making. Evaluating the impact of international trade theory, taxation, and resource allocation upon the business organization.

BUS 590 Strategic Business Policy (3) Strategic management and business policy issues facing the general manager; a comprehensive application of the various managerial applications derived from the core classes. Cultivation and utilization of skills in analysis, diagnosis, and development. Prerequisite: This course may only be taken after the completion of 21 credit hours of MBA courses including BUS 510, BUS 515, and BUS 540, or with the permission of the MBA program coordinator.

## Elective Courses

BUS 580 Research Methodology (3) Utilization of research tools and quantitative techniques used in business with application to current policy and decision-making. Multivariate statistics and quantitative analysis tools will be applied.

BUS 591 Special Topics (3) Elective courses will be offered during the various academic terms based on the needs of students and on faculty availability. Topics may include employment law, international business, investments, legal issues in business, and total quality management.

## Master of Education in Reading

## MEd and Certification Programs

## Mission Statement

The mission of the Department of Education of Geneva College is to prepare competent professional teachers committed to excellence and integrity in a) teaching; b) addressing student needs; c) continuing professional development; d) collaborating with colleagues, parents, and community members; and e) identifying and analyzing educational issues from a Christian perspective.

## Program Outcomes

1) The graduate student understands the concepts and strategies in reading and language arts needed to provide K-12 students effective instruction as well as a supportive instructional environment.
2) The graduate student understands philosophies, learning theories, and research methods as they apply to reading and language arts.
3) The graduate student uses appropriate assessment, learning, and reporting strategies in the K-12 classroom to foster student learning in literacy.
4) The graduate student develops reflective professional practices based upon current research, and collaborates with other professionals and parents to improve opportunities for student learning.
5) The graduate student analyzes educational issues, resources, values, and perspectives within a Christian framework.

## Program Description

Our Master of Education in Reading program provides the graduate or certification student with the concepts, methods, skills, and background in reading and language arts needed to provide $\mathrm{K}-12$ students and adults effective instruction as well as a supportive instructional environment. It will prepare reading specialists to work in the K-12 classroom, Title One Reading, reading centers, and adult literacy programs in order to foster learning in and through literacy.

At Geneva, Reading Specialist Candidates will have opportunities to apply their developing knowledge in the educational community. Through two field experiences, each student will spend more than 100 hours working alongside professionals to better understand the role of a reading specialist in collaborating with other educators and serving the needs of students and their families. Each practicum will require candidates to demonstrate their knowledge and competence in fostering student learning. Under the supervision of Geneva faculty and a cooperating teacher, each student will face real-life situations and come away with a better understanding of the applications of literacy throughout their school, non-profit, or other educational agency.

There are two options within the graduate program in reading. Students may opt for certification only by taking 24 credits in reading and assessment courses, or they may earn a master's degree and certification by taking the 24 credits in the major plus 12 core requirement credits.

Note: All coursework must be completed within 7 years of enrollment.

## Courses Required for Certification (24)

EDU 530: History and Philosophy of Reading 3
EDU 531: Theory and Practice of Reading/Language Arts 3
EDU 532: Phonics and Orthography of English Language 3
EDU 533: Reading Curriculum, Assessment, and Standards 3
EDU 534: Instruction and Assessment of Reading Difficulty 3
EDU 535: Role of Reading Specialist 3
EDU 536: Literature for Children and Adolescents 3
EDU 537: Practicum: Instruction and Assessment of Reading Difficulty 3

## Core Requirements for Masters (12)

EDU 502: Advanced Studies in the Foundations of Education 3
EDU 503: Applied Research in Education 3
EDU 505: Advanced Theories and Principles of Learning 3
EDU 591: Special Topics 3

## Course Descriptions

EDU 530 History and Philosophy of Reading (3) Addresses the history and philosophical bases of reading research, theory, and instruction. Explores literacy at all levels, including the interrelationship of the language arts, the role of metacognition, sociocultural influences, and the reading process as meaning construction. Students will develop their own philosophies of teaching reading. Every Fall.

EDU 531 Theory and Practice of Reading/Language Arts (3) Focuses on current theory and instructional practices in developmental reading and language arts from emergent literacy through high school. Causes and characteristics of reading difficulties will be addressed including the role of phonemic, morphemic, semantic, syntactic, and pragmatic systems of language. Every Spring.

EDU 532 Phonics and Orthography of English Language (3) Principles of phonology, phonics, and spelling patterns as aids to word identification will be addressed including current research on different phonics approaches in reading and spelling instruction. Every Summer.

EDU 533 Reading Curriculum, Assessment, and Standards (3) Trends in curriculum planning, assessment, and standards will be examined as they apply to the alignment of standards and the teaching of reading. Included will be the evaluation and selection of curriculum, criterion-referenced and norm-referenced tests, informal assessments, and technological resources. Every Fall.

EDU 534 Instruction and Assessment of Reading Difficulty (3) Principles of assessing children with reading difficulties and strategies for intervention will be examined. Every Summer. Prerequisites: EDU 530, EDU 531, EDU 532, and EDU 533. Cross-listed with EDU 574.

EDU 535 Role of Reading Specialist (1-3) An independent practicum in which the student interns with a reading specialist for 60 hours, to foster the professional competencies necessary for a reading specialist in the school and community. This will include experiences with planning IEP's (Individual Educational Plans), keeping records, collaborating with other professionals, and communicating with parents and students. Every semester and summer.

EDU 536 Literature for Children and Adolescents (3) Various genres of classical and contemporary children's literature will be discussed with emphasis on instructional strategies useful in the classroom. This includes the use of trade books to increase motivation and growth in reading and writing. Spring semester.

EDU 537 Practicum: Instruction and Assessment of Reading Difficulty (3) A supervised practicum that focuses on application of assessment and intervention strategies with children who have reading difficulties. Every Summer.

EDU 502 Advanced Studies in the Foundations of Education (3) This course reviews historical, sociological, and philosophical factors as related to events and problems of present-day America. The course will also review the research related to the foundations of the American public, private, and home school. Finally, this course will also honor Christ, as it will be taught from a Biblical-based Christian worldview. Every Summer.

EDU 503 Applied Research in Education (3) Designed to enable students to be professionally conversant with research design and analysis and to allow them to apply their knowledge of research design to investigate a suitable topic of interest. Students will apply the skills in research to investigate the foundations of research in light of the Sovereignty of God and from a Biblical perspective. Every Fall.

EDU 505 Advanced Theories and Principles of Learning (3) This course covers the theories and principles of learning, surveys theory and research in learning, and examines the application of principles of learning to contemporary settings. Every Spring.

EDU 591 Special Topics (1-3) Elective credits must total three (3) credits. Students may choose from the following possible courses. These are just a sample of possible courses. Spring and Summer. Grant Writing
Language Acquisition and Communication Disorders
Teaching English as a Second Language
Literature of Minorities
Sign Language
Questioning Strategies

## Master of Education in Special Education

## MEd and Certification Programs

## Mission Statement

The mission of the Department of Education of Geneva College is to prepare competent professional teachers committed to excellence and integrity in a) teaching; b) addressing student needs; c) continuing professional development; d) collaborating with colleagues, parents, and community members; and e) identifying and analyzing educational issues from a Christian perspective.

## Program Outcomes

1) The graduate student understands the discipline of special education and related content, plans meaningful instruction to meet the diverse needs of the students and the curriculum, and continually assesses to evaluate learner growth.
2) The graduate student knows and applies theories of learning and development to create a learning environment that will accommodate a diverse student population.
3) The graduate student understands and uses appropriate instructional strategies and effective communication supported by technology to foster critical thinking and collaboration in the classroom.
4) The graduate student develops reflective professional practices based upon current educational research to improve opportunities for student learning.
5) The graduate student identifies and analyzes educational processes and issues from a Christian perspective.

## Program Description

Geneva College's Master of Education in Special Education is designed to prepare current teachers with supplemental skills in working with students diagnosed with mental and physical disabilities. Teachers will be prepared to work with students who are mentally retarded, brain injured, physically handicapped, learning disabled, and socially and/or emotionally disturbed. The curriculum assures that graduates of this program will develop the enhanced skills and knowledge required to successfully instruct disabled students while meeting certification requirements for public and private schools in this state and the nation. The program will allow area teachers to develop the skills needed to be more effective in educating all students, especially those who are diverse and with special needs. These experiences provide graduate students with immediate opportunities to apply in their own classrooms the knowledge and skills that they acquire in the classroom components of the courses at Geneva.

The overall goal of the Geneva College Master of Education in Special Education Program is to provide in-service teachers and prospective in-service teachers with the methods, skills, and techniques needed to ensure K-12 students with special needs receive an appropriate education. The courses will expand these graduate students' knowledge base in current educational research, theory, methods, and practice. The master's program will lead to Pennsylvania Certification in the area of "Mentally and/or Physically Handicapped."

Courses are offered in the evenings during the school year and either in the day or the evening in the summer. The courses may be taken in any order, with the exception of the practicum, which may only be taken after the successful completion of all of the courses for certification (EDU 570-576) or with the approval of the program director.

There are two options within the graduate program in special education. Students may opt for certification only by taking 24 credits of special education courses, or they may earn a master's degree and certification by taking the 24 credits in the major plus 12 core requirement credits. Courses for certification could be counted toward the Master of Education degree should you wish to take the remaining classes at a later date. All coursework for the master's degree must be completed within 7 years of initial enrollment in the program.

## Courses Required for Certification (24)

EDU 570: Advanced Studies in Exceptional Children ..... 3
EDU 571: Assessment of Exceptional Children ..... 3
EDU 572: Academic Skill Intervention for Exceptional Children ..... 3
EDU 573: Behavioral Skill Intervention for Exceptional Children ..... 3
EDU 574: Reading Intervention for Exceptional Children ..... 3
EDU 575: The Role and Function of the Special Education Teacher ..... 3
EDU 576: Advanced Studies of Severe Disabilities ..... 3
EDU 592: Special Education Practicum ..... 3

## Core requirements for Masters (12)

EDU 502: Advanced Studies in the Foundations of Education ..... 3
EDU 503: Applied Research in Education ..... 3
EDU 505: Advanced Theories and Principles of Learning ..... 3
EDU 591: Special Topics ..... 1-3

## Course Descriptions

EDU 502 Advanced Studies in the Foundations of Education (3) This course reviews historical, sociological, and philosophical factors as related to events and problems of present-day American education. The course will also review the research related to the foundations of the America public, private, and home school movements. Summer term.

EDU 503 Applied Research in Education (3) The design of this course will enable graduate students to understand research literature, to provide written evaluations of research documents, and design and author a research project that could be carried out throughout the path of their academic career. The goals of this class are to develop critical thinking and writing skills required of graduate level study and professional practice, and to develop an understanding of the dynamic research process as it relates to professional practice. Fall semester.

EDU 505 Advanced Theories and Principles of Learning (3) This course covers the theories and principles of learning, surveys theory and research in learning, and examines the application of principles of learning to contemporary settings. Spring semester.

EDU 570 Advanced Studies in Exceptional Children (3) This course outlines the historical development of special education. It also details special education law, state special education requirements, the identification and eligibility process, ethical issues, and other foundational issues related to the field of special education. It provides a detailed understanding of federal and state special ed legal forms, such as the IEP. Students will also have the opportunity to review and engage in research related to individuals with disabilities. Summer term.

EDU 571 Assessment of Exceptional Children (3) This course prepares students to assess individuals with physical and/or mental disabilities both at the elementary and secondary level. Students will emerge from this course with a knowledge and understanding of the assessments that are given by licensed personnel to identify students with physical and mental disabilities and demonstrate the ability to administer a variety of standardized achievement and diagnostic instruments. Students will also have the opportunity to review and engage in research related to the assessment of children with disabilities. Fall semester.

EDU 572 Academic Skill Intervention for Exceptional Children (3) This course prepares graduate students in special education to develop and implement special education and inclusive academic programs for the physically and/or mentally disabled student. Proven methods, strategies, and techniques will be discussed along with the required planning behind the use of such methods, strategies and techniques. Students will also have the opportunity to review and engage in research related to the use of effective instructional methods and techniques for children with disabilities. Fall semester.

EDU 573 Behavioral Skill Intervention for Exceptional Children (3) This course prepares graduate students to develop and implement behavioral interventions with students who are behaviorally, emotionally, physically, and/or mentally disabled. Behavioral management, behavioral modification techniques, therapeutic crisis intervention, behavioral avoidance skills and other methods will be emphasized to prepare Geneva graduate students to prevent and deal with problem behaviors with skill and confidence. Students will also have the opportunity to review and engage in research related to the use of effective behavioral management methods and techniques for children with disabilities. Spring semester.

EDU 574 Reading Intervention for Exceptional Children (3) This course teaches the theory and skills necessary for success in teaching reading to exceptional students. A wide variety of research on proven methods and techniques in teaching reading to exceptional students will be covered in this course. Students will also have the opportunity to review and engage in research related to the use of effective reading methods and techniques for teaching children with disabilities to read. Spring semester. Cross-listed with EDU 534.

EDU 575 The Role and Function of the Special Education Teacher (3) This course brings together the knowledge and skills covered in previous courses to prepare prospective special educators to be effective in the day-to-day operations of directing a special education program whether serving in a resource, self-contained, itinerant, consultation, or inclusive classroom in either an elementary, middle school, or secondary environment. This course also addresses current relevant issues in special education. Summer term.

EDU 576 Advanced Studies of Severe Disabilities (3) This course broadens student understanding of individuals with severe disabilities including assessment, appropriate interventions, medical issues, and placement. Students study the educational processes of individuals with severe disabilities. This course provides an understanding of curriculum development, methods, materials, and special training techniques as applied in various settings. Special emphasis is given to the vocational and self-help needs of this population. Spring semester.

EDU 591 Special Topics (1-3) Elective credits must total three (3) credits. Students may choose from the following possible options: Elective credits are offered throughout the year.

Grant Writing
Gender in Education
Language Acquisition and Communication Disorders
Teaching English as a Second Language
Literature of Minorities
Sign Language
EDU 592 Special Education Practicum (3) An independent practicum in which the student engages in supervised professional activities in selected cooperating community agencies, local education agencies, and/or intermediate units to foster the necessary professional competencies. Students will maintain a portfolio to document achievement of required PA competencies for certification. Students will complete and document 60 hours of practicum time. Every semester.

## Master of Science in Cardiovascular Science

## Mission

The Master of Science in Cardiovascular Science will provide comprehensive training in the clinical areas of Invasive Cardiology and Electrophysiology. This will produce broadly trained cardiac health professionals who have a well integrated understanding of the cardiovascular system. Graduates of the program will provide a high level of assistance and expertise to laboratory cardiologists in a variety of hospital settings. The educational process will be committed to training and educating competent servant leaders who embrace cardiovascular technology to provide safe, quality, and compassionate patient care.

## Program Outcomes

## Overall goal

To prepare excellent professionals in the cognitive (knowledge), psychomotor (skills) and affective (behavioral) learning domains for the practice of invasive cardiology and electrophysiology in the allied health field of cardiovascular technology.

## Curricular Outcomes

The student will exhibit competent general knowledge required for the practice of invasive cardiology and electrophysiology.
The student will demonstrate a high level of clinical skill in the areas of invasive cardiology and electrophysiology. The student will demonstrate appropriate and professional behavioral skills in the health care setting.
The student will seek to become professionally involved.

## Program Description

The MS program will consist of six semesters of clinical and didactic instruction.
The first year of study will cover the foundations of invasive cardiology and consists of didactic and clinical exposure to diagnostic and interventional cardiac catheterizations. The first year will be divided into three semesters. Clinical rotations occur in the second and third semesters.

The second year of study also consists of three semesters and covers electrophysiology procedures including diagnostic and interventional techniques. Other courses cover health care management, statistics, and ethics and as well clinical expertise in electrophysiology techniques and practices. Students will also complete a clinical research project during their second year.

## Course Descriptions

CVS 505 Introduction to the Medical Environment (1) Orientation to the hospital, medical terminology, medical library, medical records, basis of medical ethics.

CVS 510, 511, 512 Cardiovascular Anatomy and Physiology I,II, III (3,3,3) Emphasis on normal and pathological coronary anatomy, ventricular function and congenital heart disease. The student will be able to distinguish various pathologic conditions and understand the effect on the cardiovascular system. The student will be able to collaborate with other health care professionals and integrate this knowledge to patient care.

CVS 515 Monitoring Instrumentation and Techniques (2) Basic electronics and physics of monitoring systems, pressure transducers, fluid dynamics. Catheter insertion techniques, hemodynamic profiles.

CVS 520, 521 Cardiac Catheterization Laboratory: Practices and Procedures I,II $(3,3)$ Principles of x-ray imaging, radiation safety, catheterization techniques and equipment., hemodynamic calculations. The student will develop skills to integrate this knowledge to the clinical rotations and care of patients.

CVS 525 Gas Exchange and Fluid Balance (3) An integrated look at the lung and kidneys in pH homeostasis, electrolyte balance and gas transport. The student will be able to review clinical laboratory information and analyze the status of a patient and understand the implications of the data.

CVS 530 Electrophysiology and Electrocardiography (2) Emphasis on arrhythmias and infarction patterns. The student will become familiar with brady and tachy arrhythmias as well as myocardial infarction interpretation.

CVS 535, 536 Clinical Laboratory Information and Instrumentation I, II $(1,1)$ Statistical and quality control methods, interpretation of medical literature, blood gas, electrolyte and coagulation measurement in the cardiac cath. Lab. The student will learn to integrate these quality control and clinical laboratory methods within the clinical practice.

CVS 550, 551 Cardiovascular Pharmacology I, II $(1,1)$ Principles of administration and hemodynamic and electrophysiologic effects of cardiovascular drugs and other medications. This seminar will cover the relationship of pharmacology to caring for patients and allow the student to apply safe methods of medication administration.

CVS 555 Basic and Advanced Cardiac Life Support (1) Preparation for certification by the American Heart Association for Basic Life Support and Advanced Cardiac Life Support. At the end of this course the student will be able to assess and treat various adult life support conditions. The student will take the nationally recognized AHA courses to complete the course successfully.

CVS 532 Medical and Surgical Treatment of Cardiac Disease (2) Overview of therapeutic measures for treatment of cardiac disease.

CVS 540 Clinical Practice Applications (1) Practical introduction to products and equipment for cardiac catheterization procedures. Hands-on practice to assist development of basic clinical skills. HIPAA and infection control presentations.

CVS 541 Clinical Practice (8)
CVS 542 Clinical Practice (12)
Clinicals Cardiac Catheterization Monitoring Practice
Cardiac Catheterization Scrub Practice
Cardiac Catherization Circulate Practice
Rotating clinical practice under the guidance of preceptors. Clinical skills are learned by observation and practice. Students are exposed to a variety of procedures and expected to function independently once skill sets are developed. Clinical skills sets are supported by academic instruction.

CVS 610 Cardiac Pacing and Defibrillation Techniques (3) To gain better understanding of cardiac electrophysiology. The class will incorporate basic science addressing molecular and structural causes of arrhythmias. The student will develop an appreciation for the complexity of diagnosing a patient with arrhythmia symptoms.

CVS 613 Mechanisms, Diagnosis and Management (3) The detailed anatomy and physiology of the cardiac conducting systems which provide a foundation for the understanding of common pathologies.

CVS 615 Electrophysiology Laboratory: Practices and Procedures (3) To systematically understand the stages of electrophysiology procedures and equipment. To understand the arrhythmic substrate, arrhythmia induction, techniques of differential diagnosis, and application of mapping and ablative techniques.

CVS 640, 641,642 EP Clinical Rotations $(8,8,12)$ Rotating clinical practice under the guidance of preceptors. Clinical skills are learned by observation and practice. Students are exposed to a variety of procedures and expected to function independently once skill sets are developed. Clinical skills sets are supported by academic instruction.

CVS 620 Advanced Electrophysiology Technology (3) Continuous new developments in cardiac resynchronization therapy require the clinician to be knowledgeable related to technologies and modalities of implantable devices. This class will help the student develop a more extensive knowledge of implantable devices.

CVS 622 Epidemiology and Biostatistics (3) The ability to understand the conceptual and practical aspects of biostatistics and epidemiology in health care is critical in understanding research and analyzing population data about disease. This survey course will improve the ability of the student to understand and apply these concepts.

CVS 624 Financial Implications in Healthcare (3) This course will discuss various principles in accounting, interest, and methods for valuation, cost ratio benefits analysis, Performa development, and business development. This course will discuss healthcare reimbursement, revenue streams, and capitation.

CVS 626 Principles of Health Care Management (3) This course will discuss the various principles of management and associated issues as they relate to the modern health care professional. The course will explore topics such as concepts of organizational management, decision making, strategic planning, SWOT analysis, resource management and allocation, conflict, and the concept of power.

CVS 630 Cardiac Pacing, ICD, Ablation, Technology Seminar (2) To develop understanding and perspective related to treating cardiac arrhythmias. This class will help the student synthesize the information related to therapy modalities and indications for those therapies. Emphasis will be on the appropriate use of technologies. These technologies will be intertwined with various therapies for treatment of cardiac arrhythmias, and the student will develop a holistic view of patient care within these parameters.

CVS 650 Ethical Issues in Health Care (3) The student will examine the ethical issues that confront healthcare providers and patients. The medical, scientific, moral, and socioeconomic bases of these issues and the decision making processes that providers and patients engage in are analyzed. Topics will include informed and voluntary consent, the role of institutional review boards, euthanasia, and the allocation of scarce resources.

CVS 690 Research Project (3) The student will collaboratively select a project or develop original research that addresses current trends in cardiovascular and electrophysiology technologies. This project may be a literature review or original research. The student will develop critical analysis techniques to evaluate research by using scientific models. The student will learn about advantages and disadvanatages of quantitative and qualitative research methods. The project will then be presented in writing and oral presentation.

Geneva College

## Master of Science in Organizational Leadership

## Program Description

The Geneva College Master of Science in Organizational Leadership (MSOL) program is a pedagogically innovative graduate program that provides a practical blend of theory and field-based application. This program is housed in the department of leadership studies.
At the core of the MSOL program is the belief that the concept of leadership must be reconceptualized and applied in unique and innovative ways in order to meet the requirements of today's rapidly changing and complex organizations. This approach is interdisciplinary in nature, drawing upon the social sciences and organizational studies to develop the program's theoretical framework. In addition, the content flows directly out of Geneva's mission statement that is centered on developing servant-leaders. By delivering a biblically based program focusing on this concept, students have the potential to impact leadership in a variety of organizations throughout the region.

The MSOL program is designed to meet the unique academic and professional needs of working adults. This concept of adult education utilizes a cohort model in which 12 to 17 students begin the program together and take each course as a group according to the curriculum outline that is described in this catalog. Students can complete their master's degree in two years, meeting one night each week at convenient class locations throughout the greater Pittsburgh area.

## Vision of the Department of Leadership Studies (DLS)

Transformed lives ready to serve organizations as servant leaders.

## Mission of the DLS

To provide working adults the opportunity to become more effective leaders through faith-based leadership education, practice, and service.

## Program Explanation

The MSOL curriculum is interdisciplinary and biblically integrated in nature, and is delivered using a cohort structure at various locations within the Greater Pittsburgh area. In each cohort, faculty and students create an interactive learning community in which participants utilize theory to inform practice and practice to inform theory. As a result, students construct their own integrated model of organizational leadership, the capstone of the MSOL curriculum. Importantly, the MSOL Program is an implementation of Geneva's mission statement, in particular, the goal to "educate and minister to a diverse community of students for the purpose of developing servant-leaders, transforming society for the Kingdom of Christ."

## Program Outcomes

Graduates of the Master's of Science in Organizational Leadership degree will be equipped to assume leadership roles in organizations. To do so, our graduates will:

1. Develop a critical understanding of organizational leadership principles and concepts.
2. Apply organizational leadership principles and concepts in leadership roles.
3. Verbalize personal and professional development changes.
4. Identify biblical principles of leadership.

## Program Highlights

The structure and delivery of the curriculum for the MSOL program is based on an innovative model of adult education emphasizing the following components:

- Two-year accelerated program
- Four-hour class sessions meeting one evening per week
- 12 to 17 adults per group or cohort who remain together and take the same classes in sequence for the entire program
- A facilitative, interactive classroom learning environment, drawing on the experience and knowledge of students and emphasizing the field-application of leadership and organizational theory
- Qualified, experienced, and caring faculty committed to supporting students towards the successful completion of the MSOL program; 80 percent have earned doctorates
- Textbooks and instructional material delivered to the classroom
- Only one registration
- Full-time student status allowing qualified students to apply for financial aid loan programs.
- Several tuition payment plans
- Each cohort is assigned a faculty member as a mentor to follow the cohort and each student through the entire program


## Curriculum

36 credit hour total

## Term I-12 Credits Total

MOL 505: The History and Theory of Leadership 3
MOL 510: Leadership and Communication 3
MOL 550: Professional Development 3
MOL 515: Leadership and Ethics 3
Term II-12 Credits Total
MOL 525: Leadership and Motivation 3
MOL 520: Research Methods 3
MOL 535: Leadership and Decision Making 3
MOL 540: Principles of Organizational Finance 3
Term III-12 Credits Total
MOL 530 Leadership and Organizational Change 3
MOL 545: Leadership and Strategy 3
MOL 555: Integrated Leadership Project 6

## Course Descriptions

MOL 505 The History and Theory of Leadership (3) In this survey course, students explore both historical and contemporary leadership theories and models. Particular emphasis is placed on evaluating leadership theories from a Biblical perspective and the ways in which these theories can be applied in their own organizations. Students are also introduced to the concepts of worldview, culture, and paradigms and the effect that such concepts have on leadership practices.

MOL 510 Leadership and Communication (3) This course is designed to build and enhance the types of specialized organizational and interpersonal communication skills that are necessary to support effective leadership. The ability to use these skills to create commitment to organizational vision, goals, and workplace culture is a specific course focus. In addition, students examine various communication models, conflict resolution strategies, and the effect of diversity on communication.

MOL 515 Leadership and Ethics (3) The moral dimension of leadership is a primary consideration in this course as students explore the Biblical and philosophical foundations of ethics in relation to organizational behavior and leadership. Particular emphasis is given to examining the relational process between leader and follower and the critical roles played by ethics in helping to shape that relationship.

MOL 520 Research Methods (3) This course is designed to acquaint students with various research methodologies and to enable students to construct and develop data collection plans and data gathering instruments that can be used in ongoing workplace practice. The course emphasizes the use of qualitative methods in the context of conducting and interpreting research. Upon course completion, students will have gained the ability to identify issues in organizations that benefit from qualitative research analysis; develop an organizational culture description; and apply research skills in organizational settings.

MOL 525 Leadership and Motivation (3) This course investigates motivational and organizational psychology theories as a means of creating servant leadership models. In addition, strategies are investigated that organizational leaders employ to create environments conducive to high levels of self-motivation and growth among individuals in organizational settings. Specific Biblical applications are compared and contrasted with current theory.

MOL 530 Leadership and Organizational Change (3) Through a study of related theories and models, this course lays the foundation for an in-depth understanding of the dynamics of positive organizational change. In addition to investigating
present and future trends in organizational change, students are shown how change can be implemented with Biblical, servant-leadership perspectives and how such change models can be sustained for the long term. As part of the course assignments, students gain experience by designing a change model and applying it to their own organizations.

MOL 535 Leadership and Decision Making (3) Decision-making theories, models, research, and techniques are explored in detail. Students will be able to apply these principles to various organizational settings. A heightened awareness of the place ethics and a Biblical worldview play in effective decision-making is a specific course focus. A decision-making model, aimed at addressing a specific organizational situation, is developed by each student to enhance his or her leadership skills.

MOL 540 Principles of Organizational Finance (3) Students are provided with a working knowledge of essential concepts that are used in understanding the financial picture of organizations. The application of those concepts for effective organizational leadership and decision-making is a key emphasis. In addition, students examine the importance that stewardship and ethics play in financial decision-making.

MOL 545 Leadership and Strategy (3) This course concentrates on the tools necessary for effective strategic leadership in today's organization. Throughout this course, current concepts such as reengineering, continuous improvement, benchmarking, alignment, organizational culture, and competitive advantage are applied in the traditional context of strategic planning. Strong emphasis is placed on the key tasks of strategic analysis, strategy formulation, and strategy implementation. Also, students examine biblical principles of vision, mission, and strategy. The analysis of organizational cases, using strategic planning tools, is a focus of course methodology.

MOL 550 Professional Development (3) This course is designed to provide students with an opportunity for self assessment, reflection, and goal setting. Students discover how self-assessment can be used to develop their own professional goals as well as encourage professional growth among other individuals in their organizations. In addition, the concepts of vocation, calling, and gift identification are explored from both the professional development and Biblical literature perspectives.

MOL 555 Integrated Leadership Project (6) The ILP is a 6-credit academic endeavor that is developed over the course of the MSOL program experience, similar to a portfolio process. The ILP is a record, an expression of the student's individual conception of organizational leadership that describes how and why theories and concepts from each course contributes to a developing perspective. It includes chapters related to each of the courses, an annotated bibliography on organizational leadership and a concluding chapter that summarizes the student's personal philosophy of organizational leadership.

## UNDERGRADUATE COURSE DESCRIPTIONS

This listing of each course includes its formal name, the number of credit hours earned when it is completed successfully, a general description of the content, the frequency with which it is usually offered, and prerequisites that are usually required. Note that special circumstances may lead to the course being offered more frequently than scheduled and, on some occasions, the college may choose not to offer a course in the expected semester. Students should consult the course listing printed each semester prior to registration and, if difficulties in scheduling occur, should consult their academic adviser. In all cases, the content of each course will be indicated more fully by the course syllabus that will be available from the instructor at the beginning of the course.

The following courses may be repeated, but only eight credit hours will count towards a bachelor's degree and four credit hours maximum for an associate degree: COM 200, 201, 202, 203, 204; EDU 220; ENG 221, 222, 223; HMN 491; MUS $212,213,214,215,216,218$. (See limitations on page 20.)

## ACCOUNTING•ACC

ACC 151, 152 Accounting I, II $(3,3)$ A two semester introduction to accounting. Economic events are examined from both an external financial reporting perspective and an internal management decision-making perspective. The role of accounting systems in organizations is emphasized. Usually offered every semester. Co-requisite for ACC 151: BUS 110.

ACC 256 Managerial Accounting (3) Industrial accounting fundamentals with a managerial emphasis; process; job order; standard costs and direct costing; cost reports and control; budgets; cost analysis; profit planning; and the uses of cost accounting by management. Spring semester, alternate years. Next offered Spring 2010. Prerequisites: ACC 151 and BUS 241.

ACC 261, 262 Intermediate Accounting I, II $(3,3)$ Preparation of financial statements, inventory valuation, problems connected with plant assets, bonds, stocks, and cash flow with attention given to professional pronouncements. Fall semester. Prerequisite for ACC 261: ACC 151. Spring semester. Prerequisite for ACC 262: ACC 261

ACC 357 Taxation (3) Underlying principles and concepts of income taxation as they relate to the preparation of federal income tax returns for individuals, partnerships, and corporations. Fall semester. Prerequisite: ACC 261 and 12 credit hours in accounting.

ACC 358 Advanced Taxation (3) In-depth consideration of income taxation, including the principles of estate and gift taxation. On demand. Prerequisite: ACC 357 and 12 credit hours in accounting.

ACC 363 Advanced Accounting (3) Partnerships, consolidated statements, multinational accounting, bankruptcy, and other topics. Fall semester. Prerequisite: ACC 261.

ACC 365 Accounting Special Topics (3) Special topics course to fulfill core accounting requirement; potential to offer International Accounting as it is a new and important current topic. Forensic Accounting due to the increased market demand, Advanced Taxation, Advanced Managerial Accounting, etc. Spring semester. Prerequisites: ACC 151 and ACC 152.

ACC 450 Accounting Systems and Application (3) Using QuickBooks to perform and understand accounting transactions, controls, and procedures in a simulation-type setting. Fall Semester. Prerequisites: ACC 361 and ACC 362.

ACC 457 Auditing (3) Independent audit examinations and reports with emphasis on educational and moral qualifications of professional accountants. Includes introduction to management advisory services and statistical sampling. Spring semester. Prerequisites: BUS 241 and 18 credit hours in accounting .

ACC 491, 493, 494, 495 (see page 19)

## BIBLICAL STUDIES • BIB

BIB 112 Biblical Introduction I-Creation to Post-Exilic Period (3) Introduction to the history of salvation as expressed in the Old Testament, including historical and theological study focused on Israel as the covenant people of God, with special attention on the relationship of the Old Testament to Jesus Christ.

BIB 113 Biblical Introduction II—Intertestamental Period through Apostolic Age (3) The political, social, and religious background and setting of the New Testament; the Gospels as witness to Jesus Christ; and the development of Christianity in the first century.

BIB 151 Introduction to Biblical Studies (honors) (3) An introductory Old Testament Bible course for students with a strong Bible background. Prerequisite: Invitation, based on pretest performance.

BIB 152 Introduction to Biblical Studies (honors) (3) An introductory New Testament Bible course for students with a strong Bible background. Prerequisite: Invitation, based on pretest performance.

BIB 200 How to Read the Bible (3) This course provides a general overview to the principles of interpretation from a redemptive historical perspective. Fall semester.

BIB 300 Foundations of Christian Thought (3) Scripturally derived concepts undergirding Christian academic work, and a biblically directed view of the world and of man's role in the divinely established order. Prerequisites: BIB 112, BIB 113. Open only to juniors and seniors.

BIB 301 Old Testament Prophecy (3) Theological and ethical content, with attention to the original life-settings and contemporary relevance of the prophetic literature. Repeatable. Prerequisites: BIB 112/BIB 113 or BIB 151/152; BIB 200 or permission of the instructor.

BIB 302 Wisdom Literature (3) The wisdom tradition in Israel and the ancient Near East, with special emphasis on Job, Proverbs, and Ecclesiastes. Approved HUM 304 option. Prerequisites: BIB 112, BIB 113, and BIB 200 or permission of the instructor.

BIB 303 Old Testament Studies (3) Variable topics in the Old Testament. Gives opportunity to study the book of Psalms or a more in-depth examination of some of the Pentateuch or history books. Repeatable. Prerequisites: BIB 112/113 or BIB $151 / 152$; BIB 200 or permission of the instructor.

BIB 304 Psalms (3) This course explores the biblical book of Psalms under four headings: its ancient Israelite origins, its witness to Israel's Old Testament theology, its use in the New Testament, and its use in the Christian prayer and worship. Approved HUM 304 option. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Spring semester.

BIB 305 Isaiah (3) A study of the Old Testament Book of Isaiah, with special attention toward exploring its role in the unfolding of redemptive-history, and how its message and imagery contains key themes that were recognized by the New Testament writers as having been ultimately fulfilled in the Person and Work of Jesus Christ. Approved HUM 304 option. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Fall semester.

BIB 306 Daniel (3) An introduction to Biblical prophecy and the book of Daniel. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Spring semester..

BIB 307 Judah's Exile and Restoration (3) A study of Judean history and prophecy from the Babylonian captivity to the return from exile. Approved HUM 304 option. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Spring semester.

BIB 308 Luke (3) A study of the Gospel of Luke. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Fall semester.

BIB 309 Revelation (3) A study of the book of Revelation. Prerequisites: BIB 112/113 or BIB 151/ 152; BIB 200. Fall Semester.

BIB 311 Matthew (3) A study of the Gospel of Matthew. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Fall semester.

BIB 313 John (3) A study of the Gospel of John. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Spring semester.

BIB 315 Acts (3) A study of the Book of Acts. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Fall semester.
BIB 316 Romans (3) An in-depth study of the Book of Romans. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Fall semester.

BIB 317 Ephesians/Pastoral Epistles (3) A study of Ephesians, its themes and doctrines. Prerequisites: BIB 112/BIB 113, or BIB 151/152; BIB 200. Spring semester.

BIB 318 Hebrews (3) Studies the setting and theological themes of this major New Testament epistle. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Spring semester.

BIB 322 Calvin's Institutes (3) A survey of the theological concepts in John Calvin's Institutes of Christian Religion with an introduction to the life and ministry of John Calvin. Prerequisites: BIB 112, BIB 113 and BIB 200.

BIB 324 Introduction to Reformed Tradition (3) An introduction to the history and theology of the Reformation, especially as seen in the Westminster Confession of Faith. Approved HUM 304 option. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Fall semester.

BIB 325 Biblical Theology (3) Dominant motifs of Biblical literature, emphasizing Biblical texts, with some review of theological literature and methods. Prerequisites: BIB 112 and BIB 113.

BIB 340 Inter-Testamental Literature (3) Examines the history, literature, and religious developments of the Jewish people between the close of the Old Testament and the time of Jesus. Prerequisites: BIB 112/113 or BIB 151/152; BIB 200. Fall semester.

BIB 341 Archaeology \& Geography of Israel (3) This course, team taught by faculty in the Bible Department, studies archeology in general, specific archeological sites in Israel, and the historical geography of Israel. This course culminates in a trip to Israel over Christmas Break. Students unable to participate in the travel component of the course may write a research paper. Permission only. Prerequisites: BIB 112, BIB 113. Fall semester, alternate years.

BIB 350 History of the Christian Church (3) Origin and spread of Christianity from the time of the apostles to the end of the 1900s, with special emphasis on doctrinal formulations. Prerequisite: HUM 203.

BIB 491, 493, 495, 499 (See page 19)

## BIOLOGY • BIO

BIO 100 Transition to College Biology (1) This course is designed to aid first semester freshmen biology majors in their transition from high school science to college biology. Study skills, Christian perspective and vocation will be emphasized. Fall semester, every year.

BIO 101 Topics in Biology (3) An in-depth examination of one biological topic that varies from semester to semester. Fulfills part of the natural science requirement for graduation but does not give credit toward a major in biology. Repeatable. Every semester.

BIO 111 Introduction to Environmental Biology (4) An introduction to biology as a science; biological principles that operate in populations, communities and ecosystems; and principles of animal behavior. Natural selection and life origins are also discussed. Laboratory emphasizes application of the scientific method, classification of animals, and writing in the biological sciences. Three hours lecture and three hours laboratory per week. Fall semester.

BIO 112 Introduction to Cellular Biology (4) An introduction to the biological principles that operate at the cellular and molecular levels of organization. Three hours lecture and three hours laboratory per week. Spring semester. Prerequisites: CHM 111 or permission of the instructor.

BIO 210 ID and Evolution (3) This course explores the debate between the proponents of Intelligent Design (ID) and the defenders of Darwinian Evolution, by reading and discussing compelling publications written by each camp. Fall semester, alternate years.

BIO 218 Introduction to Nutrition (3) An introduction to the major types of nutrients needed by humans, their utilization by the body, the consequences of their deficiencies, and their sources. Nutritional principles are applied through the life cycle. Spring semester, alternate years.

BIO 225 Human Anatomy and Physiology I (4) An introduction to gross anatomy and microscopic anatomy, as well as the function and regulation of the organ systems of the human body. Both systemic and regional approaches to learning anatomy will be used. Fall semester. Prerequisite: BIO 112 or permission of the instructor.

BIO 226 Human Anatomy and Physiology II (4) This course focuses on the physiological regulation of human body homeostasis. The first segment covers neuronal and endocrine signal pathways vital to intercellular communication and regulation. Subsequently, regulation of homeostasis in a variety of stress and disease states is presented. In the laboratory, the student will perform actual experiments using physiological recording techniques. Students are challenged to integrate their knowledge of physiology with their theological and philosophical views of human nature and personhood. Spring semester. Prerequisites: BIO 112 and BIO 225.

BIO 302 Embryology (4) Analysis of all stages of embryonic development, touching on underlying mechanisms. Focus is on mammalian development in lectures; fish, chick and mouse embryonic development in lab. Ethical issues involving human embryos are also discussed. Fall semester, odd years. Prerequisites: BIO 112 and BIO 225, or permission of the instructor.

BIO 305 Microbiology (4) An introduction to the various types of microorganisms and representative human microbial infections. Also includes principles of infectious disease and host responses to infection. Three hours lecture and three hours laboratory per week. Spring semester. Prerequisite: BIO 112.

BIO 306 General Ecology (4) Principles describing the interactions of organisms with their living and non-living surroundings. Laboratories introduce field techniques. Three hours lecture and recitation; and three hours laboratory per week. Spring semester, alternate years. Prerequisite: BIO 111.

BIO 310 Botany (4) Introduction to plant structure, function, and diversity. Three hours lecture and three hours laboratory per week. Fall semester, alternate years. Prerequisites: BIO 111 and BIO 112 or permission of the instructor.

BIO 315 Immunology (3) A thorough study of the activities, interactions, and regulation of the immune system and its role in areas such as infections, transplants, tumors, and auto-immunity. Fall semester, even years. Prerequisite: BIO 225 or permission of the instructor.

BIO 316 Virology (3) A study of the general mechanisms by which viruses cause disease followed by a survey of the major groups of human viruses and the infections and tumors which they cause. The diagnosis and treatment of viral infections are also discussed. Spring semester, alternate years. Prerequisite: BIO 112 and BIO 319.

BIO 317 Biochemistry (3) An introduction to biochemistry focusing on the structure and function of biological compounds. Topics include cellular structure, biological reactions, compartmentalization, water, amino acids, proteins, enzymes, carbohydrates, and membranes/lipids. Three hours lecture per week. Fall semester. Prerequisite: CHM 222. Cross-listed as CHM 317.

BIO 319 Genetics (4) A study of the inheritance, expression, and regulation of genes. Of particular interest is the relationship of these topics to human disease. Three hours lecture and three hours laboratory per week. Fall semester. Prerequisite: BIO 112.

BIO 331 Biomedical Ethics (3) A description and critique of the worldviews underlying humanistic and Biblical principles of ethics and the application of those principles to contemporary problems in health care and medical technology. Spring semester, odd years. Prerequisite: biology major, junior status.

BIO 405 Molecular Biology (4) An investigation into several of the hottest topics in molecular biology based on recent articles from biological journals. Particular areas of interest include intracellular sorting, signal transduction, cell cycle regulation, and cancer. The lab integrates techniques from biochemistry, cell biology, immunology, and molecular genetics. Three hours lecture and four hours laboratory per week. Spring semester, alternate years. Prerequisites: BIO 112 and BIO 319.

BIO 420 Senior Paper (1) Development of a thesis which examines one topic in biology from a Christian worldview contrasted with a secular worldview. Grade of C- or better required for graduation. Every semester, limited enrollment. Prerequisite: biology major, senior status.

BIO 421 Genomics (3) The course will be an in depth exploration of contemporary genomics. This newly emerging field studies the structure, content and evolution of genomes. The analysis of gene regulation at the genome level (transcriptome) is also emphasized. The related disciplines of bioinfomatics and computational biology will be integrated into the course. Applications will focus on the discovery of disease gene alleles and the analysis of genetic determinism in relation to a Biblical anthropology of humaness. Course format will include lectures, critical reading of current research articles and discovery based learning. Spring semester, alternate years. Prerequisites: BIO 226 and BIO 319.

BIO 422 Neuroscience (4) The course will teach the electrophysical, cellular, and molecular basis of neuronal signaling. This will serve as the foundation for understanding the neuroscientific bases of thought, mood, learning, memory, and selected diseases. The student will also be challenged to integrate current neuroscientific knowledge with their ethical, philosophical, and theological views of human nature. In the laboratory, the student will perform experiments in electrophysiology using crayfish neuron and muscle preparations. Three hours lecture and three hours laboratory per week. Fall semester, alternate years. Next offered, Fall 2009. Prerequisites: BIO 226, BIO 319 and PHY 181.

BIO 292, 491, 493, 495 (See page 19)

## BUSINESS • BUS

BUS 110 Business Foundations (3) A course that exposes students to current business concepts and provides a holistic view of business operation. Includes study of external factors affecting management decision-making. Case analysis and computer simulation are utilized to present business interrelationships. Every semester.

BUS 115 Business Communication (3) Course emphasizes business and professional communication in the marketplace. Topics include business writing, business presentations, professionalism, teambuilding and international business communication. Every semester.

BUS 140 Introduction to Business Computing (3) An introductory course in the field of computing with a business emphasis. Course includes an introduction to computers, an introduction to programming and the use of business application software such as word processing and spreadsheets. This course does not count toward the business major. Every semester.

BUS 241 Quantitative Analysis I (3) Introduction to basic statistics and spreadsheets. Includes data collection, descriptive statistics, basic concepts of probability, inferential methods, hypothesis testing, correlation, and regression. Every semester.

BUS 242 Quantitative Analysis II (3) The study of the firm using a systems approach. Problem solving and decisionmaking are examined as well as use of quantitative analysis to business problems. Extensive use of spreadsheets and simulations. Topics include forecasting, cash management, break-even analysis, decision theory, and statistical analysis. Prerequisite: BUS 241 or MAT 161. Every semester.

BUS 304 Report Writing for Management (3) Practices learned in freshman composition applied to scientific description, report and research papers, and special correspondence. Written papers each week. On demand.

BUS 310 Principles of Management (3) Management and administrative concepts that are common to all types of organizations. Focuses on the functions of planning, organizing, leading, and controlling, with emphasis on integration of faith, systems, and contingency approaches. Prerequisite: sophomore standing and recommended to be taken in the sophomore year. Every semester.

BUS 311 Business Law (3) General principles applied to contracts, agency, negotiable instruments, business organizations, personal property, security relations, real property, and trade regulations. Every semester. Prerequisite: sophomore standing.

BUS 312 Supervision (3) An applied review of the technical, conceptual, human resource, and decision-making skills required for supervisory assignments. Emphasis is placed upon diversity management, quality initiatives, productivity, legal compliance, strategic alignment, and team-based operations. Spring semester. Prerequisite: BUS 310 or permission of the instructor.

BUS 314 International Business (3) A survey course covering international economics, international trade, foreign direct investment, and functional management in the international environment. Every semester. Prerequisite: junior standing. BUS 310 recommended.

BUS 316 China Experience (3) A 15 day cultural/business exposure trip to Nannjing, Suzhou, Zhouzhuang, Yanghow \& Shanghai, China. Includes classes in history, culture, art, language, \& business. Tours of cultural, historic, \& business sites. Approved HUM 304 option. Spring semester.

BUS 320 Principles of Marketing (3) Historic development, buying motivation, market structure, product development, distribution policies, pricing, and legislative regulations. Every semester. Prerequisite: BUS 110.

BUS 330 Principles of Finance (3) Principles of financial management. Course topics include ratio analysis, cash flow forecasting, leverage, working capital management, cost of capital, capital budgeting, and security types. Every semester. Prerequisites: ACC 151, BUS 241 and BUS 310, and either ECO 211 or ECO 212.

BUS 331 Investments (3) Basic principles of investment suitable for the individual and for the various types of business organizations. Fall semester. Prerequisite: junior standing. Course in economics recommended.

BUS 341, 342 Development of Information Systems I, II $(3,3)$ Analysis of business, industrial and institutional organizations from the viewpoint of computer applications. Data processing, hardware configurations, peripheral devices; analysis of systems; development of computer implemented systems. Fall semester. Prerequisites for BUS 341: BUS 110 and BUS 241 or permission of the instructor. Spring semester. Prerequisite for BUS 342: BUS 341.

BUS 350 Human Resource Management (3) A survey of the management of human resources and its role in strategy formulation and implementation. Content includes the study of employee recruitment, socialization, motivation, training and development, legal compliance, evaluation, and retention. Every semester. Prerequisites: BUS 310, sophomore standing, or permission of the instructor. BUS 310 may be taken concurrently.

BUS 371 Operations Research (3) Quantitative approaches to management decision-making. Includes review of probability, decision theory, linear programming, network analysis, inventory control, waiting line theory, and simulation. Applications to business and industry. Spring semester. Prerequisite: BUS 242 or permission of the instructor.

BUS 400 Biblical Management and Business Ethics (3) The integration of insights from a Christian perspective wrestling with the problems associated with carrying out managerial decisions and managerial applications within organizations. The course focuses on management challenges and ethical issues facing managers. Every semester. Prerequisite: BUS 310 and junior standing.

BUS 410 Strategic Management (3) The capstone business class, integrating concepts and practices from the core business classes, utilizing an organization-wide perspective. The course emphasizes strategic analysis, strategy formulation, and strategy implementations so as to formulate sustainable competitive advantage. Case analysis and computer simulation are the central learning components. Every semester. Prerequisites: senior standing and BUS 330 or permission of the instructor. BUS 320 and BUS 415 recommended.

BUS 411 Advanced Business Law (3) In-depth consideration of principles including uniform commercial code, contracts, and employment law. Intended to meet the CPA examination requirements of certain states that set a two-semester minimum requirement. On demand. Prerequisite: BUS 311.

BUS 415 Operations Management (3) Planning and controlling the use of human resources, materials, capital, and equipment for production; the manufacturing and service firm from both a conceptual and a quantitative viewpoint. Every semester. Prerequisites: BUS 242 and senior standing.

BUS 417 The Entrepreneur (3) Seminar in management for students interested in operating their own business. Study, guest speakers, and field trips designed to fit specific needs of students enrolled. Limit 15 students. Spring semester. Prerequisite: junior standing.

BUS 419 Management Insights (1) Student interaction with professionals in the various fields of business. Not repeatable. Prerequisite: Junior or Senior status or by permission.

BUS 420 Marketing Research (3) Introduction to the practical problems, including sources of information, questionnaire preparation, design of a sample, analysis of data, preparation of reports. Fall semester. Prerequisites: BUS 242 and BUS 320 or permission of the instructor.

BUS 421 Advertising and Promotion (4) A comprehensive study of advertising, detailing its relationship to marketing practice. Topics such as advertising preparation, media selection and evaluation, consumer behavior and research, and promotional budgeting, are included. The roles of public relations, direct marketing, and sales promotion, in addition to advertising, are also explored within the context of an integrated marketing communications (IMC) program. Fall semester. Prerequisite: BUS 320 or permission of the instructor.

BUS 422 Sales and Sales Management (3) This course introduces the student to the basic principles and foundations of Personal Selling on three levels: industrial, commercial, and retail. Emphasis is on the detailed analysis of the sales process as viewed by the salesperson. Other sales foundation topics covered include the organizational buying process, sales communications, the theory of adaptive sales, and ethical/legal issues in selling. Using a variety of instructional methods such as role-playing and video cases, students are given an opportunity to practice their newly acquired sales skills. In the second portion of the course, various specialized managerial functions are studied such as sales department budgeting, sales force organization, territory design, and sales compensation. Spring semester. Prerequisite: BUS 320.

BUS 424 International Marketing and Export Management (3) An upper level course focusing on key management functions in international marketing: entry strategies, product and pricing policies, financing, promotion and distribution. The course will also concentrate on export management that is the major international activity of most small and mediumsized companies. Prerequisite: BUS 320.

BUS 425 Consumer Behavior (3) The concepts and theories explaining the decision process used by the consumer in purchasing goods and services. Topics from economics, psychology, sociology, and marketing are integrated to understand the influences on choice made by the consumer. Spring semester. Prerequisite: BUS 320.

BUS 428 Strategic Marketing Policy (3) The course emphasizes strategic and operational issues in managing the marketing mix. Through the use of computer simulation, student team companies compete for market share and profitability. Spring semester. Prerequisites: BUS 320 and senior standing.

BUS 430 Intermediate Finance (3) Emphasis on valuation approach. Course topics include risk and return, valuation models, capital structure, capital markets, mergers and acquisitions, and bankruptcy. Spring semester. Prerequisites: BUS 242 and BUS 330.

BUS 445 Computing Applications in Management (1-3) Special topics. On demand. Prerequisite: permission of the instructor.

BUS 450 Collective Bargaining and Labor Relations (3) A survey of labor history, labor legislation, and the collective bargaining process. Course content includes contract administration, grievance and arbitration procedures and employee relations. A collective bargaining simulation is included in the course. Fall semester. Prerequisites: BUS 310 and BUS 350.

BUS 451 Compensation Management (3) A survey of wage, salary, and benefits management practices for organizations. Course content includes job analysis techniques, compensation systems, theoretical framework, compensation law, job evaluation processes, and individual, group and organization-wide incentive systems. Fall semester. Prerequisite: BUS 350 or permission of the instructor. BUS 242 recommended.

BUS 452 Employee Benefits (3) The purpose of the course is to gain a basic understanding of the nature and operation of employer-sponsored benefit plans. This course is meant to compliment the other courses in the HR concentration. The course will focus on benefits plan design, administration, funding, and regulatory guidelines. Prerequisite: BUS 350.

BUS 455 Strategic Human Resource Management (3) The capstone Human Resource Management (HRM) class, integrating the content of the previous HRM courses and the business core so as to study human resource strategy formulation and implementation. Emphasis is placed upon developing HR systems that align with strategy, development of corporate culture, and contemporary HR issues. Spring semester. Prerequisites: BUS 350 and senior standing or permission of the instructor.

BUS 491, 493, 494, 495, 499 (See page 19)

## CHEMICAL ENGINEERING - CHE

CHE 301 Chemical Engineering Processes (3) Introduction to the units and methods involved in designing commercial chemical processes. Fall semester. Prerequisite: CHM 232 or consent of the instructor.

CHE 302 Unit Operations (3) Study of equipment necessary to carry out chemical processes. Spring semester. Prerequisite: CHE 301.

CHE 401 Reactor Design (3) Techniques involved in choosing a reactor to produce a desired product, taught concurrently with MEE 418. Fall semester. Prerequisites: CHM 308 and CHE 302.

## CHEMISTRY • CHM

CHM 100 Introductory Applied Chemistry (3) An introduction to the basic concepts of chemistry with emphasis on utility for daily life. Not applicable toward a major or minor in chemistry. Three hours lecture per week. Offered periodically.

CHM 111 General College Chemistry (4) Begins with atomic theory and bonding and continues through simple chemical reactions, the periodic table and forms of matter. The students will develop the skills to perform general chemical calculations. Laboratory experiments will include physical properties, synthesis, kinetics, and identifying unknowns. Three hours lecture and 3.3 hours laboratory per week. Fall semester. Prerequisite: Math proficiency is required or permission of instructor.

CHM 160 Chemistry in Art (3) Topics include a scientific description of the materials and methods used in making works of art; light and the chemistry of color; pigments and dyes; restoration and conservation; scientific examination of artworks; the identification of fakes; and scientific probes of influence and style. Not applicable toward a major or minor in chemistry. Three hours lecture per week. Offered periodically.

CHM 170 Worth of Water (3) The course focuses on cultivating an understanding and awareness of the complex issues related to water issues in Southwestern Pennsylvania, the United States, and the global environment. It concludes with a travel component to southern Florida. Prerequisites: HUM 103 and HUM 203. Approved HUM 304 option. Offered periodically.

CHM 221 Organic Chemistry I (4) A study of carbon compounds that includes topics in structure, properties, and reactivity. All functional groups will be surveyed with alkanes, alkenes, halogens, and alcohols covered in detail. Attention will be given to basic mechanisms of organic reactions. The laboratory will introduce basic techniques in studying organic molecules. Three hours lecture and 3.3 hours laboratory per week. Spring semester. Prerequisite: CHM 111.

CHM 222 Organic Chemistry II (4) A continuation of study of the structure and chemistry of organic molecules, including radical reactions and the functional group chemistry of aromatics, alcohols, ketones, aldehydes, and amines. Introduction to biochemical molecules. Use and interpretation of major spectroscopy techniques including: NMR, IR, and mass spectroscopy. Laboratory will focus on synthesis and characterization. Three hours lecture and 3.3 hours laboratory per week. Fall semester. Prerequisite: Passing grade in CHM 221.

CHM 232 Quantitative Analytical Chemistry (4) Classical methods of analysis of chemical substances with an introduction to instrumental methods. Includes thorough understanding of the processes of ionic equilibria. Three hours lecture and 3.3 hours laboratory per week. Spring semester. Prerequisite: CHM 111.

CHM 304 Inorganic Chemistry (3) Chemical properties of inorganic chemical substances correlated with current theories of atomic and molecular structure and the periodic table. Special emphasis on current topics in inorganic chemistry. Fall semester. Prerequisite: CHM 232.

CHM 305 Advanced Organic Chemistry (3) Organic structures and reactivities, methods of studying reaction mechanisms (including spectroscopy), and comprehensive study of mechanisms of organic reactions. Topics will include ideas important in modern organic chemistry including the relationship of structure and reactivity, functional group manipulations, spectroscopy, methods of studying reaction mechanisms, and a comprehensive study of mechanisms of organic reactions. Spring semester, alternate years. Prerequisite: CHM 222.

CHM 306 Instrumental Analysis (3) Overview of the theory and practice of spectroscopic, electrochemical, and chromatographic techniques of chemical analysis. Spring semester, alternate years. Prerequisites: CHM 232 and PHY 182 or PHY 202.

CHM 307 Physical Chemistry I: Thermodynamics (3) The three laws of thermodynamics and the concepts of energy and equilibrium applied to physical and chemical systems. Includes the kinetic theory of gases and an introduction to statistical mechanics. Fall semester. Prerequisites: PHY 202, MAT 162, and CHM 221. Cross-listed as PHY 307.

CHM 308 Physical Chemistry II: Structure and Dynamics (3) Topics include the models of the structure of matter, surface phenomena, transport properties of matter, and chemical kinetics. Spring semester. Prerequisite: CHM 307.

CHM 310 Advanced Laboratory-Organic (1-2) Synthesis of organic compounds via multi-step and classic named reactions. Characterization and analysis of organic compounds by NMR, IR, MS, and chromatography. Three hours laboratory per week per credit. Spring semester, and alternate years. Pre or Corequisite: CHM 305.

CHM 311 Advanced Laboratory-Instrumental (2) Quantitative and qualitative analyses by spectroscopic, electrochemical, and chromatographic techniques. Six hours laboratory per week. Spring semester, alternate years. Pre or Corequisite: CHM 306.

CHM 312 Advanced Laboratory-Physical/Inorganic (1-2) Techniques of inorganic synthesis and physical measurement on these and other chemical systems. Includes handling of air-sensitive materials, bubble-cap fractional distillation, kinetics, spectroscopy, and thermochemistry. Three hours laboratory per week per credit hour. Fall semester. Prerequisite: CHM 232. Pre or Corequisite: CHM 307.

CHM 313 Biochemistry Laboratory (1) Purification and characterization of biological molecules with a focus on proteins, enzymes, lipids and carbohydrates. Techniques important for isolation and characterization of these molecules will be learned and applied in the laboratory. Techniques/experiments to include electrophoresis, spectroscopy, centrifugation, drug binding to proteins and kinetic analysis. Spring semester. Pre or Corequisite: CHM 317.

CHM 317 Biochemistry I (3) An introduction to biochemistry focusing on the structure and function of biological compounds. Topics include cellular structure, biological reactions, compartmentalization, water, amino acids, proteins, enzymes, carbohydrates, and membranes/lipids. Three hour lecture per week. Fall semester. Prerequisite: CHM 222. Crosslisted as BIO 317.

CHM 318 Biochemistry II (3) A study of metabolic and nucleic acid chemistry. Topics include bioenergetics, metabolic reaction mechanisms, metabolic pathways, biosynthesis, and pathway regulation. Spring semester, alternate years. Prerequisite: CHM 317.

CHM 412 Polymer Chemistry (3) Nomenclature, structure, properties, characterization methods, reactions, and synthesis of polymeric materials. Spring semester, alternate years. Prerequisite: CHM 307.

CHM 420 Chemical Research (credit variable—usually 2) Individualized laboratory work in a specialized field of chemistry under direct supervision. Problems should be selected a semester in advance to provide for preliminary literature review. Every semester. Three hours laboratory per week per credit hour. May be taken repeatedly but a maximum of two credit hours count toward a chemistry major or minor.

CHM 421 Current Topics Seminar (1) Study and discussion of selected current topics in chemistry. Requires use of primary chemical literature. May be taken repeatedly but counted no more than two times toward a chemistry major or minor. Every semester. Prerequisite: CHM 222.

CHM 491, 493, 494, 495,499 (See page 19)
Au Sable courses are listed on page 97

## CIVIL ENGINEERING•CIE

CIE 201 Geomatics Engineering (3) Field measurement of distance, elevation, and angles using various instruments including tape, automatic level, and total station. Topics include types of surveying, legal aspects, and error analysis. Fall semester.

CIE 231 Structural Analysis (3) Shear and moment diagrams, influence lines. Analysis of statically determinate and indeterminate trusses and frames. Virtual work, moment distribution, and matrix methods. Spring semester. Prerequisite: EGR 211.

CIE 301 Transportation Engineering (3) Introduction to the primary modes of transportation. Main emphasis on planning, design, and operation of roadways, including traffic flow theory, highway capacity, traffic control, geometry, drainage, and design of pavements. Fall semester, alternate years. Next offered, Fall 2009. Corequisite: CIE 201.

CIE 333 Reinforced Concrete Design (4) Design of reinforced concrete beams, columns, frames, and slabs using the strength method. Concentrates on use of the ACI 318 Code. Design software application. Practical design project. Spring semester. Prerequisite: CIE 231.

CIE 352 Water and Wastewater Treatment (3) Physical, chemical, and biological processes for the treatment of drinking water and municipal wastewater. Fall semester, alternate years. Next offered, Fall 2010. Prerequisite: CHM 221.

CIE 407 Geotechnical Engineering (4) Mechanics of aggregations applied to earthwork and foundations design. Spring semester. Prerequisite: EGR 211.

CIE 434 Structural Steel Design (3) Introduction to the design of structural steel beams, columns, tension members, frames, trusses, and connections (bolted and welded) using the load and resistance factor design (LRFD) method. Concentrates on AISC specifications and manuals. Design software application. Practical design project. Fall semester. Prerequisite: CIE 231.

CIE 451 Urban Hydrology (3) Water supply and sewer systems, reservoirs, wells, water transmission and distribution, sanitary sewers, storm sewers, flooding and flood control. Practical design projects. Fall semester. Prerequisite: EGR 315, Corequisite: MEE 417.

CIE 453 Solid and Hazardous Waste (3) Generation, handling, collection, processing, treatment, and disposal of municipal solid waste; unit processes for hazardous waste treatment, including incineration and solidification; landfills and ground water contamination. Spring semester, alternate years. Next offered, Spring 2010. Prerequisites: CHM 221 and EGR 314 or CHM 307.

CIE 454 Air Pollution Control (3) Sources and impacts of air pollution, atmospheric transport and dispersion processes, unit processes for air pollution control in stationary and mobile sources. Spring semester, alternate years. Next offered, Spring 2009. Prerequisites: CHM 221 and either EGR 314 or CHM 307. Corequisite: EGR 315 or CHM 308.

CIE 491, 493, 494, 495, 499 (See page 19)

## COMMUNICATION DISORDERS • CDS

CDS 160 Introduction to Sign Language (3) Manual communication via "Signed English." Emphasis on both receptive and expressive abilities of a basic, foundational vocabulary. Every semester.

CDS 190 Introduction to Communication Disorders (3) Characteristics, etiology, and an introduction to individuals with various communication disorders. Overview of the field. Fall semester.

CDS 220 Language Development (3) Focuses upon current information and theory regarding language development. Fall semester.

CDS 230 Phonetics (3) Emphasis on the description, classification, and transcription of speech sounds. Studies of the physiological, acoustical, perceptual, and descriptive aspects of speech and sound production. Fall semester.

CDS 250 Treatment Procedures in Communicative Disorders (3) Treatment principles and procedures used in treating communicative disorders. Current issues and ethics in the field of communicative disorders. Spring semester. Prerequisite: CDS 190.

CDS 260 Introduction to Audiology (3) Physics of sound; anatomy and physiology of the ear; types of hearing disorders, etiology, and treatments; audiometric evaluation. Fall semester.

CDS 270 Aural Rehabilitation (3) Communicative rehabilitation or habilitation of the hearing-impaired individuals through auditory training, speech reading, and hearing-aid orientation. Includes linguistic development of the hearing-impaired
child, therapy planning, educational alternatives, and psychosocial aspects of hearing impairment. Spring semester. Prerequisite: CDS 260.

CDS 280 Anatomy and Physiology of the Speech Mechanism (3) Anatomy, physiology, and neurology of the speech/language mechanism. Spring semester, alternate years. Next offered, Spring 2010.

CDS 340 Voice/Fluency Disorders (3) Description, diagnosis, and treatment of voice and fluency disorders in children and adults. Spring semester. Prerequisite: CDS 190 or permission of the instructor.

CDS 350 Language Disorders in Children (3) Description, diagnosis, and treatment of language disorders in children. Fall semester. Prerequisites: CDS 190 and CDS 220 or permission of the instructor.

CDS 360 Articulation/Phonological Disorders in Children (3) Description, diagnosis, and treatment of articulation/phonological disorders in children. Spring semester. Prerequisites: CDS 190 and CDS 230 or permission of the instructor.

CDS 370 Neurogenic Communication Disorders in Adults (3) Description, diagnosis, and treatment of neurogenic communication disorders in adults. Fall semester. Prerequisite: CDS 190 or permission of the instructor.

CDS 450 Clinical Experience in Communication Disorders (6) Experience in working with individuals that exhibit speech and/or language disorders to achieve more effective communication skills. Provide therapy under the supervision of a certified speech/language pathologist at facilities in the surrounding area. Every semester. Prerequisites: CDS 250, CDS 340, CDS 350, CDS 360 and CDS 370. Communication Disorders majors must have an overall GPA and major GPA of 3.0 to enroll in CDS 450.

## COMMUNICATION • COM

COM 101 Principles of Communication (3) Interpersonal, group, and formal public communication. Emphasis on the development of effective oral communication in various settings. Every semester.

COM 111 Introduction to Communication (3) This is the platform course for students in the communication major. Designed to provide an overview of the department. It introduces the student to the facilities, staff and major themes to be studied during his or her course of study. Required for all communication majors. Fall semester.

COM 140 Radio Production Workshop (3) Practices and procedures, including writing, producing, directing, and performing in various types of programs. Fall semester.

COM 145 Visual Storytelling (3) Since the days of silent movies, visual storytelling has been the chief concern in any successful film or video presentation. The technology has changed. Different styles of production and editing have come and gone in the industry, but a good foundation that understands the critical role of the storyteller will allow the student to adapt to any style and any new technology. This course will help students understand the digital video environment and how it can aid them in their storytelling skills. Spring semester. Prerequisite: COM 204 or permission of instructor.

COM 160 Interpretative Reading (3) Training in understanding thought and feeling in literature and in communicating it to an audience. Spring semester, alternate years. Next offered, Spring 2009.

COM 165 Acting Principles (3) Introduction to the principles of acting. Participation in several scenes and monologues. Fall semester.

COM 170 Costume History \& Design (3) An introductory level course covering costume history and basic design; a design project is included. The course will include an overview of the process in costuming a production, an overview of costume history, and provide basic techniques in costume design. Fall semester, alternate years.

COM 171 Make-up (3) An introductory level course covering make-up technique and application. The course will include an overview of make-up in production, instruction in methods of make-up application and design, and instruction on makeup techniques. Practical experience will come through lab work and design projects. Spring semester, alternate years. Next offered Spring 2010.

COM 172 Stagecraft I (3) An introductory level course covering the construction, painting, and rigging of stage scenery. Students will receive hands-on experience through individual projects and work on current productions. Fall semester.

COM 173 Stagecraft II (3) An intermediate level course covering construction, painting, and rigging of stage scenery. Students will receive hands-on experience through individual projects and work on current productions. Spring semester.

COM 174 Stage Management (3) A course covering the basic requirements of a stage manager. Through lectures, projects, and tests, this course will equip students with the tools needed to successfully stage manage a theatre production. Spring semester, alternate years. Next offered, Spring 2010.

COM 180 Introduction to Public Relations (3) Overview of the theories and applications of public relations and related fields. Examines integration of Biblical values in public relations through various lessons, case studies, and group projects. Fall semester.
*COM 200 Intercollegiate Forensic Practicum (1) For participants in intercollegiate speech events. Repeatable. Every semester.
*COM 201 Theatre Practicum (1) Practical experience in the various phases of theatre work connected with the major productions of the department. Repeatable. Every semester.

COM 202 Public Relations Practicum (1) Individual projects. Every semester. Repeatable with permission of the instructor.
*COM 203 Radio Practicum (1) Practical experience. Repeatable. Every semester.
*COM 204 Media Production Practicum (1) Practical experience both in and outside of the studio. Repeatable. Every semester

COM 210 Leadership Communication (3) A survey of leadership practices in terms of how those theories and practices are expedited through various communication media and processes. Fall semester.

COM 215 Argumentation and Debate (3) Critical analysis, organization, and evidence use applied to intensive study of a current issue. Fall semester.

COM 220 Group Communication (3) Process exercises and games designed to relate insights of behavioral science to practicing managers and students of group and organizational behavior. Spring semester.

COM 225 Intercultural Communication (3) Principles of cultural communication. Emphasis on the development of skills leading to more effective communication across differences of cultural background. Fall semester.

COM 230 Interpersonal Communication (3) An introduction to the theory and practice of interpersonal communication. The course focuses on skills needed to improve the quality of interpersonal communication and relationships. Fall semester, alternate years.

COM 240 Media Presentation (3) Techniques and mechanics of compiling, interpreting, editing, and reporting of news on radio and television. Fall semester.

COM 245 Writing for Integrated Media (3) A writing course to introduce the student to the technique that is concerned with writing for audiovisual media that are based on sequencing images; the fundamental challenges that arise in learning to think and to write visually; that a script is a plan for production; and that visual media are identifiably different from print media. Even if the student doesn't end up writing for a living they may have a job that requires them to read, interpret, evaluate, buy, or review scripts. This course will help with an understanding of scriptwriting and what makes a script work well. Fall semester, alternate years. Next offered, Fall 2010.

COM 250 Mediated Communications (3) The course traces human communication from its rhetorical roots of orality and literacy to the medicated technologies of radio, television, and the Internet. It will explore how Public Relations, the media and others use Electronic Communication tools to distribute their messages. Spring semester, alternate years.

COM 260 Play Direction (3) Principles and process of play-directing. Directing of several scenes. Knowledge of acting principles necessary. Spring semester, alternate years. Next offered, Spring 2009. Prerequisite: COM 165 or permission of the instructor.

COM 265 Intermediate Acting (3) Refines the techniques of psychologically realistic acting introduced in COM 165. Emphasis on careful analysis of scenes, developing effective rehearsal skills, and cultivating the student's emotional and technical resources for the performance of realistic drama. Fall semester, alternate years. Next offered, Fall 2009. Prerequisite: COM 165 or permission of the instructor.

COM 270 Lighting and Scene Design (3) Principles involved in preparing stage space for a given play. Includes rendering designs and building model sets as well as working with lighting equipment. Lab credit hours required. Fall semester, alternate years. Next offered, Fall 2009.

COM 280 Public Relations Publications (3) Hands-on experience in the development of graphic communications. Basics of design and software application for printed and electronic materials used in public relations and marketing. Spring semester, alternate years. Next offered, Spring 2011.

COM 300 Special Topics in Theatre (1-3) Performance curriculum enrichment courses. Topic varies. Fall semester, alternate years. Next offered, Fall 2009. Prerequisite: COM 165 or permission of the instructor.

COM 310 Public Speaking (3) Practical and psychological principles of persuasive speech in varied settings. Spring semester. Prerequisite: COM 101 or 200 level communications course.

COM 315 Communication Process (3) The study of communication through the exploration and analysis of societal theories and contemporary issues. Spring semester. Prerequisite: COM 101 and junior standing or permission of department chair.

COM 320 Communications Workshop Facilitation (3) Resources for improving communication in organizations, including workshop formats and workshop management skills. Fall semester. Prerequisite: COM 101.

COM 330 Special Topics in Communication (3) Special Topics in Communication will be a seminar course that will rotate between members of the department allowing them to teach various communication courses/topics based on research interests with the intent of exposing students to the breadth and depth of the discipline. Spring semester, alternate years.

COM 340 Advanced Audio Production (3) This course is for students wanting a more in-depth look at audio production. This course will build on knowledge gained from COM 140. In this course the student will concentrate on digital audio production techniques and on-location audio production. We will also closely examine the use of microphones and positioning for audio production. This course will involve a final project for the student's portfolio. Spring semester, alternate years. Next offered, Spring 2011.

COM 345 Advanced Video Production (3) A course focusing on short form video production, nonlinear video editing and Webcasting. During this course students will build on knowledge gained from COM 145. In this course the student will study and apply field production theory for post-production. Each student will produce several videos over the course of the semester working both independently and in teams. Spring semester.

COM 350 Principles of Multimedia (3) This course is an introduction to the new media. This course will examine Web page creation, graphics and animation, and the convergence of audio, video, and computers. Each student will produce a CD ROM as a final project. Prerequisite: sophomore standing. Spring semester, alternate years. Next offered, Spring 2010.

COM 365 Acting Styles (3) Problems of acting in classic dramas from the ancient Greeks to 19th Century Realism. Includes presentation of several scenes. Spring semester, alternate years. Next offered, Spring 2010. Prerequisites: COM 165 and COM 265 or permission of the instructor.

COM 370 Foundations of the Theatre (3) History and development of the physical theatre, theatre customs, acting, playwrights, and audiences of each period as an outgrowth of theological viewpoints. Approved HUM 304 option. On demand.

COM 380 Advanced Public Relations (3) Exploring the various tools and tactics of effective public relations as a means of building mutually beneficial relationships between commercial and/or nonprofit organizations and their various publics. Spring semester, alternate years. Next offered, Spring 2010. Prerequisite: COM 180.

COM 400 The Communication Professional (3) This course is taught in a facilitative format with heavy emphasis on final student projects and assessments of their portfolio. COM 400 is designed to aid the student in making closure on their major, its key values, and preparing their heart and mind for becoming servant-leaders who will transform society for the Kingdom of Christ. Limited to communication majors. Spring semester. Prerequisite: senior standing or permission of the instructor.

COM 493 Internship (3) Supervised involvement in professional and applied settings: integrated media, puplic relations, visual communication, writing, general communication, and communication disorders. On demand. Prerequisite: junior or senior standing and permission of the instructor.

COM 491, 494, 495, 499 (See page 19)

## COMPUTER ENGINEERING•CPE

CPE 220 Digital Systems (3) Boolean algebra, logic components, combinatorial and sequential system analysis and synthesis, number and coding systems; circuits, structure, and logical design of digital systems. Includes laboratory exercises and a design project using standard integrated circuits. Spring semester.

CPE 230 Computer Architecture (3) Hardware configuration and organization of computing systems; functional components, bus systems, memory systems, input/output facilities, operating system support, instruction set design, comparison of RISC and CISC systems, instruction pipelining, hardwired and microprogrammed control. Cross-listed as CSC 230. Fall semester. Prerequisite: CPE 220.

CPE 303 Microprocessor Systems (3) A study of microprocessors and their peripheral components as central elements in a digital system. Includes machine architectures, instruction sets, peripheral interfacing, data acquisition and control. A semester design project is required. Fall semester. Prerequisite: CPE 220.

CPE 304 Advanced Digital Logic (3) Design and implementation of complex combinational and sequential digital systems. Topics include the VHDL hardware description language, programmable logic devices, CAD tools for design entry, simulation and synthesis, and rapid prototyping. A semester design project is required. Spring semester. Prerequisite: CPE 303.

CPE 306 Software Engineering (3) Software process models, methodologies, tools and techniques to support the workflows of software development and maintenance. Other topics include testing, project management, team organization, reusability, portability, documentation, and planning. Large individual project. Cross-listed as CSC 306. Fall semester. Prerequisite: CPE 230 or CSC 230.

CPE 333 Operating Systems (3) Computer operating system; operating system issues related to process management, storage management, I/O systems, distributed systems, protection and security. Cross-listed as CSC 333. Fall semester. Prerequisite: CPE 230 or CSC 230.

CPE 450 Networks (3) An introduction to data and telecommunication networking. Topics include: analog and digital signals, network topologies, network protocols (TCP/IP), network operating systems, network hardware, frame types, the OSI model, LANs, WANs, the Internet, and ATM. Cross-listed as CSC 450. Fall semester. Prerequisite: CPE 230 or CSC 230.

CPE 452 Computer Security (3) Introduction to security of computer systems and networks. Topics include network and host-based intrusion detection, firewalls, secure web filtering, spy ware detection and removal, security vulnerabilities such as configuration management and patching issues, secure support of authorized users such as ID and access management, public key infrastructures (PKI), virtual private networks (VPN) and regulatory compliance issues. Cross-listed as CSC 452. Spring semester. Prerequisite: CPE 450 or CSC 450.

CPE 490 Embedded Systems (3) Design and implementation of embedded microprocessor systems. Includes the use of micro-controllers and complex logic devices to implement digital systems. Topics include C++ and assembly language programming, data structures, I/O structures, and real time operating systems. Includes a semester design project. Spring semester. Prerequisite: CPE 304.

CPE 491, 493, 494, 495, 499 (See page 19)

## COMPUTER SCIENCE • CSC

CSC 101 Introduction to Programming (3) Object-centered design and algorithm development. Basic concepts in structured programming including primitive data types, use of predefined classes, flow of control structures, subprograms, arrays and files taught using a modern object-oriented language. Every semester. Prerequisites: none.

CSC 102 Object-Oriented Programming (3) Introduction to object-oriented programming including classes, abstract data types, information hiding, inheritance, and templates. OOP concepts are demonstrated through building basic data structures (linked lists, stacks, queues) and fundamental algorithms using a modern object-oriented language. Spring semester. Prerequisite: CSC 101.

CSC 190 HTML (1) This course focuses on effective use of HyperText Markup Language (HTML), Extended HyperText Markup Language (XHTML), and Cascaded Style Sheets (CSS) in webpage design and development. Offered as needed.

CSC 204 Data Structures and Algorithm Analysis (3) An in-depth study of essential data structures and algorithms their implementation and analysis. Implementation of data structures in a modern object-oriented language is a significant component of this course. Spring semester. Prerequisite: CSC 102. Prerequisite or Corequisite: MAT 130.

CSC 205 GUI Design and Programming (3) Graphical User Interface design and implementation in an event-driven programming language. Concepts include issues of user interface design, event processing, integration of a database system, exception handling, and simple screen graphics. Fall semester. Prerequisite: CSC 101.

CSC 206 Web Programming (3) Design and implementation of Web pages and Web sites starting with the fundamentals of HTML and progressing through other languages and tools of increasing sophistication. Spring semester. Prerequisite: CSC 101 and fluency in HTML via CSC 190 or by exam.

CSC 230 Computer Architecture (3) Hardware configuration and organization of computing systems; functional components, bus systems, memory systems, input/output facilities, operating system support, instruction set design, comparison of RISC and CISC systems, instruction pipelining, hardwired and microprogrammed control. Cross-listed as CPE 230. Fall semester. Prerequisite: CPE 220

CSC 306 Software Engineering (3) Software process models, methodologies, tools and techniques to support the workflows of software development and maintenance. Other topics include testing, project management, team organization, reusability, portability, documentation, and planning. Large individual project. Cross-listed as CPE 306. Fall semester. Prerequisite: CSC 230 or CPE 230.

CSC 309 Software Engineering Project (3) Large team project is implemented, adhering to software engineering principles learned in CSC 306. Intensive team activity is required. Spring semester. Prerequisite: CSC 306 or CPE 306.

CSC 333 Operating Systems (3) Computer operating system; operating system issues related to process management, storage management, I/O systems, distributed systems, protection and security. Cross-listed as CPE 333. Fall semester. Prerequisite: CSC 230 or CPE 230.

CSC 364 E-Commerce (3) Explore the Internet as a way to communicate and do business in the changing technological world around us. Topics include: evaluation of tools, hosting services, visual design, and website management issues related to Web presence. Requires research and hands-on development. Fall semester. Prerequisite: CSC 206. Pre or corequisite: CSC 365.

CSC 365 Database Systems (3) Introduction to the fundamental concepts necessary for designing, using, and implementing database systems. Topics include: entity-relationship models, relational data model, relational database schemas, SQL, and emerging database technologies such as data warehousing and data mining. Hands-on experience using current database system. Fall semester. Prerequisite: CSC 101. Recommend CSC 230.

CSC 401 Christian Ethics and Computer Science (1) In-depth look at issues of ethics and professional practice related to the field of Computer Science and their integration with a Christian worldview. Course requires in-class presentations and a term paper. Fall semester. Prerequisites: BIB 112 and BIB 113.

CSC 407 Web Engineering (3) A capstone course where topics from web programming, software engineering, e-commerce, database systems and computer security are merged with project management, change and content management and usercentered design to support the engineering of complex web sites. Spring semester. Pre-requisites: CSC 206, CSC 306, CSC 364, and CSC 365.

CSC 450 Networks (3) An introduction to data and telecommunication networking. Topics include: analog and digital signals, network topologies, network protocols (TCP/IP), network operating systems, network hardware, frame types, the OSI model, LANs, WANs, the Internet, and ATM. Cross-listed as CPE 450. Fall semester. Prerequisite: CSC 230 or CPE 230.

CSC 452 Computer Security (3) Introduction to security of computer systems and networks. Topics include network and host-based intrusion detection, firewalls, secure web filtering, spy ware detection and removal, security vulnerabilities such as configuration management and patching issues, secure support of authorized users such as ID and access management, public key infrastructures (PKI), virtual private networks (VPN) and regulatory compliance issues. Cross-listed as CPE 452. Spring semester. Prerequisite: CSC 450 or CPE 450.

CSC 491, 493, 494, 495, 499 (See page 19)

## CROSS CULTURAL EXPERIENCE • XCX

XCX 311 Puerto Rico (3) This course will be a multi-disciplinary course integrated around the theme of Puerto Rico and specifically, colonialism in Puerto Rico. Prerequisite: HUM 203, HUM 303 concurrently.

XCX 313 Arizona (3) This course will be a multi-disciplinary course integrated around the theme of Arizona and specifically, colonialism in Arizona.

XCX 315 Ireland (3) This course will be a multi-disciplinary course integrated around the theme of Ireland and specifically, colonialism in Ireland.

## ECONOMICS • ECO

ECO 100 Fundamentals of Economics (3) General introduction to the field for non-majors. Credit is not granted to students completing ECO 211and/or ECO 212. If a student declares a major in the department after having taken ECO 100, this course may be substituted for ECO 212. Every semester.

ECO 211 Micro Economics (3) This course examines consumption and production at the household, firm and industry level; explains methods of economic analysis and price formulation; and examines the various market structures and behavior of pure competition, monopoly, oligopoly, and monopolistic consumption. Fall semester. Prerequisite: Sophomore standing/or permission of instructor or department chair.

ECO 212 Macro Economics (3) This course explains the characteristics and operations of the national economy including the measurement of national employment, production and income, the role of money and banking, and international trade. Students also learn methods of economic analysis, the role of government, and economic policy. Spring semester. Prerequisite: Sophomore standing/ or permission of instructor or department chair.

ECO 311 Money, Credit, \& Banking (3) Monetary system of the United States, the Federal Reserve System, and commercial banking. Alternate Fall semesters, next offered Fall 2010. Prerequisite: ECO 100 or ECO 211.

ECO 327 Comparative Economic Systems (3) Various proposals and attempts for improving our economic institutions including utopianism, socialism, communism, fascism, and the present developments in the United States. Spring Semester. Prerequisites: ECO 211 and ECO 212.

ECO 350 History of Economic Thought (3) Contributions of the mercantilists, the physiocrats, the English classicists, Karl Marx, the Austrian School, the historical economists, Alfred Marshall, Thorstein Veblen, and John Maynard Keynes. On demand. Prerequisites: ECO 211 and ECO 212.

ECO 351 Intermediate Economic Theory (3) General theory examined with emphasis on the micro approach. On demand. Prerequisites: ECO 211 and ECO 212.

## EDUCATION • EDU

Courses with an asterisk give credit only toward the Bachelor of Science in education degree and are to be taken only by elementary education majors, not by those in secondary certification programs.

EDU 095 Reading Improvement I (2) For college students who are under prepared in vocabulary development, reading comprehension, oral communication, or basic study skills. Fall semester. This course does not earn credit toward graduation.

EDU 096 Reading Improvement II (2) A continuation of Reading Improvement I. An individualized laboratory course in advanced study skills, including skimming, scanning, outlining, summarizing, note taking, and critical analysis of specialized types of reading materials. Spring semester. This course does not earn credit toward graduation.

EDU 202 Social and Philosophical Foundations of Modern Education (3) This course reviews the historic, philosophical, and social developments that affect American education, along with a study of its organization and legal foundations. Particular attention is given to the development of a philosophy of education. The course is designed to analyze historical, philosophical, and social developments in American education from a Christian perspective. Prerequisites: PSY 201 and enrollment in a certification program or permission of the department. This course must be taken at Geneva College.

EDU 211 Educational Psychology (3) Psychological principles and theories applied to teaching. The coverage of psychological variables that influence teacher functioning in the classroom, the role of human development, learning, instructional models, motivation, classroom management and discipline, the nature of and the response of teachers to exceptionality, and ethnic, racial, and social differences in schools. Every semester. Prerequisites: PSY 201 and sophomore standing.

EDU 214 Initial Field Experience-Special Education (1) Participant-observational experience in two settings including 12 hours working in a private or public school setting for children with learning disabilities, and 12 hours in a public school special education classroom for children with learning disabilities. An additional six hours of participation in a campus seminar and the first steps of developing a teaching portfolio will be required. Prerequisite: Act 33-34, and 151 clearances.

EDU 216 Initial Field Experience-Elementary (1) Systematic visitation, observation and participation in elementary school classroom. Nine seminar classes will help explore educational methods, techniques, and related issues. Recommended to be taken during the sophomore year. It is a prerequisite to junior year courses. Every semester. Credit granted up to two semesters. Prerequisites or Corequisites: EDU 211 or PSY 211 and Act 33-34, and 151 clearances.

EDU 217 Initial Field Experience-Secondary (1) Systematic visitation, observation and participation in the secondary school classroom. Must be taken by the sophomore year. It is prerequisite to junior year courses. Every semester. Prerequisites or Corequisites: EDU 211 or PSY 211 and Act 33-34, and 151 clearances.

EDU 220 Tutoring (1) Thirty hours of tutoring in a supervised setting. With permission from the instructor and education department chair, credit can be given for working with tutoring programs or other directed tutoring situations. Credit granted up to two semesters and graded as credit/no credit. Prerequisites: EDU 211 or PSY 211 and sophomore standing.

EDU 226 Kindergarten and Primary Education (2) Students will develop a framework for building the primary classroom based on what is age, individually, socially and culturally appropriate. Using state and national standards, each student will create and share an integrated unit of study. Fall semester.

EDU 242 Health and Physical Education in the Elementary School (2) required of students entering 2004 or earlier For the elementary school classroom teacher. Content, methods, materials, and evaluation of a program in the elementary school curriculum.
*EDU 250 Integrating the Arts in the Elementary Curriculum (3) The course will focus on the integration of the artsvisual arts, dance and movement, music and song, drama and theatre-into the elementary curriculum. The course will build an appreciation of the arts as well as basic concepts in the arts. It will also develop in the preservice teacher an understanding as to how the arts can be used to support and develop the core subjects of math, language arts, science, and social studies. The emphasis will be: what is basic to the arts, why integrating the arts can be essential to the curriculum, and how the arts can be used in the elementary school. Every semester. Prerequisite or Corequisite: EDU 211 or PSY 211.

EDU 290 Technology and Learning in Education (2) This course will have an emphasis on preparing a PowerPoint portfolio, using a grade book program, using the computer to enhance learning, and using the computer to provide information for the teacher or the students.

EDU 303 Introduction to Christian Education (3) Teaching of the Scriptures as they relate to education; the role of the teacher in the Christian school; the history of Christian education; and the organization and administration of the Christian school. Offered as needed.

EDU 320 Teaching of Reading in the Elementary Classroom (3) This course covers foundations of the reading process, history of reading methodologies, current approaches to teaching reading, and teaching strategies involved in word identification, comprehension, and assessment. Every semester. Prerequisites: EDU 211 or PSY 211, EDU 216, and requirements mandated by Chapter 354.
*EDU 330 Teaching of Mathematics in the Elementary Classroom (3) This will provide a strong pedagogical foundation in elementary mathematics. It will also focus on philosophical, psychological, and historical aspects of mathematics and mathematics education that are of concern to the elementary teacher. Every semester. Prerequisites: EDU 211 or PSY 211 and EDU 216 and requirements as mandated by Chapter 354.
*EDU 332 Children's Literature (3) This course is an introductory course in children's literature that gives a brief overview of the field and the various genres as they are used in the elementary school. Books that are appropriate for children ages 5 through 12 will be read and discussed, and teaching strategies that involve literature in the context of the curriculum will be modeled. Must be taken with EDU 333, EDU 335, EDU 336 and EDU 337. Every semester. Prerequisites: EDU 211 or PSY 211 and EDU 216, EDU 320, EDU 330, EDU 370 and requirements as mandated by Chapter 354.

EDU 333 Curriculum, Instruction \& Classroom Management (3) This field-based course will focus on curriculum development, instructional strategies, and classroom management skills. These skills, identified by research and bestpractice literature, are essential for effective teaching. Students will apply acquired skills and theories in actual classroom situations. Must be taken with EDU 332, EDU 335, EDU 336 and EDU 337. Every semester. Prerequisites: EDU 211 or PSY 211 and EDU 216, EDU 320, EDU 330, EDU 370 and requirements as mandated by Chapter 354.
*EDU 334 Teaching of Science and Social Studies in the Elementary Classroom (3) required of students entering 2004 or earlier. This course provides the future teacher with preparation for teaching in the content areas in the elementary school. A variety of strategies and philosophies for teaching will be explored. Inquiry based science is an important focus of the course. Must be taken with EDU 332, EDU 333 and EDU 335. Every semester. Prerequisites: EDU 211 or PSY 211 and EDU 216, EDU 320, EDU 330, and requirements as mandated by Chapter 354.
*EDU 335 Advanced Teaching of Reading in the Elementary Classroom (3) This course covers current approaches to teaching reading and includes strategies involved in assessing, planning, and teaching in a balanced literacy curriculum in the context of an advanced field experience. Must be taken in conjunction with EDU 332, EDU 333, EDU 336 and EDU 337. Every semester. Prerequisites: EDU 211 or PSY 211 and EDU 216, EDU 320, EDU 330, EDU 370 and requirements as mandated by Chapter 354.
*EDU 336 Teaching of Language Arts in the Elementary Classroom (3) This course covers listening, speaking, reading, and writing skills as they apply to child development and the elementary school curriculum. Teaching strategies for the language arts and the integration of the language arts into the content area will be addressed. Must be taken in conjunction with EDU 332, EDU 333, EDU 335 and EDU 337. Every semester. Prerequisites: EDU 211 or PSY 211 and EDU 320, EDU 330, EDU 370 and requirements as mandated by Chapter 354.

EDU 337 Teaching of Social Studies in the Elementary Classroom (3) This course provides the future teacher with preparation for teaching in social studies in the elementary school. A variety of strategies and philosophies for teaching will be explored. Must be taken with EDU 332, EDU 333, EDU 335 and EDU 336. Every Semester. Prerequisites: EDU 211 or PSY 211 and EDU 320, EDU 330, EDU 370 and requirements as mandated by Chapter 354.

EDU 339 Teaching of Science in the Elementary Classroom (3) This course provides the future teacher with preparation for teaching in science in the elementary school. A variety of strategies and philosophies for teaching will be explored. Inquiry science is an important focus of this course. Every semester. Prerequisite: EDU 202, EDU 211 or PSY 211 and requirements as mandated by Chapter 354.

EDU 370 Exceptionality in the Elementary School (3) A survey of the characteristics, needs, and legal status of children mainstreamed and included in the elementary classroom. Students will be expected to demonstrate knowledge of appropriate methodology for dealing with the exceptional child. Every semester. Prerequisites: EDU 211 or PSY 211 and requirements as mandated by Chapter 354.

EDU 375 Exceptionality in the Secondary School (3) A survey of the characteristics, needs, and legal status of students included in the secondary classroom. Teacher education students will be expected to demonstrate knowledge of appropriate methodology for dealing with the exceptional student. Fall semester. Prerequisites: EDU 211 or PSY 211 and requirements as mandated by Chapter 354.

EDU 380 History of Mathematics \& Mathematics Education (2) Today's efforts to reform the teaching of mathematics will be examined in an historical context. Both the history of mathematics education and the history of mathematical thought will be explored. The great thinkers and their contribution to mathematical thought will be highlighted. The implications of various worldviews, including a Christian worldview, concerning the nature of mathematics and mathematics pedagogy will be examined. Spring semester. Corequisites: EDU 382 and requirements as mandated by Chapter 354.

EDU 382 Math Curricula in the Middle and Secondary School (2) An introduction to curriculum resources focusing on what is critical for students to know and be able to do. Emphasis is on creating unity among the written, taught, and tested curricula. Those taking the course will become knowledgeable about and able to use the standards of the State of Pennsylvania and the National Council for the Teaching of Mathematics (NCTM) with regard to their own teaching of mathematics. Spring semester. Corequisites: EDU 380 and requirements as mandated by Chapter 354 .

EDU 410 Assessment and Remediation of Reading Difficulties (2) Basic techniques for working with children whose performance in reading is below the expectancy level; causes of learning failure; techniques in remediation. Required practicum includes diagnosis of, planning for, and instruction of remedial pupils from the area. Applies to either elementary or secondary teaching. Offered as needed. Prerequisites or Corequisites: EDU 320 or EDU 335 and requirements as mandated by Chapter 354.

EDU 413 Content Literacy in the Secondary Classroom (3) A foundation in content literacy or how to use reading and writing in different content areas within a secondary education setting. Strategies and methods of teaching will be modeled by the instructor and practiced by the student. EDU 414 should be taken in conjunction with this course. Spring semester. Prerequisites: EDU 211 or PSY 211 and requirements as mandated by Chapter 354.

EDU 414 Advanced Secondary Field Experience (1) This advanced field experience will focus on issues related to classroom and instructional management, and on the professional role of the teacher. Every semester. Prerequisites: EDU 217 and requirements as mandated by Chapter 354.

EDU 420 Educational Assessment (3) Methods and instruments for evaluating the individual and the various outcomes of the school program; elementary statistical techniques for interpreting measurements. Every semester. Prerequisites: EDU 211 or PSY 211 and requirements as mandated by Chapter 354.

EDU 430 Student Teaching Performance-Special Education (2) Observation and pre-service teaching under the supervision of a cooperating teacher and a student teaching supervisor from Geneva College. Every semester. Prerequisites: Student must meet all criteria delineated on page 63 must have completed the special education block of courses, and must have been accepted as a student teacher.

EDU 431 Student Teaching Performance-Elementary (4) Observation and pre-service teaching under the direction and supervision of a cooperating teacher and a student teaching supervisor from Geneva College. Every semester. For prerequisites, see admission to student teaching section on page 63 .

EDU 432 Student Teaching Performance-Secondary (4) Observation and pre-service teaching under the direction and supervision of a cooperating teacher and a student teaching supervisor from Geneva College. Every semester. For prerequisites, see admission to student teaching section on page 63 .

EDU 433 Student Teaching Portfolio (4) An integral part of student teaching, the portfolio experience is an opportunity for students to produce a collection of materials to show growth of knowledge and application of teaching practices. It is expected that, in the production phase, students will reflect on their performance and analyze their own work. A well-
developed portfolio will be a useful tool to help a graduate present herself or himself to prospective employers. Every semester. For prerequisites, see the admission to student teaching section on page 63.

EDU 434 Student Teaching Seminar (4) A weekly seminar provides a context in which professional issues can be explored and to which student teachers can bring issues they need to raise. The seminar will revolve around reviewing professional literature, developing curriculum materials and lesson plans, and participating in analysis and resolution of real and simulated concerns. Every semester. For prerequisites, see admission to student teaching section on page 63.

EDU 470 Advanced Studies in Special Education (3) Historical development of special education, characteristics of disabilities as defined by the Individuals With Disabilities Education Act, and detailed understanding of federal and state special education laws and legal forms, such as the IEP, as they apply to public and private school children who experience disabilities. Prerequisites: EDU 214, EDU 370, junior standing and requirements as mandated by Chapter 354.

EDU 471 Assessment of Exceptional Children (3) Prepares students to assess individuals with physical and/or mental disabilities both at the elementary and secondary level. Students will emerge from this course with a knowledge and understanding of the assessments that are given by licensed personnel to identify students with physical and/or mental disabilities. Geneva students will be given the opportunity to practice the skills learned and to assess students through field experience work in local educational agencies prior to the student teaching experience. Prerequisites: EDU 470 and requirements as mandated by Chapter 354, concurrent enrollment in EDU 472, EDU 473, EDU 474, EDU 475.

EDU 472 Academic Skill Intervention for Exceptional Children (3) Prepares prospective teachers to develop and implement special education and inclusive academic programs for the physically and/or mentally disabled student. Proven methods, strategies, and techniques will emphasize the required planning behind the use of such methods, strategies and techniques. Geneva students will be given the opportunity to practice the skills learned through field experience work in local educational agencies prior to the student teaching experience. Prerequisites: EDU 470, and requirements as mandated by Chapter 354, concurrent enrollment in EDU 471, EDU 473, EDU 474, EDU 475.

EDU 473 Behavioral Skill Intervention for Exceptional Children (3) Prepares prospective teachers to develop and implement special education and inclusive programs of behavioral intervention skills for the physically and/or mentally disabled. Behavioral management, behavioral modification techniques, therapeutic crisis intervention, behavioral avoidance skills, and other methods will be emphasized to prepare Geneva students to deal with problem behaviors with skill and confidence. Geneva students will be expected to practice their newly acquired skills and techniques through field experience work in local educational agencies prior to the student teaching experience. Prerequisites: EDU 470 and requirements as mandated by Chapter 354, concurrent enrollment in EDU 471, EDU 472, EDU 474, EDU 475.

EDU 474 Teaching Reading to the Exceptional Child (3) Teaches the theory and skills necessary for success in teaching reading to exceptional students. A wide variety of research on proven methods and techniques in teaching reading to exceptional students will be covered in this course. Geneva students will be given the opportunity to work with children with reading disabilities through our on-campus reading laboratory as well as through field experience opportunities prior to student teaching. Prerequisites: EDU 470 and requirements as mandated by Chapter 354, concurrent enrollment in EDU 471, EDU 472, EDU 473, EDU 475.

EDU 475 The Role and Function of the Special Education Teacher (3) Teaches the knowledge and skills to prepare prospective special educators to be effective in the day-to-day operations of directing a special education program whether serving in a resource, self-contained, itinerant, consultation, or inclusive models in either an elementary, middle school, or secondary environment. Prerequisites: EDU 470 and requirements as mandated by Chapter 354, concurrent enrollment in EDU 471, EDU 472, EDU 473, EDU 474.

EDU 491, 493, 494, 495, 499 (See page 19)

## ELECTRICAL ENGINEERING•ELE

ELE 213 Linear Systems (3) Characterization of linear systems in terms of differential and difference equations, superposition, convolution, transfer function and frequency response. Emphasis on continuous-time signals and systems. Specific topics include Fourier series and transforms, Laplace transforms and their application to electrical systems, sampling theory and aliasing. Spring semester. Prerequisite: EGR 212.

ELE 305 Electromagnetic Fields and Waves (4) Such topics as Coulomb's Law, Gauss' Law, energy and potential. Poisson and Laplace's equations, the steady magnetic field, time-varying fields, and Maxwell's equations. Fall semester. Prerequisites: PHY 202, MAT 405. Corequisite: MAT 261.

ELE 309 Electronic Devices and Circuits I (4) Introduction to the characteristics and circuit applications of diodes, fieldeffect and bipolar junction transistors and vacuum tubes. Includes energy band theory, graphical analysis, biasing, smallsignal equivalent circuits, device modeling, and computer simulation. Emphasis is on analysis and design of power supplies, small-signal amplifiers, power amplifiers, oscillators, and switching circuits. Laboratory exercises in design, simulation, and construction of circuits and measurements of their properties. Fall semester. Prerequisite: PHY 202 or EGR 212.

ELE 324 Electrical Machines (3) Energy, power transfer devices, magnetic circuits, transformer analysis, introduction to rotating machinery. Spring semester. Prerequisite: EGR 212.

ELE 402 Communications Engineering (4) Amplitude, phase and frequency modulation, Fourier analysis and spectra, transmission and reception circuits, transmission line and antenna theory. Laboratory exercises in spectral analysis of modulated signals, communications circuits, and transmission line and antenna properties. Spring semester. Prerequisites: ELE 305, EGR 316.

ELE 410 Electronic Devices and Circuits II (4) Continuation of ELE 309. Topics include feedback theory, linear integrated circuits with emphasis on operational amplifiers and their applications, SCR and Triac theory and applications, tunnel diodes, optoelectronic devices, and switching power supplies. Laboratory exercises in design, simulation, construction and measurement of circuits. Spring semester. Prerequisites: ELE 309, EGR 316.

ELE 440 Digital Signal Processing (3) Introduction to discrete signals and systems. Includes convolution, correlation, and Fourier transforms; sampling theorems, and digital filters. Spring semester. Prerequisite: EGR 213 or EGR 316.

ELE 491, 493, 494, 495, 499 (See page 19)

## ENGINEERING•EGR

EGR 100 Engineering: Calling and Vocation (1) Introduction to the engineering profession, the Biblical concepts of calling and vocation, and skills and information to enhance the transition from high school or work to college.

EGR 101 Introduction to Engineering (2) Introduction to engineering design and decision-making. Christian worldview applied to engineering. Use of logic, experimental data, and design criteria. Project-oriented. Every semester.

EGR 102 Computer-Aided Engineering (2) Design problems requiring the use of computers and professional software. Continuation of issues addressed in EGR 101. Introduction to engineering graphic design. Every semester. Prerequisite: EGR 101 or consent of the instructor.

EGR 211 Solid Mechanics (4) Statics of particles and rigid bodies. Equivalent force-couple systems and equilibrium in 2D and 3D. Frames and machines; centroids; introduction to friction. Mechanics of deformable bodies: stress, strain, tension, compression, torsion, bending, shear. Design and deflection of beams, stability of columns. Fall semester. Prerequisite: MAT 161.

EGR 212 Linear Circuit Analysis (3) DC and AC circuit analysis, network theorems, Kirchoff's Laws, topology, and computer aided techniques. Introduction to Fourier Analysis. Every semester. Prerequisite: MAT 162.

EGR 213 Systems Engineering (3) Systems approach to engineering problem solving. Economic analysis of projects including: time value of money, rate of return, break even and replacement techniques. Decision analysis using linear programming. Statistical analysis explored. Fall semester. Prerequisite: MAT 161.

EGR 214 Dynamics (3) Plane kinematics and kinetics of particles and rigid bodies. Equations of motion, work and energy, impulse and momentum. Simple gyroscopic phenomena. Spring semester. Prerequisites: EGR 211, MAT 162.

EGR 304 Technology and Society (3) An examination of the interactions between technological development and the development of human societies. Emphasizes the historical approach and involves the use of historical, imaginative, theoretical, sociological, philosophical, and/or theological writings on technology and society. Cross-listed as HUM 304. Spring semester. Prerequisites: HUM 203, SCS 110 (or two lab science courses), or consent of the instructor.

EGR 314 Engineering Thermodynamics (3) Application of first and second laws of thermodynamics. Work, heat, thermodynamic properties of pure substances. Introduction to refrigeration and power cycles. Fall semester. Prerequisite: PHY 201.

EGR 315 Transport Processes (4) Transport of momentum, heat, and mass; balances and equations of change. Applications to steady laminar and turbulent systems. Friction factor, heat transfer coefficient, and mass transfer coefficient. Introduction to macroscopic balances, including Bernoulli equation and applications to heat exchangers. Spring semester. Prerequisites: MAT 261 and either EGR 314 or CHM 307. Corequisite: MAT 405.

EGR 316 Process Control (3) Introduction to classical and modern control theory. Discussion of the elements of a practical system and computer modeling of such systems. Spring semester. Prerequisites: EGR 212, MAT 405.

EGR 322 Manufacturing Engineering (3) Introduction to manufacturing processes. Manufacturing as a total system; functional design of a product through the manufacturing process. Fundamentals of engineering materials, manufacturing processes, and automation; selection of the most favorable materials, processes, and methods. Spring semester, alternate years.

EGR 325 Materials Engineering (3) Atomic bonding, crystal lattices, dislocation theory, phase diagrams, heat treatment, ferrous and non-ferrous alloys, ceramics and glasses, polymers and composites. Fall semester, alternate years. Prerequisite: CHM 221.

EGR 371 Operations Research (3) Quantitative approaches to management decision making. Includes review of probability, decision theory, linear programming, network analysis, inventory control, waiting line theory and simulation. Applications to business and industry. Cross-listed with BUS 371. Spring semester, alternate years. Prerequisite: EGR 213 or MAT 105.

EGR 401 Christian Ethics and Engineering (1) The engineering profession, professional life. Christian ethics applied to engineering, discussion of case histories of ethical problems in engineering. Spring semester. Prerequisite: Senior standing or consent of the instructor.

EGR 481, 482 Senior Design Project $(2,2)$ Projects derived from industry sources or realistic integrated design problems. Projects may be undertaken by individuals or teams. Projects may be interdisciplinary or specific to an area of concentration. Must be taken in sequence; EGR 481 will be graded in progress (IP); the final grade in EGR 482 will count for all four credit hours in the GPA. Prerequisite: senior standing.

EGR 491, 493, 494, 495, 499 (See page 19)

## ENGLISH • ENG

ENG 095 English Proficiency (2) Development of basic writing skills in preparation for ENG 101. Limited to those recommended by department action. Fall semester. Credit-no credit. This course does not earn credit toward graduation.

ENG 101 English Composition (3) Fundamentals of expository writing. Offers practice in reading, interpreting, and responding to texts. Passing grade to meet college requirement is $\mathrm{C}-$ or better. Every semester. Does not count toward an English major.

ENG 102 Academic Writing and Research Process (3) The course is intended to serve those students who seek to improve the knowledge, skills, and strategies to find and critically evaluate information, and then organize the results of their research and communicate them in writing. Offered on demand. Prerequisite: ENG 101 or equivalent.

ENG 110 Proficiency in English as a Second Language (2) Development of oral and written communication skills in English for non-native users of English. Limited to those recommended by department action. Offered on demand. Creditno credit.

ENG 111 Topics in Contemporary Writing (3) Exposition, persuasion, and personal essay. Varying thematic focus. See current class schedule for precise description of each section. Repeatable. Alternate years, next offered Fall 2010. Prerequisite: ENG 101 or equivalent.

ENG 112 Critical Approaches to Literature (3) Basics of literary critical theory, study of literary genres, written work applying various critical perspectives to literature. Fall semester.

ENG 113 Researched Writing (3) Writing based on various kinds of research and investigation with an emphasis on individualized projects. Extensive practice in using library resources. Spring semester. Prerequisite: ENG 101 or equivalent.

ENG 151 Honors English Composition (3) Modes, styles, and rhetoric of expository writing. Offered as needed. Prerequisite: Permission of the English Department.

ENG 191 Argumentative Writing (3) Study and practice of development, organization, logic, and rhetoric of argumentative writing. Fall semester. Prerequisite: ENG 101 or recommendation of English department.

ENG 205 Advanced Composition (3) Study and practice of making expository writing answerable to the writer's voice, purpose, and audience. Spring semester. Prerequisite: ENG 101 or equivalent.

ENG 212 Cinema (3) Structure, technique, and values in film. Film classics and contemporary movies will be studied with written responses required. Spring semester. Prerequisite: ENG 101 or equivalent.

ENG 215 Creative Writing: Fiction (3) Supervision for writing short stories, seminar discussion of class members’ work, and individual conferences. Alternate years.

ENG 216 Creative Writing: Poetry (3) Supervision for writing poetry, seminar discussion of class members' work, individual conferences. Alternate years; next offered Fall 2010.

ENG 221 Newspaper (1) Workshop course for The Cabinet staff. Credit-no credit basis. Every semester. Repeatable. Prerequisite: ENG 101 or equivalent.

ENG 223 Literary Magazine (1) Workshop course for The Chimes staff. Credit-no credit basis. Every semester. Repeatable.

ENG 232 Introduction to Rhetoric (3) Survey of rhetorical theories with applications to writing and analysis of texts. Alternate years. Prerequisite: ENG 101 or equivalent.

ENG 241 Newswriting (3) Fundamentals, including ethical principles and actual practice of newspaper reporting and writing. Alternate years; next offered Fall 2010. Prerequisite: ENG 101 or equivalent.

ENG 242 Editing (3) Basic concepts in editorial writing, news editing, headlining, and layout and designing applicable to any publication. Spring semester. Prerequisite: ENG 101 or equivalent.

ENG 254 The Novel (3) Study of the characteristics of the novel as a genre, its historical development, and cultural influences on it. Alternate years, next offered Spring 2011. Prerequisites: ENG 101 or equivalent and either ENG 112 or permission of the instructor.

ENG 255 Survey of Dramatic Literature (3) Historical survey of dramatic literature with attention to cultural contexts, literary qualities, and theatrical attributes. Alternate years; next offered Spring 2012. Prerequisites ENG 101 or equivalent and HUM 103.

ENG 266 Biblical Literature (3) Study of the literature of the Bible with attention to how literary genre, style, traits, and rhetoric can enrich and guide understanding the Bible. Other literature directly influenced by the Bible may also be included. Alternate years; next offered Fall 2011. Prerequisites: ENG 101 or equivalent, BIB 113, and HUM 103.

ENG 268 Faith and Literature (3) Study of how literature deals with issues of religious faith as it bears on life and culture. Varying focus from offering to offering. Literature by non-Christians may be included. Alternate years; next offered Spring 2011. Prerequisites: ENG 101 or equivalent and HUM 103.

ENG 271 British Literature to the Restoration (3) Survey of British literature from its beginnings through the 1660's. Fall semester. Prerequisite or Corequisite: ENG 112.

ENG 272 British Literature from Restoration to Victorian Period (3) Survey of British literature from 1660's to 1840. Spring semester. Prerequisite or Corequisite: ENG 112.

ENG 273 British Literature Victorian to Present (3) Survey of British literature from 1840 to present. Fall semester. Prerequisite or Corequisite: ENG 112.

ENG 281 American Literature to Civil War (3) Survey of American literature from indigenous oral literature to Civil War. Spring semester. Prerequisite or Corequisite: ENG 112.

ENG 282 American Literature from Civil War to Present (3) Survey of American literature from the Civil War to the present. Fall semester. Prerequisite or Corequisite: ENG 112.

ENG 291 Masterpieces of World Literature (3) Study of the concept of masterwork through examining examples from Western literature and challenges to that concept in examples of post-colonial literature. Spring semester. Prerequisites: ENG 101 or equivalent and ENG 112.

ENG 305 Special Topics in World Literature (3) Study of literature either translated into English or written in English expressing a non-Western outlook. Course focus will change from time to time. Repeatable. Fall semester. Prerequisites: ENG 112, ENG 113 and as designated at time of offering.

ENG 311 Technical Writing (3) Writing for technology and industry in a variety of modes. Practice in oral presentation. On demand or summers. Prerequisite: ENG 101 or equivalent.

ENG 320 Tutoring Writing (2) Instruction and practice of tutoring writers needing guidance in developing writing skills. Work in Writing Center is integral to course. Fall semester. Prerequisite: ENG 101 or equivalent.

ENG 328 History of the English Language (3) Development from Indo-European sources to contemporary forms. Yearly; fall semester. Prerequisite: ENG 101 or equivalent.

ENG 335 Literature of Minorities (3) Study of literature of one or related minorities in American society—for example, African American, Native American or Asian American literature. Variable topics. Repeatable with different topic. Alternate years; next offered Spring 2012. Prerequisites: ENG 101 or equivalent and ENG 112.

ENG 336 Studies in Women's Literature (3) Study of literature written by women from a variety of historical and cultural contexts. Alternate years; next offered Spring 2011. Prerequisites: ENG 101 or equivalent and ENG 112.

ENG 343 Feature Writing (3) Study of and practice in feature writing or other special areas of journalism. Alternate years; next offered Spring 2012. Prerequisite: ENG 101or equivalent.

ENG 344 Publishing (3) Study and practice of desktop publishing, other technology of publication, and approaches to being accepted for publication. Alternate years; next offered Spring 2011. Prerequisites: ENG 101 or equivalent and consent of instructor.

ENG 351 Shakespeare (3) Representative histories, comedies, and tragedies. Yearly; Fall semester. Prerequisites: ENG 101or equivalent and HUM 203.

ENG 374 Special Topics in British Literature (3) Study of a major author or related authors, or of a theme, issue, or other topic from British literature. Variable topics. Yearly; fall semester. Prerequisites: ENG 112, ENG 113, and as designated at time of offering.

ENG 382 English Grammars (3) Traditional and modern, including generative grammar. Every semester.
ENG 384 Special Topics in American Literature (3) Study of a major author or related authors, or of a theme, issue or other topic from American literature. Variable topics. Spring semester. Prerequisites: ENG 112, ENG 113, and as designated at time of offering.

ENG 394 Special Topics in Writing (3) Study and practice of various kinds of writing, creative and/or informational. Topics change from offering to offering. Alternate years; offered Fall 2011. Prerequisites: ENG 101, ENG 205 and as designated at time of offering.

ENG 405 Teaching of English - Secondary (3) Methods course required of all students seeking certification to teach English on the secondary level. Focus on approaches appropriate to middle and high school students. Field experience required as part of the course. Fall semester. Prerequisites or Corequisites: Junior standing; minimum of 15 credit hours of work in literature; three credit hours of writing beyond ENG 101; ENG 205 or ENG 328; must be taken concurrently with EDU 414.

ENG 413 Teaching English as a Second Language (3) Theory, principles, and practice of teaching English language skills to non-native speakers of English. Alternate years; next offered Spring 2011. Prerequisites: ENG 101 or equivalent; ENG 328 or ENG 382 or LIN 219 or permission of the instructor.

ENG 489 Majors Seminar (3) Focused seminar on literary, historical, or cultural topics designated in current class schedule. Research and presentation of a major paper. English and writing majors only. Every semester. Repeatable. Prerequisites: ENG 112, ENG 113, and junior standing.

ENG 491, 493, 494, 495, 499 (See page 19)

## ENGLISH AS A SECOND LANGUAGE • ESL

ESL 310 Academic Oral Communication (2) Development of listening and speaking skills in an academic setting. Classroom emphasis placed on video lectures, note-taking, discussions, and presentation on academic topics. Offered on demand.

ESL 320 Academic Writing (2) Development of a clear, natural, and effective written communication in English. Awareness is placed on style, levels of usage, and the difference between written and spoken language. Vocabulary enrichment through readings and compositions. Offered on demand.

ESL 330 Academic Reading (2) Development of strategies for academic reading, speed, and overall comprehension of authentic material. Vocabulary enrichment through readings and discussions of academic texts. Offered on demand.

ESL 410 Academic Oral Communication (2) Development of the ability to listen to authentic, fluent speech in lectures and note taking. Classroom emphasis placed on video lectures, note taking, discussions, and presentations on academic topics. Offered on demand.

ESL 420 Academic Writing (2) Development and refinement of a clear, natural, and effective written communication in English. Emphasis on academic grammar and rhetorical skills needed for English 101. Awareness is placed on style, levels of usage, and the difference between written and spoken language. Vocabulary enrichment through readings and compositions. Offered on demand.

ESL 430 Academic Reading (2) Development of strategies for academic reading, speed, and overall comprehension of authentic material. Vocabulary enrichment through reading and discussion of advanced academic texts. Offered on demand.

## GREEK • GRK

GRK 101, 102 Elementary Hellenistic Greek I, II $(3,3)$ The purpose of these courses is to enable students to begin reading and translating the Greek New Testament on their own. Emphasis is placed upon understanding the basic grammar, developing a working vocabulary and basic translation methods. Fall and spring semesters; alternate years. Prerequisite: GRK 101 is a prerequisite for GRK 102.

GRK 201 Intermediate Hellenistic Greek (3) The purpose of this course is to enable students to gain greater proficiency in reading and studying the Greek New Testament. Elements of advanced Greek grammar and syntax are introduced through translation assignments. Basic methods of New Testament Greek exegesis are also demonstrated and practiced. Fall semester, alternate years. Prerequisite: GRK 102 or permission of the instructor.

GRK 202 Biblical Greek Exegesis (3) A continuation of Intermediate Hellenistic Greek. It involves the further development of reading facility and the application of exegetical principles and methods. Spring semester, alternate years. Prerequisite: GRK 201 or permission of the instructor.

GRK 491, 493. 494, 495, 499 (See page 19)

## HEBREW • HEB

HEB 101, 102 Elementary Biblical Hebrew I, II (3, 3) An introduction to Biblical Hebrew grammar, with reading in simple Biblical prose texts. Fall and Spring semesters, alternate years. Prerequisite: HEB 101 is a prerequisite for HEB 102.

HEB 201 Intermediate Biblical Hebrew (3) Continuation of Hebrew grammar and syntax with emphasis upon reading selected Biblical passages on an intermediate level. Fall semester, alternate years. Prerequisite: HEB 102 or permission of the instructor.

HEB 202 Biblical Hebrew Exegesis (3) Development of reading facility in the Hebrew Bible, with application of basic exegetical principles. Spring semester, alternate years. Prerequisite: HEB 201 or permission of the instructor.

HEB 491, 493, 494, 495, 499 (See page 19)

## HISTORY • HIS

HIS 150 Survey of American History (3) An overview of major themes in American history from the pre-Colombian period to the present. Designed for non-history majors, especially elementary education. Special attention given to Pennsylvania history. Spring semester, every year.

HIS 201 Introduction to Historical Studies (3) An introduction to the practice and discipline of history, ranging from research and writing to more theoretical concerns. Spring semester, every year.

HIS 220 Europe I: Ancient through Medieval (3) Survey of ancient and medieval history, from fifth century BC to the 14th century AD, tracing major ideas, institutions, and events and the shift from Mediterranean to European culture. Offered on a four semester rotation.

HIS 221 Europe II: 1500-1815 (3) From the Renaissance through the Napoleonic period. The formation of modern Europe. Offered on a four semester rotation.

HIS 222 Europe III: 1815-Present (3) Nineteenth and twentieth century Europe. Offered on a four semester rotation.
HIS 250 U.S. I: Colonial (3) Survey of the colonial era from the earliest settlements to the adoption of the Constitution. Special emphasis on Pennsylvania history. Offered on a four semester rotation.

HIS 251 U.S. II: $19^{\text {th }}$ Century (3) Development of the nation from the early republic through the 1890 's. Special emphasis on Pennsylvania history. Offered on a four semester rotation.

HIS 252 U.S. III: $20^{\text {th }}$ Century (3) Survey of major themes in US history since 1900. Special emphasis on Pennsylvania history. Offered on a four semester rotation.

HIS 260 Latin America (3) Colonial developments from discovery to independence and problems of the republics from independence to the present. Alternate years.

HIS 270 Middle East (3) History of Islam, noting especially its impact on political behavior of the Islamic countries and including the Arab-Israeli confrontation. Alternate years.

HIS 280 Modern Africa (3) History and politics of Sub-Saharan Africa, with emphasis on the interaction of indigenous and Western influences. Alternate years.

HIS 290 Modern Asia (3) Historical and political aspects of the people, particularly in China and Japan, especially since 1800. Alternate years.

HIS 300 Special Surveys (3) Specialized surveys of various historical topics not otherwise listed in the catalog. Examples would be philosophy of history, Pennsylvania history, history of the British Empire, women's history, etc. May be repeated with different topics. Offered every year.

HIS 321 19th Century European Intellectual History (3) A study of the main ideas that influenced European thought up to World War I, including Romanticism, nationalism, liberalism, socialism, imperialism, etc. Special attention will be paid to thinkers and movements that shaped the religious life of Europe in the 19th century. Offered periodically.

HIS 331 20th Century Western Intellectual History (3) Intellectual trends in the Western world since World War I: intellectual underpinnings of communism, nazism, and fascism; the emergence from colonial dependence and the rise of a global world; scientific and philosophical movements; existentialism, postmodernism, and current trends; all with emphasis on a Christian understanding of the world. Offered periodically.

HIS 342 Gilded Age and Progressive Era (3) This course provides an in-depth investigation of the years from 1877 through the 1920s, a time when many of the structures that define modern America originated. Industrialization, immigration, settlement of the West, social and national political reform, urbanization, Jim Crow-ism, the end of traditional Native American lifestyles, and New Manifest Destiny are among the topics explored. Alternate years.

HIS 351 U.S. Foreign Policy (3) Survey of the history of American foreign relations with particular emphasis on the period 1898 to the present. Investigates the ideas, decisions, personalities, and ideological underpinnings that have shaped and defined US foreign policy. Alternate years.

HIS 361 American Religious History (3) A survey of American religious history from the pre-Colombian period through the present. Alternate years.

HIS 371 United States Cultural History (3) An exploration of overarching themes in American cultural history, including marriage and family, consumerism, political culture, and sport. Alternate years.

HIS 381 History of Britain (3) Overall view from earliest times to the present, with special emphasis on the unique developments that distinguish British history from continental history. Offered periodically.

HIS 391 History of Russia (3) An overall consideration of Russian history, with emphasis on the modern period and the distinctive features of Russian history and culture. Offered periodically.

HIS 401 Selected Themes in History (3) Specialized reading and writing within a subfield. Examples: French Revolution, capitalism and its American critics, genocide, Stuart Britain, the Israel-Palestine conflict. Repeatable with different topics. Prerequisite: junior or senior standing or permission of the instructor.

HIS 421 Senior Seminar (3) A seminar on a topic or theme of the instructor's choosing, involving intensive engagement with historiographical literature as well as original research. Every fall. May be replaced by SSC 403 for Education majors only.

HIS 422 History and Theory (1) A reading course on theory and methodology, including readings on the intersection of Christian faith and the doing of history. Every fall. Prerequisite: senior standing.

HIS 491, 493, 495, 499 (See page 19)

## HONORS • HON

HON 101, 102 Book Discussion: "Freedom" $(1,1)$ This course explores from a Christian perspective, the many dimensions, or levels of significance, this term carries (e.g. personal freedom, moral/ethical freedom, political freedom, artistic freedom, intellectual freedom, religious freedom, spiritual freedom, etc.) Fall semester. Prerequisite admission to Freshman Honors Program. Spring semester. Prerequisite for HON 102: HON 101, admission to Freshman Honors Program..

HON 201 Book Discussion "Calling" (1) This course explores from a Christian perspective, the many dimensions, or levels of significance, the term "calling" carries (e.g., personal calling, vocational calling, religious calling, and spiritual calling, etc.) Prerequisite admission to Sophomore Honors Program. Offered every semester.

HON 301, 302 Integration of Faith, Learning, and Scholarship, Part I, II $(3,3)$ This course explores the general philosophical and methodological issues, questions, problems and (not least) opportunities arising within a Christian perspective and approach to the professional academic enterprise. Fall semester. Prerequisite Admission to Young Scholar's program. Spring semester. Prerequisite for HON 302: HON 301. Admission to Young Scholar's program.

## HUMAN SERVICES • HSV

HSV 201 Introduction to Human Services (3) This course provides an overview of the human services profession, its history, values, goals and practices. Ethical and philosophical issues involved in providing human services to those in need will be explored. Every semester.

HSV 202 Human Diversity (3) This course surveys human diversity in terms of race, ethnicity, gender, and social class in contemporary American culture. The effects of oppression and prejudice will be explored on individuals and groups, as well as evaluating the consequences of social policy aimed at alleviating discrimination. Implications for the practice of human services will be discussed. Every semester.

HSV 215 Human Services: Foundations and Calling (2) This course assists students in developing foundational competencies essential for success in the human service major. Content includes the exploration of calling and the integration of worldview and human services. Skills related to the theoretical and the applied constructs of the field will be introduced. Fall semester.

HSV 230 The Family System in Context (3) This class will consider the dynamic family in social context. Different theories and topics such as marriage, parenting, communication, conflict and economics will be discussed. The Biblical model of creation, fall and redemption will be the context for the class. Fall semester.

HSV 301 Social Welfare Agencies and Policies (3) This course surveys the history and current development of systems designed to serve those in need. Agencies oriented to meet the needs of special populations (e.g., the aged, children and youth, rural and urban groups) will be explored and the policies influencing their development will be critically analyzed. Fall semester. Prerequisite: HSV 201.

HSV 302 Program Evaluation for Human Services (1) This supplemental course will explore agency field experience from the vantage point of administrative program evaluation. Work in this course will allow students to advance their knowledge and skills doing program administration and applied research through program evaluation in human services settings. This course will be taken with HSV 303 and with/or subsequent to PSY 205/MAT 105. Prerequisites: HSV 201, 202, and PSY 201. Fall only.

HSV 303 Agency Field Experience (3) The course is designed to afford students 90 hours of supervised field experience in diverse human services settings. Students will complete an agency rotation supplemented by weekly class discussion. Emphasis is placed on the integration of theoretical constructs and field observations. Every semester. Prerequisite: HSV 201 and HSV 202. HSV majors only.

HSV 305 Counseling and Helping Skills I (3) This course is designed to prepare the student for practice in human services agencies through the development of culturally sensitive helping relationships. Emphasis is placed on enhancing communication skills, developing interview techniques, and learning basic group skills and group interactive patterns. Every semester. Prerequisite: HSV 201 or PSY 201. HSV majors and minors only.

HSV 307 Generalist Practice, Model, and Theory (3) This course is a continuation of HSV 305 and is designed to further advance the student's practice skills. Emphasis is placed on identifying client strengths, problem-solving, preparing case plans for individuals and families, and community and organizational interventions. Spring semester. Prerequisite: HSV 201 and PSY 201.

HSV 401 Senior Seminar (3) This course is offered in conjunction with the internship experience. It acts as a capstone course for the major. Students will be given the opportunity to consider their worldview, the Christian worldview and a Christian response to the discipline and issues of human services. The course acts as a preparation for the professional career launch of a student. The course is taken in conjunction with the field experience and is designed to support the
student' s field experiences. Must be taken with HSV 450. Every semester. Prerequisites: HSV 201, HSV 202, HSV 305, HSV 307, PSY 201, PSY 250, and SOC 201. HSV majors only.

HSV 405 Community Intervention and Special Populations (3) An advanced human services course that builds on micro level counseling and helping, as well as, generalist practice knowledge and skills in addressing the human services needs of at-risk groups. Special attention will be given to church based and Christian strategies used to care for at-risk groups. Spring semester. Prerequisites: HSV 201, HSV 305, HSV 307, PSY 313 and junior standing.

HSV 450 Field Experience (6) This course affords the student an opportunity to apply knowledge and theories obtained in course work to actual field experience. The student will be supervised in the agency placement by both an on-site coordinator and the Geneva placement adviser. A total of 20 hours per week will be spent on site during a 15-week semester period. Prerequisite: Enrollment depends on an application process that is administered by the HSV program director. One requirement is that the student have received credit for the following seven courses: HSV 201, HSV 202, HSV 305, HSV 307, PSY 201, PSY 250, and SOC 201. A second requirement is the acquisition of necessary governmental clearances. There are other requirements as well. Admission is only by application and eligibility. Complete application instructions and materials are available from the instructor. Students must have attained senior standing. Must be taken with HSV 401. Every semester. HSV majors only.

HSV 292, 491, 493, 495 (See page 19)

## HUMANITIES • HUM

HUM 103 Invitation to the Humanities (3) An introduction to the Humanities disciplines and intellectual endeavor through a study of selected topics focusing on central concerns of our cultural heritage. One lecture and two discussion meetings each week. Every semester.

HUM 203 Beauty, Freedom, and Truth (3) This course explores three dominant themes within western cultural history as expressed through the literary, visual, and musical arts. Diverse viewpoints on the nature of beauty, freedom, and truth from the classical period through the enlightenment will be discussed and evaluated from a Christian perspective. One lecture and two discussion meetings each week. Every semester. Prerequisite: HUM 103.

HUM 300 Western Humanities in the Italian Context (9) This course explores western culture as expressed in the literary, visual, and musical arts in historical and intellectual context from origins in Judeo-Christian and Greco-Roman traditions through the $20^{\text {th }}$ century. Particular emphasis will be placed on the study of ancient Rome, the Renaissance, the development of Christianity in Western Europe, and on the Italian context. The course will make extensive use of field trips in Rome and across Italy. Offered every semester in Rome. Prerequisite: HUM 103.

HUM 303 Perspectives: Faith, Culture, Identity (3) Survey of the movement of Western culture in the 19th, 20th, and 21st centuries through diverse perspectives on faith, culture, and identity as evidenced through literature, visual art, music, and in historical and intellectual contexts. Special attention will be given to contemporary issues and values. One lecture and two discussion meetings each week. Every semester. Prerequisites: HUM 103 and HUM 203.

HUM 304 Focused Options in Humanities (3) Various courses designed to deepen a student's understanding of some particular aspect of the art, history, thought, music, and literature of either Western or non-Western cultures. Courses will be offered through a variety of departments in the college and will be cross-listed as HUM 304 courses. Every semester. Prerequisites: HUM 103 and HUM 203 or consent of instructor; the instructor may choose to set additional prerequisites. NOTE: Students may take more than one course numbered HUM 304, so long as they do not repeat a course previously taken for credit.

## HUMANITIES BOOK DISCUSSION • HMN

HMN 491 Book Discussion (1) Reading and discussion of one book. Several options each semester. Attendance at weekly group discussions required for credit. Enrollment limits determined by each instructor. Repeatable with different books. Subject to eight credit hour limitation. Graded credit-no credit.

## INDEPENDENT • IDM

IDM 495 Independent Major Tutorial (1-3) Preparation of a paper, project, or completion of an internship directed by a faculty adviser that serves as a culminating experience.

## LANGUAGES AND CULTURES • FLC

FLC 101, 102, 201, 202 (1-4) Designed to provide enrichment in the language and culture of a designated country and its people. Courses will cover the basic aspects of pronunciation, grammatical structures, and cultural knowledge needed for using the language in conversing. Vocabulary development will be an integral part of the course. Courses may include such languages as Chinese, Japanese, Russian, and others. Some of these courses may be offered using a nontraditional format such as individualized courses using audiovisuals. Offered on demand. No prerequisite for FLC 101; FLC 101 is a prerequisite for FLC 102.

FLC 201, $202(3,3)$ A continuation of the material included in FLC 102. Emphasis will be on speaking, understanding, vocabulary development and cultural knowledge. Reading and writing skills will be introduced. Some of these courses might be offered using a nontraditional format such as individualized courses using audiovisuals. Offered on demand. Prerequisite: FLC 102.

## LINGUISTICS • LIN

LIN 219 Introduction to Linguistics (3) Basic elements of phonology, morphology, syntax, and semantics. Fall semester.
LIN 220 Applied Linguistics (3) Issues and topics in historical linguistics, sociolinguistics, and psycholinguistics. Spring semester. Prerequisite: LIN 219.

LIN 384 Special Topics in Linguistics (3) Study of a major topic in theoretical or applied linguistics. Variable topics. Alternate years; next offering Fall 2010. Prerequisites: LIN 219 and others as designated at time of offering.

## MATHEMATICS • MAT

MAT 095 Algebra (3) A study of basic algebraic concepts and skills that underlie college-level mathematics and are required background for core science and statistics courses. This course does not count toward graduation but does for financial aid and full-time enrollment. The course may not be taken as an audit. Every semester.

MAT 101 College Algebra (3) A rigorous review of Algebra I and II with some geometry. Every semester. Prerequisite: Math SAT score at least 470, Math ACT score at least 19, or MAT 095.

MAT 102 Trigonometry (3) A detailed study of trigonometry. Spring semester. Prerequisite: MAT 101 or Math SAT 470 or Math ACT 19. Students may take only one course for credit from MAT 102 and 120.

MAT 105 Elementary Statistical Methods (3) Introduction to data collection, descriptive statistics, basic concepts of probability, inferential methods, hypothesis testing, correlation, and regression. Every semester. Prerequisite: Math SAT score at least 470, Math ACT score at least 19, or MAT 095.

MAT 120 Precalculus (3) Designed to prepare students for Calculus I. Review of algebraic manipulations, functions, trigonometry, radicals, complex numbers, logarithms, and conic sections. Five hours per week. Fall semester. Prerequisite: Math SAT score at least 500, Math ACT score at least 21, MAT 101 or MAT 102. Students may take only one course for credit from MAT 102 and 120.

MAT 130 Discrete Math (3) Number systems, set theory, graph theory, induction, Boolean algebra. Spring semester.
MAT 161 Calculus I (4) Limits, differentiation, related rates, analytic geometry, max/min problems, basic integration, area, volume of revolution, and applications. Five hours per week. Every semester. Prerequisite: Math SAT score at least 570, math ACT score of at least 25 and experience with trigonometry; or MAT 120 Precalculus or MAT 102 Trigonometry.

MAT 162 Calculus II (4) Exponential and logarithmic functions, inverse trig functions, L'Hopital's rule, techniques of integration, infinite series, series expansions, and polar coordinates. Five hours per week. Every semester. Prerequisite: MAT 161.

MAT 261 Calculus III (4) Multivariable calculus; introductory linear algebra and differential equations; partial derivatives; multiple integrals. Five hours per week. Every semester. Prerequisite: MAT 162.

MAT 307 Linear Algebra (3) Vectors, vector spaces, matrices, determinants, linear transformations, eigen values. Fall semester. Prerequisite: MAT 261.

MAT 309 Introduction to Abstract Algebra (2) Groups, rings, integral domains, and fields. Spring semester. Prerequisite: MAT 130.

MAT 310 Introduction to Real Analysis (2) Real numbers, sequences, limits, continuity, and derivatives. Spring semester. Prerequisite: MAT 162.

MAT 350 Numerical Methods (3) Solution of linear and nonlinear equations, polynomial interpolation and extrapolation, numerical differentiation and integration, ordinary differential equations, matrix operations. Fall semester. Prerequisites: CSC 101 and MAT 261.

MAT 403 Methods of Teaching Math (4) Study of the methods and procedures needed to teach high school algebra and geometry. Fall semester. Prerequisites: math education major, MAT 261, EDU 380, and EDU 382.

MAT 404 College Geometry (3) Euclidean Geometry developed from basic postulates. Fall semester. Prerequisites: math education major and MAT 261.

MAT 405 Differential Equations (4) Methods of solution and application of ordinary differential equations. Spring semester. Prerequisite: MAT 162.

MAT 407 Advanced Topics (3) Combination of complex variables and calculus-based statistics. Fall semester. Prerequisite: MAT 261.

MAT 409 Partial Differential Equations (3) Sturm-Liouville Theory. Fourier analysis and boundary value problems. The heat and wave equations. Spring semester. Prerequisite: MAT 261. Prerequisite or co-requisite: MAT 405.

MAT 491, 493, 494, 495, 499 (See page 19)

## MECHANICAL ENGINEERING•MEE

MEE 321 Mechanics of Deformable Bodies (3) A review and continuation of the deformable body topics in EGR 211. Bending, torsion, direct stress and transverse shear in beams; curved members; thin-walled members; combined stresses; experimental stress analysis using strain gauges; theories of failure; deflection of beams; statically indeterminate problems; elastic stability of columns; energy methods; introduction to plasticity. Fall semester. Prerequisites: MAT 261, EGR 211.

MEE 324 Kinematics of Mechanisms (3) Displacement, velocity, and acceleration analysis of linkage and cam mechanisms by graphical and analytical methods. Synthesis of mechanisms. Gears and gear trains. Fall semester, alternate years (next offered fall 2007). Prerequisites: MAT 261, EGR 214.

MEE 403 Mechanical Component Design (3) Statistical concepts, reliability, factor of safety, fatigue, and wear failure. Applications to the design of shafting, bearings, gears, springs, and fasteners. Design optimization. Fall semester. Prerequisite: MEE 321.

MEE 405 Finite Element Methods (3) Formulation of discrete elements for structural and stress analysis. Variational theorems. Isoparametric elements. Heat conduction, elastic stability, vibration, fluid flow, magnetics, and optimization problems solved using professional software. Spring semester. Prerequisite: MEE 321 or consent of the instructor.

MEE 410 Mechanical Vibration (3) Steady state and transient analysis of systems with a single or multiple degrees of freedom. Modal analysis and dynamic response of structures and machines. Introduction to the dynamics of continuous systems. Spring semester. Prerequisites: MAT 261, MAT 405, EGR 214.

MEE 416 Design of Thermal Systems (4) Applications of thermodynamics, fluid dynamics, and heat transfer to the design of thermal systems such as power plants, solar energy systems, and HVAC systems. Extension to complex cycles, heat exchangers, and radiation heat transfer. Includes individual and team design problems as a major component. Spring semester. Prerequisites: EGR 315 and either EGR 314, PHY 307, or CHM 307.

MEE 417 Fluid Mechanics (4) Fluid properties and hydrostatics. Open channel flow, compressible flow, pipe flow and pipe networks, pumps and turbo machinery, boundary layers, dimensional analysis, similitude, lift and drag. Fall semester. Prerequisite: EGR 315.

MEE 418 Reacting Systems (3) Equilibrium and kinetics of reacting flows. Techniques involved in choosing a reactor to produce a desired product. Possible applications include chemical synthesis, combustion systems, incineration, and pollution control systems. Taught concurrently with CHE 401. Fall semester. Prerequisites: CHM 221 and either EGR 314, CHM 307, or PHY 307.

MEE 491, 493, 494, 495, 499 (See page 19)

## MINISTRY • MIN

MIN 201 Cultural Anthropology (3) General survey of cultural anthropology in which different cultural groups are studied. Particular emphasis is placed on the implications of cultural variations for Christian missions. Offered every other year.

MIN 202 Holistic Spiritual Formation (3) An introduction to principles and practices of spiritual formation, including its nature, history, means, and outcomes. Offered periodically.

MIN 205 Christian Education in the Local Church (3) Emphasis on principles essential for participation. Fall semester, alternate years. Prerequisite: BIB 113 or permission of the instructor. Offered periodically.

MIN 210 Evangelism (3) A study of the theology, the theory and the practice of evangelism. Prerequisites: BIB 112 and BIB 113.

MIN 215 Methods of Teaching the Bible (3) The focus of this course is on the structure, knowledge base, and practical application of teaching the Bible in a variety of ways and settings. Prerequisites: BIB 112 and BIB 113. Spring semester.

MIN 219 World Christian Movement (3) Selected types of societies, both past and present, that represent varying levels of cultural development. Cross-cultural and Christian approach to case studies. Offered periodically.

MIN 220 Topics in Christian Ministry (3) Exposure to new approaches and strategies to ministry. Repeatable. Prerequisites: BIB 112, BIB 113, and sophomore standing.

MIN 224 Missions and Culture (3) This course aims to prepare students for Christian service in societies that differ significantly from their own. Students will research the features of a distant people group from historical and worldview perspectives, and consider how missionaries to such places can adapt themselves to significantly different cultural circumstances while bringing the heart of the gospel into such situations.

MIN 225 Globalism and Multiculturalism (3) This course explores the phenomenon of globalism in the $21^{\text {st }}$ century as the world's "global village" is being forged by the inexorable forces of instantaneous communication, international transportation and trans-national corporations. Students will learn how these forces are influencing various aspects of life, from religion to politics to family dynamics, and will be encouraged to consider Christian responses to these forces.

MIN 240 Introduction to Student Ministry (3) Consideration of the Biblical basis for a relational ministry, of the current high school scene, and of the leadership qualities, techniques, and insights required for working with adolescents, both the uncommitted and the church-nourished. Fall semester.

MIN 241 Methods of Student Ministry (3) This course exposes students to the practical foundational elements and methods necessary for student ministry. Newsletters, club talks, PowerPoint, field research, simulations, and cohort presentations make up major portions of the class itself. Spring semester.

MIN 242 Children's Ministry (3) This course will address the need to understand developmentally appropriate practices for infants through elementary-aged children as a prerequisite for effective children's ministry. Students will develop an understanding of how children learn and the appropriate ways to initiate, nurture, and sustain faith responses as children physically and cognitively grow and develop. A special focus will be given to the importance of family and church connections. In addition, students will learn how to communicate Biblical truths to children. Spring semester, alternate years.

MIN 243 Principles of Leadership (3) This course is a class that instructs students on the essential principles of being an effective leader, particularly as it pertains to the calling and giftedness of the student. In addition, study is directed to classical definitions of leadership, classical studies in leadership, and what leadership looks like in a postmodern culture.

MIN 244 Urban Student Ministry (3) The purpose of this course is to encourage in students a love for God's cities and people of the cities by giving students an introduction to urban youth, culture, dilemmas, and ministry models. Spring semester.

MIN 245 Christian Community Development (3) This course is designed to help students learn how to interact with the broader community especially in the attempt to develop resources necessary for ministry to youth. Fall semester, alternate years.

MIN 246 Campus Ministry (3) This course will address these key topics: developing essentials in Biblical theology; defining the mission of campus ministry; confirming calling; understanding college student development; and identifying effective approaches to campus ministry. Spring semester, alternate years.

MIN 250 Theory and Practice of Experiential Education (3) Comparing adventure education with traditional education, this class studies components of experiential education history, modalities, philosophy and effective Christian ministry. It includes practical pieces of how to develop, administer, and conduct experiential activities for a variety of settings including classrooms, youth groups, colleges, retreats, and camps. Fall semester.

MIN 253 Challenge Course Facilitation (3) This class will develop in students the ability to assess a group's need and design a challenge course experience to facilitate the necessary experience for growth. It will instruct and develop the personal and technical skills necessary to lead experiences that grasp meaning at its depth for various ages and purposes. Spring semester.

MIN 292 Ministries Practicum (2) Opportunity to gain hands-on experience in missions, student ministry or pastoral ministry in a guided setting. Prerequisite: Student Ministry or Christian Ministries major, sophomore standing.

MIN 319 Contemporary Adolescent Culture (3) A survey of the last 40 years of American history investigating social trends and technology that have changed the nature of adolescence and must be considered as we attempt to evangelize teenagers.

MIN 430 Senior Seminar (3) This course is dedicated to pulling all of the preliminary course work of the prior three years into one cohesive whole. Students will produce their own student ministry manual-as well as complete, in a practical manner, their ability to articulate a wholistic, theoretical, and Biblical approach to student ministry.

MIN 493 Student Ministry Internship (9) Mentored student ministry experience in a church or ministry setting taken in one or two semesters.
MIN 292, 491, 493, 494, 495, 499 (See page 19)

## MUSIC APPLIED • MUA

MUA 105 Beginning Piano for Adults (1) Introductory class lessons for non-music majors who have no prior experience at the piano. Offered periodically.

MUA 106 Class Piano I (1) Designed for music majors who, having little or no previous experience with piano, need to acquire the skills necessary to pass the piano proficiency examination. Every semester. Repeatable.

MUA 107 Class Piano II (1) Continuance of preparation for the piano proficiency examination. Every semester. Repeatable. Prerequisite: completion of MUA 106 with "B" or better, or equivalent proficiency.

MUA 121, 122 Private Lessons (1-2) Private instruction in voice, piano, organ, or other instrument. Music majors take two half-hour lessons per week for two credit hours; others take one lesson per week for one credit hour. Every semester.

MUA 153 Class Percussion (1) Class instruction in the fundamentals of all basic percussion instruments with emphasis on snare drum rudiments. Spring semester.

MUA 154 Class Strings I (1) Class instruction in fundamentals of string playing with emphasis on violin. Ranges, bowing, fingering, the use of violins in ensembles. Fall semester.

MUA 155 Class Brass I (1) Fundamental class instruction in brass instruments with emphasis on trumpet, including transposition, technique, and uses in combinations. Fall semester.

Geneva College

MUA 156 Class Voice (1) Class instruction in voice, tone production, posture, diction, interpretation; emphasis on teaching proper development and use of the voice. Required of music education majors. Spring semester.

MUA 157 Class Woodwinds I (1) Class instruction in the fundamentals of the clarinet, including transposition, technique, and uses in combinations. Fall semester.

MUA 193 Functional Guitar (1) Guitar class open to all students who desire to learn guitar. Every semester.

MUA 206 Keyboard Harmony I (1) Emphasis on harmonization and preparation for student teaching. Every semester.
MUA 207 Keyboard Harmony II (1) Continuation of MUA 206 and preparation for the piano proficiency examination. Every semester.

MUA 220 Accompanying (2) Principles and problems of accompanying, with practical experience. Repeatable. Two semesters required of applied majors in keyboard instruments. Every semester, on demand. Prerequisite: major or concentration in a keyboard instrument.

MUA 221, 222 Private Lessons (1-2) Continuation of private study in voice or instrument. Every semester.
MUA 254 Class Strings II (1) Class instruction in viola, cello, and bass. Fall semester. Prerequisite: MUA 154 or consent of instructor.

MUA 255 Class Brass II (1) Class instruction in baritone, French horn, trombone, tuba. Spring semester. Prerequisite: MUA 155 or consent of instructor.

MUA 257 Class Woodwinds II (1) Class instruction in saxophone, flute, oboe, bassoon. Spring semester. Prerequisite: MUA 157 or consent of the instructor.

MUA 321, 322 Private Lessons (1-3) Continuation of private study in voice or instrument. Every semester.
MUA 421, 422 Private Lessons (1-3) Continuation of private study in voice or instrument. Every semester.
MUA 451 Senior Recital (1) Presentation of the degree recital. Every semester. Required of all music education and music performance majors. Prerequisites: senior standing, approval of music department. In the semester in which the senior recital is performed, the student will register for MUS 451 (1) and MUS 421 or MUS 422 (1-2).

## MUSIC • MUS

MUS 108 Music Theory I (2) Review of music fundamentals. Intervals, scales, triads, inversions, voice leading. Meets three hours per week. Fall semester.

MUS 109 Music Theory II (2) Diatonic harmony of the common practice period. Meets three hours per week. Spring semester. Prerequisite: MUS 108.

MUS 120 English and Italian Diction for Singers (2) Required of performance majors in voice, recommended for music education majors with voice concentration. Spring semester, alternate years as needed.

MUS 121 German and French Diction for Singers (2) Required of performance majors in voice, recommended for music education majors with voice concentration. Spring semester, alternate years as needed. Prerequisite: competence in International Phonetic Alphabet (IPA).

MUS 128 Aural Skills I (2) Basic concepts in sight-singing, ear training, and eurhythmics. Fall semester.
MUS 129 Aural Skills II (2) Continuation aural musicianship. Spring semester. Prerequisite: MUS 128.
MUS 201 Survey of the Music Industry (3) An introduction to the multi-faceted business of music, organization and operation of music manufacturing and publishing, wholesaling, retailing, and personal and concert management. Career opportunities in music business. Guest speakers and field trips give first-hand acquaintance with the industry. Fall semester alternate years.

MUS 208 Music Theory III (2) Chromatic harmony; studies in analysis of $18^{\text {th }}$ and $19^{\text {th }}$ century music. Fall semester. Prerequisite: MUS 109.

MUS 209 Music Theory IV (2) Harmonic and stylistic practices of $19^{\text {th }}$ and $20^{\text {th }}$ century composers. Spring semester. Prerequisite: MUS 208.

MUS 210 Introduction to Music Literature (2) Survey of basic genres (e.g., symphony, opera) and styles of music; development of listening skills. Includes attendance at live performances. Fall semester. Required of all music majors and minors.
*MUS 212 Marching Band (1) The Geneva marching band is a high energy program that also includes majorettes, drill team, and a silk line. Three rehearsals per week. Fall semester.
*MUS 213 Symphonic Band (1) Performing great compositions of yesterday and today. Two rehearsals per week. Spring semester.
*MUS 214 Instrumental Ensemble (1) Brass, jazz, woodwind, or string instruments, depending on student interest and availability. One and a half to two hours per week. Membership by audition only. On demand.
*MUS 215 Genevans (1) The college a cappella choir shares the pleasure and excitement of great choral music. Two rehearsals per week. Membership by audition only. Every semester.
*MUS 216 Vocal Ensemble (1) Selected members of the Genevans. Membership by audition only. One and a half to two hours per week. Every semester.
*MUS 218 Handbell Ensemble (1) The excitement and beauty of music for bells, rung on the college's six-octave set of English handbells. Every semester.

MUS 228 Aural Skills III (2) Continuation of sight-singing and ear training; identification of more complex chords. Fall semester. Prerequisite: MUS 129.

MUS 229 Aural Skills IV (2) Continuation of sight-singing and ear training. Spring semester. Prerequisite: MUS 228.
MUS 231, 232 Fundamentals of Conducting I, II $(1,1)$ Basic beat patterns, starting and stopping, rudiments of score preparation. Every semester. Required of all music education and music performance majors. Prerequisite for MUS 231: MUS 108. Prerequisite for MUS 232: MUS 231.

MUS 301 Legal and Ethical Aspects of Music Business (3) Applications of business law to music (contracts, copyright, etc.), and consideration of ethics in art and entertainment. Fall semester alternate years.

MUS 310 Music History I (3) A survey of the historical development of Western music from Antiquity through the Baroque; consideration of bibliography and research technique in music. Fall semester. Prerequisite: music majors must have completed MUS 210.

MUS 311 Music History II (3) A survey of styles, composers and performers in Europe and America from the Classical period through the present. Spring semester. Prerequisite: music majors must have completed MUS 210.

MUS 320 Literature of Piano/Voice/etc. (2) Survey of the standard literature for the major instrument, including listening and analysis. Required of music performance majors. Spring semester, on demand. Prerequisite: three to four semesters of college-level study in the applied instrument.

MUS 333 Conducting: Vocal and Instrumental (3) Advanced patterns and principles of directing an ensemble; score preparation; interpretation; rehearsals; programming, organization, etc. Practical experience in conducting laboratory or regular ensembles. Spring semester. Prerequisites: MUS 109 and MUS 232.

MUS 350 Elementary School Music (2) Music in relation to the growth needs of children; development of varied musical experiences through good literature, games, rhythm band instruments, recorders, Orff instruments, autoharp, and recordings. Fall semester.

MUS 351 Secondary School Music (3) The place of music in the education of adolescents; materials and activities for the music program; the changing voice; literature, instrumental arranging, and methods of presentation. Includes in-class demonstrations and observation in the public schools. Spring semester.

MUS 370 World and Popular Music (3). Survey of non-Western, non-art, and commercial music, with special emphasis that will vary. Spring semester. Required of music education majors; elective for all other students. Non-music majors who take this for the humanities HUM 304 must have completed HUM 303.

MUS 420 Pedagogy of the Piano/Voice/etc. (2) Methods of teaching on the major instrument, selection of materials, design of a teaching plan, and practical experience under observation. Required of music performance majors. Fall semester, on demand. Prerequisite: six semesters of college-level study in the applied instrument.

MUS 491 Special Topics (1-3) See page 19. May be repeated for different topic.
MUS 493 Internship (credit variable) Supervised internship in music or audio business, church music, etc. On demand.
MUS 491, 493, 494, 495, 499 (See page 19)
*See limitation explained on page 20.

## PHILOSOPHY • PHI

PHI 100 Logic (3) An introduction to the tools and terminology of logic, various argument forms and common fallacies, including hands-on practice analyzing arguments, in order to improve reasoning skills fundamental to effective communication and critical thinking in every academic discipline and avenue of life. Every year.

PHI 110 Introduction to Philosophy (3) Designed for the student with little or no background in philosophy, this course surveys the history of Western philosophy, key philosophers, and important philosophical concepts that continue to shape our perception of our selves, our world and God. Philosophy concerns the fundamental questions of life, study, worship and work-What is reality? How do I know what I know? and What is right and good? Every year.

PHI 112 Ethics (3) Examines the nature of ethical principles, theories and judgments as these have developed historically and provides an analysis of various ethical problems such as abortion, capital punishment, euthanasia, etc.. Attention is given to several major Christian ethicists such as Augustine, Aquinas and Kierkegaard. Suitable as an introduction to philosophy. Spring semester.

PHI 113 C. S. Lewis (3) Explores Lewis' thought through philosophical themes such as, What is morality? What is love? What does it mean to be human? Why does suffering occur? Students in this course will read The Screwtape Letters, The Four Loves, Mere Christianity, The Abolition of Man, and The Problem of Pain.

PHI 200 Plato (3) Studies Plato's major works, including The Republic, Meno and the Apology. This course examines Plato against the backdrop of Pre-Socratic philosophy and engages the central questions raised in philosophy, such as the nature of the good, and of knowledge. Approved HUM 304 option. Fall semester, alternate years.

PHI 202 Augustine (3) Explores the context and content of Augustine's major works, including The City of God, The Confessions and On the Free Choice of the Will. Students learn how to closely read a philosophical text closely and interpret it, applying it to the history of Christendom. Early church fathers and major philosophical figures from late antiquity are examined to provide a context for Augustine's work. Approved HUM 304 option. Fall semester.

PHI 204 Aristotle (3) Studies Aristotle's major works, including Nicomachean Ethics, Metaphysics and Politics. Students explore the development of virtue in Aristotle's thought and engage in an analysis of the aspects of critical reasoning. Attention is given to subsequent philosophical developments in Ancient Greece and Rome, such as Stoicism. Approved HUM 304 option. Spring semester, alternate years.

PHI 206 Aquinas (3) Explores the contours of Aquinas' thought in Summa Theologica. Attention is given to understanding his views in light of their background in Aristotle. This course examines Aquinas against the background of the major figures in medieval philosophy such as Anselm, Bonaventure and Duns Scotus. Approved HUM 304 option. Spring semester, alternate years.

PHI 214 Business Ethics (3) Nature of ethical principles and analysis of problems, such as pollution, whistle-blowing, and employee rights.

PHI 300 History of Modern Philosophy (3) Explores the development of the theory of knowledge and ethics in the early modern period through an analysis of continental rationalism (Descartes, Spinoza, Leibnitz), British empiricism (Hobbes, Locke, Berkeley, Hume) and the American theologian/philosopher Jonathan Edwards. Approved HUM 304 option. Fall semester, alternate years.

PHI 301 Kant (3) Explores the work of this great $19^{\text {th }}$ century philosopher in the areas of metaphysics, religion, morality and the theory of knowledge. Students read primary texts and examine Kant's influence on the subsequent development of philosophy.

PHI 304 Nineteenth-Century Social Philosophers and Pragmatism (3) Explores the early pragmatist philosophers, C.S. Peirce, William James, and John Dewey through their major philosophical texts. Pragmatism is a uniquely American variety of philosophy that has shaped American cultural life, its educational and political experience. It was the dominant position in the first half of the $20^{\text {th }}$ century and has had a significant revival in modern philosophical discourse principally through the work of neopragmatist Richard Rorty, whose essays will be examined as well.

PHI 305 Contemporary Philosophy: The Analytic Tradition (3) Examines the work, influence, and value of key philosophers in $20^{\text {th }}$-Century analytic philosophy, such as Bertrand Russell, Ludwig Wiggenstein, J.L. Austin, and current contributors in this widespread tradition. Of special interest for students in linguistic, language, literary, communication and biblical studies. Every other year.

PHI 306 Postmodern Philosophers (3) Explores the philosophical antecedents and thought of important contemporary philosophers who represent the philosophical reaction against modernity and the dominance of the Enlightenment paradigm-specifically, Jacques Derrida, Michel Foucault, Jean Francois Lyotard, and Richard Rorty. Additionally considers Christian thinkers' responses to and appropriation of postmodern thought. Of special interest for students in sociology, literature, Christian and student ministry majors. Every year. Approved HUM 304 option.

PHI 307 Women Philosophers (3) Exposes the student to the work of important women philosophers such as Marjorie Grene, Simone de Beauvoir, Hannah Arendt, Simone Weil, and Martha Nussbaum, Lorraine Code, Caroline Simon, and Elenore Stump.

PHI 308 Contemporary Continental Philosophy (3) This course considers major themes of $20^{\text {th }}$ Century Continental Philosophy, through a closer look at the work of important Continental philosophers such as Heidegger and Merleau-Ponty: existence, being-in-the-world, and the lived body. Alternate years.

PHI 309 Kierkegaard and Nietzsche (3) Explores the early foundations of the $19^{\text {th }}$ century philosophical movement called existentialism by examining the two main philosophers in its genesis. Students will read a number of major works by both philosophers including (Kierkegaard) Sickness Unto Death, Fear and Trembling, and Practice in Christianity and (Nietzsche) Thus Spake Zarathustra, Genealogy of Morals, Beyond Good and Evil, as well as some others. This course provides the framework for understanding the critique of modernism by the postmodernists.

PHI 310 Christian Understanding of Life (3) This seminar course introduces students to covenant epistemology: an innovative, biblically compatible holistic, epistemological vision which effectively offers a Christian understanding of life. Students' interactive exposure to a variety of works which shape and imply this epistemology proves to be personally transformational and profoundly practical. Every year. Approved HUM 304 option.

PHI 318 Philosophies of World Religions (3) A study of the major religions of the world including Buddhism, Hinduism, Taoism, Confucianism, Islam and Judaism from the vantage point of a Christian world view. Students explore the question of exclusivity (only one religion is true) and what constitutes a religious experience. Approved HUM 304 option. Fall semester, alternate years.

PHI 353 Philosophy of Science (3) Examines fundamental philosophical questions undergirding and implied by the practice of science, and major positions and debates in contemporary philosophy of science regarding scientific explanation, confirmation, discovery, and the realist or antirealist status of scientific claims. Additional attention will be given to the insights of scientist-turned-philosopher Michael Polanyi, as well as to the implications of Christian commitment for philosophy of science. Of special interest for students in the sciences. Alternate years. Approved HUM 304 option.

PHI 354 Political Philosophy (3) Studies in the variety of political philosophies of the last 300 years including social contract theory, liberalism, Marxism and socialism, tolerance or pluralism by concentrating on the major theories with a view toward contemporary analysis and criticism. Cross-listed as POL 309 and offered periodically.

PHI 355, Philosophy for Theology (3) Explores philosophical developments and discussions which have proven germane and valuable in service to the recent theological enterprise, e.g., hermeneutics, deconstruction, speech act theory, and reformed epistemology. Alternate years.

PHI 356 Knowledge and Reality (3) This course will explore the major theories and issues involved in metaphysics and contemporary epistemology.

PHI 410 Senior Seminar (3) This course is designed for philosophy majors and minors to study a contemporary or historical philosophical topic in-depth. Students will learn to do advanced research in philosophy and will write a major paper in the process. Prerequisite: junior or senior standing.

PHI 430 Philosophy of History (3) Nature of historical knowledge and great speculative theories, such as those of Augustine, Hegel, Marx, and Toynbee with an attempt at a Christian critique. Alternate years.
PHI 491, 493, 494, 495, 499 (See page 19)

## PHYSICAL EDUCATION • PED

PED 101 Physical Education (1) Instruction in, and application of, the fundamental skills, rules, and concepts of various sports and physical activities. Various sections include aerobics, badminton, basketball, golf, tennis, volleyball, racquetball, and weight training. Course syllabi include a more precise description of each section.

PED 103 Physical Fitness (1) Instruction in the role and improvement of health-related components of fitness in conjunction with each student's lifestyle. Special emphasis will be given to proper Christian stewardship of the body, developing an individual fitness program, and understanding the structure and function of several body systems as they are related to fitness.

PED 104 Intercollegiate Sport Participation (1) Beginning in the 2010-11 academic year, an intercollegiate sport-athlete may earn a PED 104 credit for each season of intercollegiate athletic participation, up to four per sport. The first season of participation counts toward the physical education requirement PED 101. The only recognized intercollegiate sports are baseball (men), basketball (women and men), cross-country (women and men), football (men), soccer (women and men), softball (women), tennis (women), track and field (women and men), and volleyball (women).

PED 203 Exercise Physiology (3) The kinesiology aspect of the course examines human motion based on the structural foundations of the body. Attention is given to bone, joint, muscle, connective and nerve structures, and the movement patterns specific to these structures. The physiological aspect of the course will explore the principles involved in human exercise. The weight of the physiological component is the examination of the respiratory, cardiovascular, and muscular factors that affect performance. Attention will be given to the manipulation of these factors to produce higher performance. Alternate Fall semester (even years- 2010).

PED 205 Sport Coaching Practicum (3) The course offers opportunity for coaching minors to develop the knowledge, practical application, and skills necessary to become more proficient leaders in sport. Students' ability will be enhanced and assessed in various coaching and administrative duties. Students should register for this course with the instructor when they are admitted to the coaching minor and remain active until all the requirements are completed. Fall semester.

PED 247 First Aid and Emergency Care (2) Instruction and practice in the prevention, evaluation and treatment of injuries and illnesses that require first aid with certification in standard first aid and CPR. Requires small fee for certification.

PED 255 Athletic Training (3) Instruction in understanding basic muscular skeletal dynamics and how they relate to the care and prevention of athletic injuries. Identify and evaluate common athletic injuries, learn basic skills related to taping, as well as how to use equipment commonly found in athletic training rooms.

PED 301 Psychological and Motor Learning Aspects of Sport Performance (3) An overview and application of psychological and physiological factors which affect sport performance. Content areas include goal setting, motivation and performance factors, arousal-aggression variables, as well as the physiological structures of the human body and their
relationship to sport performance. Prerequisite: PED 103. Cross-listed as SPM 301. Alternate Spring semester (even years2010).

## PHYSICS • PHY

PHY 160 Introduction to Acoustics (3) Practical applications of physical, physiological, psychological, musical, and architectural acoustics. Sound recording, reproduction, and measurements. Wave phenomena, harmonic analysis, and their application to musical scales and instruments, transducers, and reverberation. Techniques and equipment demonstrated. Spring semester. Prerequisite: sophomore standing.

PHY 181, 182 General Physics I, II (4, 4) Mechanics, properties of materials, thermodynamics, electromagnetism, light, sound, atomic and nuclear structure. Problems require knowledge of algebra. PHY 181 in Fall semester, PHY 182 in Spring semester. Three lectures and one laboratory per week.

PHY 201, 202 College Physics I, II $(4,4)$ Mechanics, heat, and sound the fall semester, electricity, optics, and modern physics the spring semester. Three lectures and one laboratory period per week. PHY 201 in fall semester, PHY 202 in spring semester. Prerequisite: MAT 162, which may be taken concurrently with PHY 201. PHY 201 is a prerequisite for PHY 202.

PHY 250 Observational Astronomy (3) A quantitative survey course in general astronomy with an observational laboratory component for students in the technical majors. The students will master the operation of the LX200 telescope at the Geneva College observatory and its associated CCD camera to complete a series of observing projects. Prerequisite: MAT 161. Offered on demand at department's discretion.

PHY 301 Classical Mechanics (3) Principles and techniques of non-relativistic mechanics. Includes motion of a point mass in a vector force field, potential theory, conservation laws, rotating coordinate systems, and the Lagrangian and Hamiltonian techniques, with applications to planetary motion, scattering, rigid body motion, forced oscillations, and continuous media. Fall semester, even numbered years. Prerequisites: PHY 202 and MAT 405.

PHY 303, 304 Advanced Physical Measurements I, II (1-3) An intermediate course in experimental physics. Equipment available for work in atomic physics, nuclear physics, solid state physics, thermodynamics, optics, electromagnetic fields, and gravitation. Areas of experimentation selected by the student in consultation with the instructor. Special experiments available for future science teachers. Prerequisite for PHY 303: PHY 182 or PHY 202 or consent of the instructor. Prerequisite for PHY 304: PHY 303.

PHY 306 Optics (3) Begins with the electromagnetic wave solutions of Maxwell's equations. Includes matrix formulation of paraxial geometrical optics, wave propagation, polarization, interference and diffraction, stimulated emission and lasers, Fourier transform spectroscopy, and non-linear optics. Spring semester, even numbered years. Prerequisite: PHY 202.

PHY 307 Thermodynamics (3) Includes the laws, kinetic theory of gases, and introduction to classical statistical mechanics. Fall semester. Prerequisites: PHY 202 and CHM 221 and MAT 162. Cross-listed as CHM 307.

PHY 333 Introduction to Quantum Mechanics (3) Introduces the basic concepts of quantum mechanics and develops the mathematical techniques used in studying quantum mechanical systems. Prerequisite: PHY 201.

PHY 405, 406 Methods of Theoretical Physics I, II $(3,3)$ Applications of wave mechanics to atomic phenomena, matrix elements, perturbation theory and variational methods, and relevant mathematical techniques. Other topics may include molecular bonds, classical and quantum statistical mechanics, relativistic electrodynamics, quantum theory of scattering, nuclear structure, and elementary particles. PHY 405 on demand, PHY 406 on demand. Prerequisite: PHY 202 or consent of the instructor.

PHY 408 Modern Physics (3) Introduction to wave mechanics and its application to the hydrogen atom, atomic structure and spectra, and electrons in solids and semiconductors. Other topics may include molecular bonding, special relativity, nuclear models, and crystal structure. Spring semester, odd numbered years. Prerequisites: PHY 202 and MAT 261.

PHY 491, 493, 494, 495, 499 (See page 19)

## POLITICAL SCIENCE • POL

POL 151 American Government (3) Structure and operation of the national political institutions of the United States. (Political Science majors may not use this course to fulfill the social science core requirements.) Fall semester.

POL 203 International Relations (3) Introduction to the theory of international politics and the foreign policies of the major powers. Offered every other year. Spring semester.

POL 211 Comparative Politics (3) Introduction to the theory and practice of comparative politics; case studies of key political systems. Offered every other year. Spring semester.

POL 253 Parties, Elections, and Interest Groups (3) Development and present role in America. Brief investigations of other party systems for comparative analysis. Offered every other year. Prerequisite: POL 151 or consent of the instructor.

POL 254 State and Local Government (3) Overview of structure and function in the United States, followed by exposure to city, county, borough, and township governments in the area. Offered periodically.

POL 255 Congress and the Presidency (4) An introduction to processes, powers, functions, limits, and interactions of Congress and the presidency. Offered periodically.

POL 305 Constitutional Law (3) A consideration of the development of American constitutional law and its relevance to political processes today. Offered alternate years. Prerequisite: POL 151 or one course in American history.

POL 309 Topics in Modern Political Thought (3) Studies in the variety of political theories during the last 300 years, including contract theories, Marxism and socialism, and liberalism, concentrating on one or two major theories. Alternate years, may be repeated with different topics. Cross-listed with PHI 354.

POL 312 History of Political Thought (3) Reading and discussion of major works of political theory from Plato to the present. Alternate years. Prerequisite: sophomore standing.

POL 313 Democratic Political Thought (3) A consideration of both "normative" and "non-normative" democratic theory and evaluation of these in the light of the Scriptures. Offered periodically.

POL 331 Foreign and National Security Policy (3) This course introduces students to key concepts and basic theories about foreign policy, national security, and homeland security in the United States and other countries, as well as current debates such as just war vs. pre-emptive war, privacy vs. security, and sovereignty vs. alliances and international organizations. Offered every other year. Prerequisite: POL 203 or consent of instructor.

POL 332 Topics in Comparative Politics (3) This course introduces students to diverse regions of the world and to key issues in comparative politics. This course will focus on a different region or group of nations each time it is offered, including the Middle East, Latin America, the former Soviet Republics, and comparative democratic governments. Students will look at key issues for that region in areas such as economics, culture, politics, military affairs, and religion. Offered every other year.

POL 341 Politics of Global Economics (3) This course introduces students to key concepts and basic theories about how institutions affect global economics, particularly in trade, finance and investment, debt, development, and fiscal and monetary policy. Those institutions include not only governments, but non-governmental organizations, multinational corporations, and multilateral treaty organizations. Offered every other year. Prerequisite: POL 203 or consent of instructor.

POL 342 Topics in International Relations (3) This course introduces students to contemporary key issues in international relations. Each time it is offered, the course will focus on a different topic, such as transnational crime and terrorism, international law and organizations, intelligence, or public health and the environment. Students will learn about the underlying issues for each subject, the main actors involved, and the relevant public policy strategies utilized by the United States and other nations. Offered every other year.

POL 352 Great Issues in Politics (3) Some significant questions asked by philosophers in the study of politics and some ways they have been answered. Writings of Christian political theorists included. Prerequisites: successful completion of BIB 112 and BIB 113; HUM 103, HUM 203, and HUM 303 and junior or senior standing (completion of 60 credit hours). Offered every semester.

Geneva College

POL 360 Public Administration (3) Introduces students to the literature, theories, and key concepts that underlie the academic study of public administration. It also aims to familiarize students with some of the core areas of the practice of public administration, including personnel, budgeting, and decision-making and policy evaluation. Offered every other year. Prerequisite: POL 151 or consent of instructor.

POL 361 American Public Policy (3) Process at national level, using currently significant policies as case studies. Offered periodically. Prerequisite: POL 151 or consent of instructor. Alternate years.

POL 421 Senior Seminar (3) A review of academic political science, focusing on its relevance to the student as a Christian, as a professional, and as a citizen. Required of political science majors. Spring semester. Prerequisite: senior standing.

POL 491, 493, 494, 495, 499 (See page 19)

## PSYCHOLOGY • PSY

PSY 201 Introduction to Psychology (3) Problems, principles, and methods to serve as a part of a liberal education and as preparation for more advanced work in psychology, or for professional study: development, motivation, emotion, learning, intelligence, personality, and abnormal behavior. Every semester.

PSY 202 Biological Bases of Behavior (3) Neuroanatomical and neurophysiological foundations and neurological and chemical events underlying sensory processes, learning, motivation, emotion, motion and mental disorders. Fall semester. Prerequisite: PSY 201.

PSY 205 Psychological Statistics (3) An introduction to the methods used by social scientists to understand data. Covers descriptive statistics, basic probability theory, and inferential statistics. Proficiency in high school algebra is assumed. Fall semester. Prerequisite: PSY 201 and passing of a mathematics pretest.

PSY 206 Orientation to Psychology (3) This course focuses on the essential skills necessary for success in the psychology major. Broad issues such as introduction to the integration of worldview and psychology, as well as, vocation and career planning will be discussed. Specific skills relevant to the psychology major such as reading and writing psychology works and using statistical software packages will be addressed. Fall semester

PSY 207 Research Methods in Psychology (3) An introduction to psychology as a scientific process. The course covers philosophy of science, designing and performing experiments and quasi-experiments, ethics in experimentation, interpreting data using inferential statistics, and scientific writing. Spring semester. Prerequisites: PSY 201 and PSY 205 or permission of the instructor. Spring semester.

PSY 211 Educational Psychology (3) Psychological principles and theories applied to teaching. The coverage of psychological variables that influence teacher functioning in the classroom, the role of human development, learning, instructional models, motivation, classroom management and discipline, the nature of and the response of teachers to exceptionality, and ethnic, racial, and social differences in schools. Every semester. Prerequisites: PSY 201 and sophomore standing. Cross-listed with EDU 211.

PSY 229 Lab - Developmental (3) This directed experience will focus on current research and methodologies. Readings will relate to the theoretical and methodological approaches addressed in class. Students will develop and implement research protocols, as well as, collect, analyze and interpret data. Alternate years. Prerequisite: PSY 201, PSY 205 and PSY 207.

PSY 250 Life Span Development (3) Covers developmental patterns of human beings from conception to death all in the context of God's created order. Physical, cognitive, social, emotional, and spiritual aspects of development will be considered. Research methods and approaches will be explored as well. Fall semester. Prerequisite: PSY 201.

PSY 251 Child Development (3) Development and behavior from conception through middle childhood, including genetic influences, developmental processes, and psychological processes related to physical, linguistic, social, intellectual, emotional, and personal development. Fall semester. Prerequisite: PSY 201.

PSY 252 Adolescent Development (3) Physiological, psychological, social, developmental, and educational aspects from the beginning of puberty to the attainment of maturity. Spring semester. Prerequisite: PSY 201.

PSY 253 Adulthood and Aging (3) Processes and principles of development in adulthood and in aging. Consideration of normal life stages, social and physical changes, and the special issues associated with geriatric populations. Spring semester. Prerequisite: PSY 201.

PSY 260 Tests and Measures (3) Methods, techniques, and instruments, including methods of construction, critical analysis, laboratory experience. Fall semester, alternate years. Prerequisite: PSY 201 and PSY 205.

PSY 313 Abnormal Psychology (3) Empirically-based principles of psychopathology. Surveys classical "mental illnesses" from various perspectives. Every semester. Prerequisite: PSY 201.

PSY 320 Conditioning and Learning (4) Experimental and theoretical approaches to the principles of learning as seen in classical conditioning, operant conditioning, verbal learning, etc. Special emphasis placed on the principles of reinforcement. Laboratory experiences with control of animal behavior and field experiences in the observations of behavior included. Fall semester, alternate years. Prerequisites: PSY 201, PSY 205 and PSY 207 or permission of the instructor.

PSY 325 Cognitive Psychology (4) Investigates human mental processes. Covers the current research and theory of cognition, perception, representation of knowledge, models of memory, problem solving, reasoning, use of language, cognitive development, and intelligence. Spring semester. Prerequisites: PSY 201, PSY 205 and PSY 207.

PSY 326 Emotion and Memory (3) This course will provide an overview of biological, cognitive, and social factors involved in how emotion effects memory. Some specific areas of study include: what brain areas mediate memory and emotion, how emotion can lead to either improved or impoverished lifespan issues such as what capacity do infants and children have to remember emotional experiences, and how does old age or mental illness effect memory. Spring semester, alternate years. Prerequisite: PSY 201.

PSY 329 Lab-Basic Processes (3) This directed experience will focus on current research and methodologies. Readings will relate to the theoretical and methodological approaches addressed in class. Students will develop and implement research protocols, as well as, collect, analyze and interpret data. Fall semester, alternate years. Prerequisite: PSY 201, PSY 205 and PSY 207.

PSY 404 Personality Psychology (3) An introduction to theory and research into personality and motivational processes. Covers psychodynamic, trait, social learning, and social cognitive approaches to the field. Both historical and current thinking will be stressed. Spring semester. Prerequisites: PSY 201, PSY 205, and PSY 207.

PSY 405 Psychology of Gender (3) This seminar focuses on psychological theories and research pertaining to both genders and similarities and differences. Relevant topics will include discussion of biological bases and socialization bases of gender roles, family issues, workplace issues, and sexuality. Fall semester, alternate years. Prerequisite: PSY 201.

PSY 406 Psychology of Prejudice (3) This seminar focuses on both classic and current research in the realm of prejudice and prejudice reduction. Issues will include: What is prejudice? How is it related to stereotyping and discrimination? How does identity affect prejudice? What are the consequences of prejudice? How can prejudice be reduced? Fall semester, alternate years. Prerequisite: PSY 201

PSY 408 Social Psychology (3) Social and environmental influences on interpersonal relationships such as friendship, perception, altruism, aggression, conflict, and peacemaking. Spring semester. Prerequisites: PSY 201, PSY 205 and PSY 207.

PSY 411 History and Theories of Psychology (3) Development of important theoretical attitudes, especially the influence of various types of theory. Spring semester. Prerequisite: senior standing as a psychology major.

PSY 423 Psychological Research Literature (1) Readings in current psychological literature. Students will meet one hour per week to discuss a set of articles from a major psychological journal. Students will gain more experience in reading and critiquing psychological research and will be exposed to research across the topic areas in psychology. May be taken up to four times for credit. Spring semester, alternate years. Prerequisites: PSY 201, PSY 205 and PSY 207.

PSY 424 Applied Psychological Research (2). Applied research methodology. Topics to include needs assessment, data analysis, program evaluation, and qualitative research in community settings. Each student in the class will complete an
approved research project under the direction of the course instructor. May be taken up to four times for credit. Spring semester, alternate years. Prerequisites: PSY 201, PSY 205 and PSY 207, junior standing, overall GPA of 3.0 or higher.

PSY 425 Senior Seminar in Psychology (3) A seminar on a current area of research drawn from personality, social, organizational, and cognitive psychology. Critical and independent evaluation of theory and research will be stressed. Fall semester. Prerequisites: senior standing and major in psychology.

PSY 429 Lab - Social (3) This directed experience will focus on current research and methodologies. Readings will relate to the theoretical and methodological approaches addressed in class. Students will develop and implement research protocols, as well as, collect, analyze and interpret data. Spring semester, alternate years. Prerequisite: PSY 201, PSY 205 and PSY 207.

PSY 450 Special Topics in Psychology (3) Specialized courses in psychology not otherwise listed in the catalog. Examples would be persuasion and the psychology of consumerism. May be repeated with different topics. Offered periodically. Prerequisite: PSY 201

PSY 491, 493, 494, 495, 499 (See page 19)

## SCIENTIFIC STUDIES•SCS

SCS 105 Environmental Science (3) Overview of current environmental issues in the context of science and society. The course emphasizes scientific principles, the impact of human activities on the environment, and the role of Christians as stewards of creation. Every semester.

SCS 110 Introduction to the Natural Sciences (4) A study of selected topics in physics, chemistry, and biology that focus on the unifying themes of energy and the method by which scientific theories develop. Proficiency in high school algebra is required, as demonstrated by math SAT score of at least 470, or ACT score of at least 19 , or passing score on algebra placement exam, or passing grade in either MAT 095 or MAT 101. Three hours lecture and three hours laboratory per week.

SCS 201 Astronomy (3) History of modern astronomy, solar system models and orbits, structure of the sun and other stars, stellar development, galaxies, and cosmology, with emphasis on recent discoveries and theories. Fall semester. Prerequisite: sophomore standing.

SCS 215 Earth and Space Science (3) This course incorporates the disciplines of geology, meteorology and astronomy into a holistic study of planet earth. A major goal of the course is to give the student an understanding of the mechanics of God's creation. Every semester, evening school.

SCS 403 Teaching of Science in Middle and Secondary Schools (4) Basic elements of instruction as they apply to the secondary science classroom. Includes the planning, presentation, and evaluation of several types of science lessons. Involves observations in local school district classrooms. Fall semester, evening school.

SCS 495 Independent Study (1-4) (See page 19)

## SOCIAL SCIENCE • SSC

SSC 101 Learning and Transition (1) Information and experiences designed to aid students in their intellectual, social, physical, and spiritual growth. The class should especially help facilitate the transition from high school or work to college, thus promoting success in college.

SSC 210 Crime, Law, and Society (3) This course will provide students with an introductory survey of the basis of American civil and criminal law; key contemporary legal issues; and the processes and institutions of the justice system, including law enforcement, courts, and corrections. Particular attention is placed on the relationship between the law and society's norms, and the relationship of both to Scriptural principles of justice. Offered every other year.

SSC 280 Human Geography (3) Elements of the natural and cultural environment as they affect and are affected by human activities. Offered as needed. Prerequisite: education major or secondary education certification in social studies.

SSC 310 Criminal Justice: Theories and Systems (3) An overview of correction theories and services in the United States and an evaluation of these in light of Biblical principles. Offered every other year.

Geneva College

SSC 348 Methods of Social Science Research (3) Introduction to the logic of the scientific method applied to the social sciences including, theory construction, research ethics, research design, measurement, sampling techniques, data collection devices, and field research. Offered as needed but at least every other year. Prerequisite: POL 151 or SOC 201.

SSC 349 Social Science Statistics (4) The application of statistics to social research including, the use of computers, coding, SPSS, descriptive graphs and statistics, sampling and probability theory, statistical inference and hypothesis testing, cross tabulation and associated bivariate tests, and other statistical tools used in political science and sociological research. Three hours in class and one hour in computer lab. Offered as needed but at least alternate years. Prerequisites: SSC 348 or SOC 320 and satisfaction of college math proficiency requirement.

SSC 403 Social Studies Teaching Methods (4) Explores the various methods for teaching the social studies on the secondary level and involves advance field practice in the high school setting. Fall semester, evening school. Prerequisites: junior standing and 15 credit hours of social studies courses.

## SOCIOLOGY • SOC

SOC 201 Sociological Imagination (3) Develops a way of seeing the social realm sociologically and biblically. Surveys basic sociological concepts as well as identity, stratification, religion, and modernity. Offered every semester.

SOC 220 Social Change (3) A survey of macro and micro social change revolving around the civil rights movement, mediating institutions, neighborhood design, and economic foundations. Offered every other year.

SOC 221 Social Groups and Institutions (3) A study of the foundational theories and practices of group behavior. This is developed in the framework of civic engagement and institutional contexts. Offered every other year.

SOC 225 Sociological Investigation (3) An introduction to social research including epistemology, quantitative and qualitative research, and style formats. Offered every other year.

SOC 242 Criminology (3) The social causes and prevention of crime and the relations between society and the criminal. Prerequisite: SOC 201. Offered every other year.

SOC 251 American Culture Studies (3) An historical and interdisciplinary study of culture including media, literature, and art theory set in a Christian critique of late modernity. Offered every other year.

SOC 254 Seeking Reconciliation: Gender, Class, and Race (3) Central sociological concepts are surveyed and placed in a community context. The course is framed by the Biblical concept of reconciliation. Offered every other year.

SOC 257 Work, Vocation, and Leadership (3) Foundational issues of work and vocation are studied in relation to the emerging field of leadership studies and the Christian notion of calling. Offered every other year.

SOC 300 Special Topics (3) Specialized courses in sociology not otherwise listed in the catalog. Examples would be sociology of the city, the civil rights movement, or new urbanism. May be repeated with different topics. Prerequisite: SOC 201. Offered every other year.

SOC 310 Deviance and Marginalization (3) Investigating the social processes that marginalize individuals and groups due to norm violation and labels them deviant such as addicts, mentally ill, aging or murderers. Prerequisite: SOC 201. Offered every other year.

SOC 311 Sociology of the City (3) Course description unavailable at time of printing.
SOC 320 Theory and Method (3) Methods of social research are studied in the context of the theoretical frameworks from which they emerged and the ends they intend. Prerequisite: SOC 225. Offered every other year.

SOC 346 Sociology of Religion (3) The relationship between religion and society with special attention to the role of the church in American society. Prerequisite: SOC 201. Offered every other year.

SOC 360 Readings in Social Theory (3) An in-depth reading of primary sources of classic and contemporary social theory done in seminar format. Prerequisites: SOC 201, and junior standing. Offered every other year.

SOC 380 Public Scholarship (3) This is an applied research project to be done in conjunction with an existing organization, agency, or ministry where the student's research is conducted in response to an identified problem.

SOC 401 Utopia and Shalom (3) The sociology capstone course surveying the historical quest of human groups for utopia contrasted with the Biblical concept of shalom. Prerequisites: SOC 201 and junior standing. Offered every other year.

SOC 421 Seminar (3) Independent work guided by faculty lectures and class discussion. This course will cover different topics and will only be offered as an elective necessitated by student interest. Prerequisites: sociology major, and junior standing. Offered every other year.

SOC 493 Sociology Internship (3) Field experience or research related to social practice in the community. Students are expected to spend approximately 10 hours per week in this experience. Offered every semester. Prerequisite: junior standing. Offered every other year.

SOC 491, 493, 494, 495, 499 (See page 19)

## SPANISH • SPA

SPA 101, 102 Elementary Spanish I, II $(3,3)$ This two-course sequence is an introduction to the fundamentals of the Spanish language offering opportunity in the classroom, using real-life situations, for the development of abilities in listening and speaking. Reading and writing skills will be conducted primarily outside of class but integrated with the listening and speaking focus of the course. The course is designed for students who have had none to one year of Spanish in high school, or equivalent for SPA 101 (Fall semester), and one and a half to two years or equivalent for SPA 102 (Spring semester). New students will take a placement evaluation during orientation or on the first day of class in order to be placed in the most appropriate level.

SPA 201, 202 Intermediate Spanish I, II $(3,3)$ A two-course sequence that is a continuation of the material learned in SPA 101 and SPA 102. Continued development of the use of the Spanish language in listening and speaking with a further development of reading and writing abilities. Classroom emphasis on listening and speaking. Reading and writing are primarily developed through outside classroom assignments. Writing of guided and original short compositions is an integral part of these courses. These courses are designed for students who have completed three to four years of Spanish in high school or equivalent, or SPA 102 for SPA 201 (Fall semester), or four to five years of Spanish in high school or equivalent, or SPA 201 for SPA 202 (Spring semester). New students will take a placement evaluation during orientation or on the first day of class in order to be placed in the most appropriate level.

SPA 315 Culture and Civilization of Spanish America (3). A survey of the cultural patterns of Spanish America from the pre-Columbian period to the present time. Emphasis is placed on the basic elements of life in Spanish America that have been decisive in forging its culture from the earliest times to the present. Cultural elements: political, geographic, educational, attitudinal, psychological, social, economical, religious, and literary, in addition to the role of Spanish America in today's world and its cultural contributions. Spring semester. Prerequisite: SPA 320.

SPA 319 Advanced Spanish Conversation (3) Development of oral and aural language skills through free and directed class conversation and individually prepared oral presentations. Speaking activities and group discussions utilize readings on current events, cultural issues, and literature. Attention will be given to vocabulary building, pronunciation, fluency, and idiomatic expressions. Fall semester. Prerequisite: SPA 202.

SPA 320 Advanced Spanish Composition (3) Development of a clear, natural, and effective written communication in Spanish. Awareness is placed on style, levels of usage, and the difference between written and spoken language. Vocabulary enrichment through readings, compositions and other exercises. Compositions are based on a variety of topics and include different types of essays. Fall semester. Prerequisite: SPA 321.

SPA 321 Advanced Spanish Grammar (3) Detailed examination of grammatical structures introduced in elementary and intermediate Spanish courses. Students will have practice in oral and written communication using more complex grammatical structures not included in previous courses. Vocabulary enrichment through written compositions, readings, and oral activities. Spring semester. Prerequisite: SPA 202.

SPA 491 Special Study. A seminar on an announced topic related to Spanish. Repeatable for credit with a new topic. Spring semester. Prerequisite: SPA 320.

## SPORT MANAGEMENT • SPM

SPM 101 Introduction to Sport Management (3) Theories and principles of management for sport programs. Introduces students to career opportunities and responsibilities in sport management, as well as basic information on topics such as legal liability, fiscal management, facilities operation, personnel supervision, and public relations. Fall semester.

SPM 201 Legal Issues in Sport (3) Negligence, liability, risk management, product liability, insurance, contracts, equal opportunity, eligibility and control of activities and facilities are topics of study. Prerequisite: SPM 101 or permission of instructor. Alternate Spring semester (Odd years- 2009).

SPM 205 Sport Management Practicum (3) The course offers opportunity for sport management minors to develop the intellectual learning and practical application skills necessary to become more proficient leaders in sport. Professional building experiences will be achieved through interaction with sport managers from different fields. Fall semester.

SPM 206 Governance and Organization of Sport (3) A study of the various agencies that govern sport at the professional, collegiate, high school, and amateur levels. Organizational theory, research, labor relations, and administrative responsibilities in sport will be presented and discussed. Alternate years. Prerequisite: SPM 101.

SPM 301 Psychological and Motor Learning Aspects of Sport Performance (3) An overview and application of psychological and physiological factors that affect sport performance. Content areas include goal setting, motivation and performance factors, arousal-aggression variables, as well as the physiological structures of the human body and their relationship to sport performance. Prerequisite: PED 103. Cross-listed as PED 301. Alternate Spring semester (even years2010).

SPM 302 Facility Management and Design (3) An introduction to the management, planning, and maintenance of facilities for athletics, sport, recreational programs, play fields, buildings, and auxiliary structures. Attention will be given to staffing, security, accessibility, safety, and legal aspects of facility management and design. Prerequisite: SPM 101 or permission of instructor. Alternate Fall semester (odd years-2009).

SPM 401 Sport in American Culture (3) Presentation of sociological dimensions of sport and sport participation and the impact of sport on society in general. Review of related research covering such areas as youth sport, women in sport, professional sport, religion and sport, sport and education, sport and politics, and the effects of sports on the economy. Discussion of various theories (i.e. conflict, critical, etc.) Special attention will be placed on analyzing sport in American culture from a Christian perspective. Prerequisites: SPM 101and junior standing. Alternate Spring semester (even years2010.)

## VISUAL COMMUNICATION • VIS

VIS 201, 202 Design I, II (2-3, 2-3) Creative exploration of basic principles of visual expression for students with or without art background. Six class hours each week. Every semester. May be taken separately and are non-sequential.

VIS 205 Visual Communication Practicum (1) Practical experience. Repeatable with permission of the instructor. Every Semester

VIS 300 Basic Drawing (3) This course will involve the execution of various projects in establishing the foundation and supporting logic of visual communications through theory, practice, both in the supervised studio activities in the classroom as well as outside assignments. Students are expected to practice and experiment with techniques learned in class and developing a body of work that is based on classroom assignments. Fall semester.

VIS 330 Topics in Visual Communication (3-6) Special studies in aspects of expression and communication in visual media. Six class hours each week. Repeatable. Prerequisite: any other course in visual communication concentration.

VIS 491, 493, 494, 495, 499 (See page 19)

## CAMPUS LIFE AT GENEVA

## Academic Advising

Faculty advisers are assigned to all new students during their fall semester at the college. Once a student declares a major, the role of adviser is usually assumed by a faculty member in the student's major department. Though primarily a mentor responsible for counseling with advisees about academic matters and approving course selection at registration time, an adviser may offer information and encouragement relating to summer employment or study, graduate school programs, and occupational or career opportunities. Students are urged to maintain personal as well as professional acquaintance with their advisers.

## Learning and Transition Class

This class is a one-credit hour academic core requirement for all students during the fall semester of their freshman year. Each focus group, consisting of approximately 15 new students, one faculty adviser, and two upper class mentors, meets for an hour each week throughout the fall semester. The focus groups are designated according to academic disciplines, with specifically designated groups for students who have not declared a major at matriculation. This Learning and Transition Class is a graduation requirement for all incoming freshmen and is offered as an option for transfer students.

Transfer students who have earned 12 or more semester credit hours at another college are not usually involved in the summer preview sessions or required to participate in the ongoing learning and transition class, but do participate in a transfer orientation program prior to the beginning of their fall semester on campus.

## Residence Life

Residence Life seeks to provide all resident students opportunities for spiritual and individual growth, maturity, and leadership. This is provided in a safe atmosphere that allows for cooperative community learning and living. These communities are led by professional residence directors and a building team of upper class student leaders including resident assistants.

Students are housed by gender in traditional style residence halls having two students per room, apartment style residences housing four to six students per apartment, or small houses adjacent to the campus. With few exceptions, housing requirements, which are published yearly in the Student Handbook, require students to either live with their parents or guardian or on campus. A wide variety of meal plans are available to all students and are a requirement for resident students.

## Student Activities

## Student Activities Office

The Student Activities Office, located in the Student Center is a division of the Student Development Office. Student activities coordinators, in conjunction with the student activities director and student union, coordinate student organizations and major campus events.

## Geneva College Student Union

The GCSU is the principal student governing body and consists of Student Activities, Student Senate, and Residential Council. The GCSU Executive Officers and Student Activities Coordinators, in conjunction with the Student Activities Director, coordinate student organizations and major campus events.

The Student Union Office is located in the bottom level of the Student Center, where the Senate and Residential Council hold weekly meetings to address the issues and needs of the Geneva College community.

## Student Publications Board

The governing body responsible for all student publications consists of three representatives from The Cabinet; one each from The Chimes, the student union, the faculty, and the administration; and a faculty adviser. The board selects editors, administers the policies, which provide for editorial freedom and responsibility, and gives counsel to each publication.

## Communication Activities

## The Cabinet

The Cabinet is the weekly student publication of Geneva College. Its purpose is to keep the college community informed about campus events, to provide for an open forum for the airing of diverse viewpoints in Christian love, and to stimulate consideration of various issues. The Cabinet also provides an opportunity for students to obtain journalistic experience.

## The Chimes

This literary magazine is compiled from campus entries and published twice a year by a student staff. The editor is elected by the Student Publications Board.

## The Genevan

The Genevan is the annual yearbook publication that reflects the activities and people who make up the Geneva College community during a given school year. Student volunteers work to design and produce the yearbook.

## Drama

The Geneva College Theatre presents several major plays each year. Students from any academic major may audition to perform or apply for technical positions. Play selections range from Shakespeare to musicals to world premieres. Other dramatic activities include independent theatre projects and a one-act play series. Students have the opportunity to accumulate points for membership into Alpha Psi Omega, a national dramatics honorary fraternity.

## Forensics Team

The Geneva College speech team is composed of a group of students who are involved in preparing and presenting interpretive readings and other forms of public address including competitive debate. The team competes against teams from other colleges. This group is affiliated with the National Pi Kappa Delta Honorary Fraternity.

## WGEV Studios

WGEV studios provide students with programming and production experience in radio, television, and the news media.

## Music Organizations

College sponsored groups are formed early each year and offer open auditions to all new students. Other student groups are organized as student interests direct. Faculty directed groups include:

## Symphonic Band

Featuring today's finest symphonic band literature, these musicians perform for college and community audiences during the spring semester of the college year. See MUS 213 (page143).

## Marching Band

The marching band of over 120 performers is featured at all home and a few away football games. Majorettes, flag, and pom-pom squads also are a part of this fall semester organization. See MUS 212 (page 161).

## Jazz Band

This specialized group performs on campus and at limited alumni events during the spring semester.

## New Song

Ministry through music and drama. Travels in the summer; also concerts through the school year.

## The Genevans

A mixed chorus of some 45 voices presents concerts of sacred and secular music at the college and in local communities. The Genevans take an annual spring tour, as well as an international tour every four years. See MUS 215 (page 143).

## Other Ensembles

Vocal ensembles include a male chorus or Madrigal singers and a female group known as the Grace Notes. See MUS 216. Instrumental ensembles include a jazz band, brass choir, woodwind quintet, string quartet and handbells. See MUS 214 and MUS 218 (page 160).

## Athletics

## Intercollegiate Athletics

Geneva College is currently a member of the NCAA Division III and the NCCAA (National Christian College Athletic Association). The college began its provisional membership in the NCAA in the fall of 2007. Full membership will be awarded by 2011. The college is a member of the PAC (President's Athletic Conference).

Men compete in football, basketball, baseball, soccer, cross country and track \& field. Women compete in volleyball, basketball, softball, soccer, tennis, cross country and track \& field.

## Intramural Programs

Intramural sports are open to the entire Geneva community and are conducted under the supervision of the director of intramurals. Athletic competitions traditionally include men and women's basketball, softball, volleyball, soccer, flag football, broomball, and men's deck hockey. Other intramural events may also be planned as time and interest permit.

## Pisgah Program

This discipleship and adventure education program enhances growth through Bible studies and conferences as well as through adventure pursuits. With emphasis in team building and personal growth, students are challenged to connect their learning with their everyday lives. Through relationships with students the Pisgah program desires to nurture learning in all aspects of students' lives and uses challenge courses, rock climbing, backpacking, caving, and wilderness trips as tools to provide powerful alternative learning opportunities.

## Student Organizations

Students with similar interests and skills plan activities together in clubs, each of which has a faculty-approved constitution and a faculty adviser. A complete listing of currently active clubs and campus organizations is on file in the Student Activities Office.

## Faith Development

Although a Christian perspective is fostered in the classroom and in co-curricular programs, there must also be specific encouragement of students to seek the guidance of Scripture as part of personal spiritual growth.

## The Local Church

The college strongly encourages students to worship and be involved with a local church. We believe that the church is the best source of spiritual nourishment and accountability. A listing of local churches is available on-line and in the Center for Faith and Practice.

## Faith Opportunities

The Campus and Community Ministries Office exists to help all members of the Geneva community know and enjoy God and develop a holistic Christian world view as presented in the Foundational Concepts of Christian Education and the college's Mission Statement. We accomplish this through supporting the development of a Biblical world view in all academic programs and co-curricular activities, providing opportunities for personal growth through formal campus gathering, Bible study groups, mentoring relationships, mission trips, service opportunities, and through encouraging participation in a local church.

## Chapel

As part of the educational mission of Geneva College, a weekly devotional time for the college community is conducted on Wednesdays from 10:15-11:00 a.m. This devotional time provides opportunity for the campus to gather together to praise God, hear His Word, and seek His favor and direction. Attendance is mandatory for students and the entire campus community is encouraged to participate.

Students are required to attend 11 chapels and/or convocations each semester. There are 14 chapel opportunities and one academic convocation opportunity each semester. Students may track their attendance on line.

If a student fails to attend the minimum 11 chapels/convocation, they will be fined $\$ 50.00$ for each missed chapel/convocation The fine will be placed on a student's account at the end of the semester.

If students would like to have the fine(s) set aside, they will have one opportunity to attend a group meeting. In addition to attending the group meeting, students will required to (a) listen to the chapel talk(s) and (b) write an acceptable two page single spaced reflection paper for each chapel they have missed.

- Due to scheduling issues, the meeting will only be held on Reading Day. There will be no additional meeting opportunities and no makeup meetings.
- Students will have 10 calendar days from the day of the meeting to submit their reflection papers.
- The paper(s) are due at the close of business on the tenth day.
- If the paper(s) are deemed acceptable the student's fine will be set aside.
- If a paper is deemed unacceptable, the fine will be imposed for that chapel.

Any dispute over Chapel attendance older than four weeks old will not be considered.

## Discipleship Groups and Bible Studies

Small group growth opportunities are an important part of the Geneva experience. As a result, students are encouraged to participate in Bible studies and discipleship groups. While these opportunities are led by both students and faculty, the training of group leaders, and oversight of the programs are the responsibility of the men's and/or women's discipleship coordinators located in the Center for Faith and Practice.

## Mission Trips

A wide variety of mission opportunities are available to the Geneva College student population. While many of these trips are coordinated by students and staff, all college sponsored mission trips must be registered with the Center for Faith and Practice and accompanied by a faculty or staff member. Those interested in coordinating and/or participating in a college sponsored mission trip are encouraged to stop by the Center for Faith and Practice for additional information.

## Service Opportunities

Geneva College offers students the opportunity to put their faith into action through service to the local community. Students may choose to serve in a ministry to senior citizens, to tutor or mentor youth, to participate in social action opportunities, to provide support to a pregnant mother, or to be involved in a home construction ministry. Each year new students participate in a day of service to the local community.

## Career Development

The goal of the Career Development Center (CDC) is to help students seek God's direction for their lives and to further Kingdom building according to God's divine providence. This philosophy is based on the belief that every individual has a responsibility to discover and develop the unique gifts and talents that he or she has been given.

The staff of the CDC seeks to help students explore, follow, and be equipped in their personal calling and life pursuits. The CDC offers personal assessment and career counseling, counsel to help students connect with compatible majors, resources to equip students with career and occupational awareness, opportunities for practical training and preparation for graduate school and the world of work.

To compliment the mission of helping students embrace their calling, the CDC offers services, programs, and resources including:

- Career Direct Inventory (a 30+ page personalized career inventory)
- Personalized career counseling
- Occupational resources
- Internship opportunities
- Graduate school resources
- Job search programs and service

Please see the Geneva College career development web site for more details on events, programs, and services.

## Crossroads: Geneva's Center for Off-campus Study

Geneva students are encouraged to enrich their educational experience through off-campus study. There are both domestic and overseas study and service opportunities. The mission of Geneva's off-campus programs is to foster Biblical justice and service.

Students may study at any one of the Council for Christian Colleges \& Universities-sponsored programs in China, Egypt, Russia, Washington, D.C., Costa Rica, Los Angeles, Australia, Uganda, Oxford, and Martha's Vineyard.

Students also have the option to choose one of Geneva College's sponsored programs in Rome, South Africa, Scotland, Lithuania, and Israel.

## Student Support Services

## International Student Services

The International Student Services Office serves as the administrative component of the college for addressing the needs of international students. The international student services director works with the multi-ethnic student services director to enable students, staff, and faculty to encourage a multi-cultural perspective and appreciation for diversity in order to promote an understanding of the different backgrounds and experiences of people on Geneva's campus and in the world beyond.

The goal of this office is to help students of international origin and those with missionary backgrounds to be as comfortable and successful at Geneva as possible. Clubs and fellowship organizations like the International Student Organization and Mu Kappa have been established to meet the particular needs of these student populations, that are open to all students.

## Multi-Ethnic Student Services Office

The Multi-Ethnic Student Services Office serves the needs of all minority students, which currently include, but are not limited to, African American, biracial, Hispanic and American Indian populations. The office was developed to assess the needs and facilitate the development of the minority students through the sponsoring of educational programs and activities. The director serves as the liaison between the students and the faculty by helping the faculty better understand the cultural needs and issues of the various minority student populations.

The office is intentional in helping students become more involved in college life. Programs such as Bible studies, men's and women's small group meetings, and the Black Student Organization (BSO) have been established to increase the involvement of students in campus life.

## Academic Counseling Center and Educational Support Services (ACCESS)

The Academic Counseling Center \& Educational Support Services Office (ACCESS) provides assistance to students in their quest for academic success. Spiritual, social, and physical issues are addressed as they often impact the learning process. The ACCESS Office, located on the lower level of McKee Hall, Entrance Six, serves as the central resource for Peer Tutoring, Supplemental Instruction, and Disability Services.

## Peer Tutoring

Students who desire tutoring in a particular class should initially seek assistance available from professors and departmental assistants. Peer tutors for many classes are available for one hour per week per class at no charge. Tutors are requested through the ACCESS Office.

## Disability Services

The director of the ACCESS office serves as the liaison for students with disabilities. A student with a diagnosed disability who has met the college's academic standards, and has confirmed their intention to enroll, may request accommodations.

Students who desire accommodation for a diagnosed disability should submit a recent (within the last three years), thorough evaluation on professional letterhead to the Director of ACCESS. The documentation will be maintained in the student's confidential file and will be reviewed as the basis for determining reasonable accommodations. The type of accommodation provided will depend on the needs of the student, the circumstances of the student's classes, and the current resources of the college. Due to limited resources, the college may not be able to provide accommodation for some disabilities.

Students with disabilities are responsible for discussing with their instructors within the first two weeks of each semester the impact of their disability on the classroom and the implementation of the recommended accommodations. Accommodations may vary depending on the nature and essential elements of the class.

If a disability is diagnosed during an ongoing semester, the student should immediately submit documentation to the director of ACCESS who will inform the student's instructors.

Students with disabilities who take courses under the program for continuing education (PACE) may choose to discuss their need for accommodations with the director of ACCESS and are subject to the same protocol as regularly accepted students.

## Medical Services

Geneva is concerned for the health of all its students. After an application for admission has been accepted, the college provides a form for having a medical history recorded by a licensed physician. This information furnishes the basis for health and immunization records to be kept in confidence and used by the college health professionals. It is essential that these completed forms be returned to the admissions office prior to registration for classes or the assigning of a residence hall space.

Geneva College requires all full-time, undergraduate students to carry a basic health insurance policy. In August of each year, all registered students will have a policy purchased for them by the college and charged to their student account. This 12-month policy covers students both on and off campus. Policy brochures are mailed to each new student. Students may opt to waive this purchase, and have the fee removed from their account by submitting proof of other insurance coverage. The college also provides athletic insurance for all athletes and cheerleaders involved in intercollegiate sports. All athletic injuries should be reported to the office of the athletic director.

An infirmary is maintained in McKee Hall with full-time registered nurses on call 24 hours a day during the academic year (late August to mid-May) and a doctor in residence a few hours each week. In addition, the college nurse is on duty at scheduled hours to conduct examinations and provide consultation. The college nurse can make arrangements for appointments with doctors beyond campus when necessary. For students that need hospital care, the Medical Center of Beaver County is about 20 minutes from the campus and Ellwood City Hospital is about 15 minutes from campus. Students are charged standard rates by the doctors and hospital. There is no charge for on-campus visits to the infirmary.

## Campus Parking

A valid parking permit is required before any student or employee may park their vehicle (car, van, truck, moped, and/or motorcycle) on the campus during daytime hours ( $7 \mathrm{a} . \mathrm{m} .-5 \mathrm{p} . \mathrm{m}$.). This permit must be displayed at all times while the vehicle is parked on college property and is to be purchased upon arrival to campus. Permits may be purchased at check-in or from $8 \mathrm{a} . \mathrm{m}$. to $5 \mathrm{p} . \mathrm{m}$. Monday - Friday at the Information Desk on the upper level of the student center. Proof of vehicle registration and a license plate number will be required to complete this registration. Freshman resident student permits cost $\$ 100$. Upperclassmen, commuter students, and graduate students will pay $\$ 50$. Temporary, handicapped, and visitor permits are also available.

Improperly parked vehicles are subject to ticketing and/or towing, and the college is not liable for theft, damage, or vandalism to vehicles on or off college-owned property. All parking information and requirements can be found in the Geneva College Student Handbook.

## Privacy Issues (FERPA)

The Family Educational Rights and Privacy Act (or FERPA) affords students certain rights with respect to their educational records and personal information. The following section specifies Geneva's policies in relation to FERPA.

## Campus Directory Information

Under FERPA, Geneva College has designated certain personally identifiable student information as "directory information." This includes information that may be printed in the annual Campus Directory: name, campus address, campus telephone number, student mailbox number, College email address, permanent address, telephone number and photograph.

Directory information which may be disclosed to others without the student's permission also includes the following items that are not typically printed in the Campus Directory: date and place of birth, actual or anticipated graduation date (which may be identified by membership in the freshmen, sophomore, junior or senior class), major and minor fields of study, actual or anticipated degree(s), participation in officially recognized activities and sports, weight and height (only if the student belongs to an athletic team), dates of Geneva attendance, honors and awards received, current class schedule, and the most recent school previously attended.

The same information may be posted on an Intranet version of the campus directory, which is accessible to members of the College community through the campus network via a personal account with a password.

All designated "directory information" will be printed in the annual Campus Directory. If a student wishes not to have their permanent address and permanent phone number listed, they should complete a Directory Exclusion Form. Forms can be obtained at campus check-in and from the Student Activities Office. Directory Exclusion Forms are due to the Student Activities Office within one week of the start of classes. Once the form is submitted, the designated information will be removed from the Intranet and not printed in the Campus Directory.

## Educational Records

1) A student has the right to inspect and review his/her education records within 45 days from the date the College receives a request for access.
2) A student should submit a written request that identifies the record(s) he/she wishes to inspect to the Registrar, head of academic department, or other appropriate official. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official will advise the student of the correct official to whom the request should be addressed.
3) A student has the right to request the amendment of the education record that the student believes is inaccurate or misleading. A student should write to the College official responsible for the record, clearly identifying the part of the record that they want to have changed, and specify why it is inaccurate or misleading.
4) If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for the amendment. Additional information regarding the hearing procedures will be provided to the student if the right of hearing is granted.
5) A student has the right to consent to the disclosure of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosure without consent.
6) One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests, i.e. if the official needs to review an education record in order to fulfill his or her professional responsibility. A school official is a person employed by the College in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor or collection agent); a person serving on the Board of Trustees or Board of Corporators; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in the performance of his or her tasks.
7) Upon request, the College may disclose education records without consent to officials of another school in which a student seeks to be enrolled.
8) A student has the right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, S.W.
Washington, DC 20202-4605
9) The College may also disclose personal information when a student's health/safety are in jeopardy of if/when a student poses a significant threat to self or others.

## Parental Rights

In order to respect the role of parents, all new students will be asked to sign permission for their educational records to be shared with parents upon request. All inquiries will be made through the Office for Student Development and a written record of such requests will be maintained. Respecting fully the need for students to take responsibility for their own actions, a designated College official will inform the student when and by whom such a request for information has been made.

If a student is a dependent for tax purposes, neither the age of the student nor the parent's status as a custodial parent is relevant. If a student is claimed as a dependent by either parent for tax purposes, then either parent may have access to the child's educational records without the student's consent. A student may petition in writing to the Dean of Students that
information not be disclosed to a specific individual.
For alcohol/controlled substance violations, the College is permitted to disclose information regarding the violation to the parents of any student under the age of 21. If the student is a dependent for tax purposes, the College may disclose the information to the parents without the student's consent regardless of age.

## Campus Buildings

Located on College Hill overlooking the Beaver River, the campus is in a residential area of Beaver Falls. This city of 14,000 is some 30 miles northwest of Pittsburgh on State Route 18, three miles south of Exit 1B of the Pennsylvania Turnpike (I-76), and easily accessible from I-79, I-80, and State Routes 51, 60, and 65. The Beaver Valley Expressway (Route 60) brings the Pittsburgh International Airport within 30 minutes of campus.

Old Main, a three-story structure of native sandstone erected in 1881, contains administrative offices, classrooms, and a chapel containing a Baroque two-manual pipe organ.

The Science \& Engineering Building provides over 60,000 square feet of space for the classrooms, laboratories, and offices in the departments of biology, chemistry, computer science, engineering, mathematics, and physics. Following a full renovation of the building completed in the fall of 2003, the building provides state-of-the-art facilities and equipment for student learning and research in the sciences and engineering

In February 1998, Northwood Hall construction was completed. This 25,000-square-foot facility houses the departments of psychology, counseling and human services, and business, accounting and management, along with classrooms and computer laboratories.

Rapp Technical Design Center. This 8,000-square-foot facility was completed in 2002. It is used by engineering faculty and students for the design and creation of technological products in cooperation with the Center for Technology Development.

McCartney Library building is named in honor of Dr. Clarence Edward Macartney, who Preaching: The Professional Journal for Preachers named as one of the 10 greatest preachers of the 20th century. It is an exquisite collegiate Gothic stone structure, dedicated in 1931, extensively enlarged in 1965, and wired and refurbished in 1998.

The library has nearly 200 seats designed for private and group study; and 18 computer workstations for research purposes. The total collections exceed 400,000 items: general print and microforms; the Coleman political science collection; the Covenanter collection of materials on the Reformed Presbyterian Church of North America (RPCNA), the Scottish Reformation, Reformed Presbyterian history and genealogy; the Macartney collection of the papers, books, and memorabilia of Clarence E. Macartney; the Geneva author shelf, a special collection of publications by Geneva College faculty, alumni, students, staff, and trustees; and the instructional media center collections of extensive holdings in various media formats. The library also provides student word processing services; photocopy services, and computer bibliographic searching via the World Wide Web.

The Buhl Reference Center serves as a portal to the world of reference resources for Geneva College, providing a myriad of reference tools in both print and electronic formats. The center's online resources include 36 databases, featuring full text and citations to journal and newspaper articles, scholarly papers, reference books, encyclopedias, conference proceedings, and other publications, all available from the Library's web site. The print reference collection reflects the breadth of scope in scholarship at the college, containing volumes on topics ranging from human anatomy to fairy tales. The library's online catalog indexes the reference collection as well as main collection books, serials, micro texts, instructional media, and other materials housed in McCartney Library. Librarians provide assistance in the use of these and other information resources through e-mail, telephone, and in person at the Buhl Reference Center.

The Geneva author shelf is a special collection of publications on display in the main entrance; it is supported by a gift from the Helen Patterson Hill endowment.

The West Reading Room has a casual soft-chair reading center where newspapers and some current general magazines and journals may be perused with a cup of gourmet coffee and sometimes sweet treats. Also, college memorabilia is displayed on the walls including Geneva alumnus John Steuart Curry prints. The Helen Fattal Covenanter Collection Exhibit is a
changing display highlighting the contributions of Covenanters (RPCNA). Special readings, literary lectures, and Geneva author book festival programs are held for small groups on the Farra Forum.

The recently refurbished periodicals room on the ground floor has over 800 newspapers, current magazines, and scholarly journals. Compact shelving makes it possible for the college to retain the older non-digitized periodical literature and indexes. The periodicals room shelving is a gift of the Richard I. Smith Estate; Smith was converted through the ministry of Macartney.

McCartney Library is a member of the Keystone Library Network of 18 academic libraries and the State Library of Pennsylvania with holdings of over eight million volumes. The library is an active participant in the Pennsylvania Commonwealth Libraries Access PA computerized catalog project, a computer access and interlibrary sharing partnership of over 2,500 school, public, and academic libraries in Pennsylvania. The library has access to over 56 million items in the international OCLC union catalog, WorldCAT, of over 9,000 libraries.

The Student Center, a building devoted to student services, was dedicated in 1965. The top level features a large lounge with fireplace, a conference room, and the student development offices. The ground level includes the campus store, the mailroom, student mailboxes, duplicating, and a satellite dining area. The lower levels feature a comprehensive fitness center completed in 1998, the student publications offices, and the student union office. Large areas of windows and balconies off the lounge and snack levels on the top two floors afford a panoramic view of the Beaver Valley.

Alexander Hall, a dining room-office complex, provides food for the campus community. The dining area was completely renovated in 1993. The lower level provides offices for admissions, financial aid, alumni relations, institutional advancement, and public relations.

The Merriman Athletic Field Complex was named in 1984 in honor of W. Clair Merriman, M.D., '29, and his wife, Melba Brown Merriman '29. The 9.6-acre site, donated by Armstrong World Industries, is composed of a softball field, an eight-lane track, and a soccer field. The lighted track and soccer complex has seating for 1,500 .

Reeves Field is located on a plot of land donated by the heirs of John T. Reeves. Major renovations to Reeves field have occurred in the last few years, first the synthetic turf which is used not only for football games and practices, but also for intramurals, Physical Education classes, soccer and other varsity team practices, and other college and community functions. In addition there are new bleachers, providing 5,500 seats for spectators, a new score board, and also a beautiful new press box.

Metheny Field house, completed in 1961, was named in memory of Dr. C. Brainerd Metheny. It occupies over a half acre adjacent to Reeves Field, with facilities for physical education, indoor sports, intramurals, and has a seating capacity of over 3,600 for large assemblies and other educational, social, and cultural events. In addition there are offices, classrooms, radio and press facilities, and a weight room. In 1989, the Merriman Gymnasium, named in honor of Dr. and Mrs. W. Clair Merriman, was added to Metheny Field House. This complex contains locker facilities, two racquetball courts, office and storage space, and a multipurpose gymnasium for physical education, intramurals and varsity athletics.

Johnston Gymnasium honors the late Dr. William Pollock Johnston, a former president. The first floor is used as a practice facility for the band.

Degree Completion Program Offices are housed in the former DeAngelis House, 3310 Fourth Avenue.
Alumni Music Hall, purchased for the college by the alumni association, houses the music department.

The Bagpiper Theatre seats 127 persons. Facilities include lighting and sound control booth, scenery room, wardrobe section, dressing rooms, and makeup area.

The Studio Theatre seats 80 to 100 people and is a flexible playing space principally for arena and thrust staging. An ideal place for theatre students to produce their work.

Fern Cliffe, built in 1889 and the original residence of Dr. Macartney, was completely renovated in 1985 and approved as an historical site by the Presbyterian Historical Society. It now houses 12 faculty members' offices and secretarial
support. The two main rooms on the first floor were restored to their original state and display memorabilia from Dr. Clarence Edward Macartney. The Macartney rooms are used for meetings and special receptions.

## Residence Halls

All resident students are housed in single gender facilities. We have two primary types of resident facilities (apartment style and traditional residence halls), supplemented by a variety of smaller houses which are used on an "as needed" basis. All facilities have internet access (some wired, some wireless). Please see the current Student Handbook for complete description of housing policies and procedures.

The college has several traditional residence halls. MEMORIAL HALL, built in 1952 and remodeled in 1998, is a memorial to Geneva faculty, students, staff, and alumni who have served their country in wartime. It has four floors with 56 rooms serving 112 students. PEARCE HALL, named in honor of Dr. M. M. Pearce, former president of Geneva, was opened in 1961, and remodeled in 1999. It also has four floors with 51 rooms serving 102 students. MCKEE HALL, was provided to the college by Mrs. M. E. McKee in 1921 and remodeled in 1998, accommodates 81 students and also contains the John Nave Infirmary and other college offices. CLARKE HALL, opened in 1961 and remodeled in 2003, is named in honor of Dr. Robert Clarke. It has 58 rooms serving 116 students.

There are three apartment-style residence halls. YOUNG HALL and GENEVA ARMS were built by a private developer in 1966 and acquired by the college several years later. Each hall consists of two wings, one for each gender. Together, there are approximately 100 apartment suites that house between three and six students each. Each suite has its own kitchen, bathroom, bedroom(s), and living room. The SCHOOLHOUSE is a former public school building remodeled by a private developer into apartments and then acquired by the college in 1997. It houses 40 students in individual apartment suites.

Additionally, the college owns several other buildings, mostly former single family residences, which provide students the opportunity to live on or near campus in small, residential communities.

## ADMISSIONS PROCEDURES FOR TRADITIONAL UNDERGRADUATES

As a Christ-centered college, Geneva seeks to enroll students who possess not only intellectual ability and moral character but who also identify with the college's mission. Consideration is given to academic achievement consistent with the standards of the college. Admission decisions are rolling and are based upon the completed application, essay, SAT or ACT scores, official transcripts, and academic references.

## New Freshmen Students

## Campus Visits

A personal visit to Geneva is encouraged and highly recommended. Students and their families are welcome to visit Geneva's campus whenever it is convenient. We recommend that you schedule your appointment at least one week in advance with the admissions office to insure a time that is most convenient for you. We suggest that you reserve enough time so that you will be able to meet with the admissions staff, tour the campus, sit in on a class, meet with instructors or even stay over night. When you visit the campus you are a guest of the college and your meals will be provided at no cost to you. Saturday visits are available by appointment only. No visits are available on Sundays.

## Applying to Geneva

Students should apply and be accepted by March 1 for the fall semester and November 1 for the spring semester, particularly for the best opportunity for campus housing and financial aid. Admission, however, is granted on a rolling basis. First-year students can apply anytime after the junior year of high school. First year students must submit the following items in order to be considered for admission:

- Application for Admission-Part one and two
- Application fee of $\$ 40$ (non-refundable)
- Official high school transcripts*
- Academic reference - teacher, guidance counselor, or principal
- SAT or ACT scores-submit scores directly to Geneva College
*The final high school transcript will be considered complete and closed as of the date of the high school graduation, indicated on the transcript. No additional high school transcript will be accepted after the final transcript is received. The graduation date is the date indentified on the final transcript.


## High School Preparation

In grades nine through 12 at least 16 units must have been earned. Graduation from high school or possession of an equivalency diploma is required. Those who do not meet these standards may be admitted under the special requirements explained in the next section. The following are prescribed units for admission:

| English | 4 units |
| :--- | :--- |
| Foreign language (one language) | 2 units |
| Social studies | 3 units |
| Science | 1 unit |
| College preparatory mathematics | 2 units |
| Electives | 4 units |

The electives may be any subjects which are accepted for graduation.
Engineering students should have a unit each of chemistry and physics and four units of college preparatory mathematics including trigonometry or pre-calculus.

## Admissions Tests

The Scholastic Aptitude Test (SAT) or the American College Testing Assessment (ACT) is required for admission from students who are less than four years out of high school or have less than 12 credit hours from another accredited college or university. It is recommended that you take the test during the spring of your junior year or the fall of your senior year of high school. Information about testing centers and dates may be obtained from your high school guidance office or the Geneva College admissions office. An official score report should be sent directly to Geneva College by listing Geneva on the registration form. The school code for the SAT is 2273 . The school code for the ACT is 3578 .
Geneva College

## Math Proficiency

Math proficiency is determined by SAT or ACT score. Proficiency is demonstrated by a math SAT score of 470 or above or math ACT score of 19 or above. For students who matriculate at Geneva College without the supporting documentation provided by either an SAT or ACT math score, demonstration of math proficiency will not be assumed and may be accomplished by the same methods used for those who must demonstrate math proficiency due to low scores. Math proficiency status for international students will determined by the Department of Computer Science, Mathematics, and Physics on a case-by-case basis.

Students entering Geneva College without math proficiency must successfully complete one of the following:

1) Repeat the SAT earning the minimum math score or above
2) Take MAT 095 Algebra
3) Transfer a math course from another acceptable college or university (Note that the course must be part of the algebra-calculus sequence and only courses equivalent to Geneva's MAT 101 or higher are accepted for transfer credit.)
4) Pass the math proficiency challenge exam

The math proficiency challenge exam will be offered by the Department of Computer Science, Mathematics and Physics as follows:

- During each summer preview (new students)
- During fall orientation (new students)
- During spring orientation (new students)
- On the first Monday of the fall semester (new transfers and returning students)
- On the first Monday of the spring semester (new transfers and returning students).

The fee for the challenge exam is $\$ 25$. See the department web site at http://www.geneva.edu/object/math_mpce.html for more information or call the department chair at 724-847-6695. Advance registration guarantees a place during the testing session.

## Advanced Placement

Geneva College may grant college credit for satisfactory completion of a college-level course in a secondary school or for particular scores on an advanced placement examination of the college Entrance Examination Board. Placement and college credit are determined by the registrar and the chairperson of the appropriate academic department. AP score reports should be sent to the Geneva College admissions office.

## Credit by Examination

Prior to or during the first 12 months of attendance at Geneva, a student may receive course credit or exemption by passing a comprehensive examination if and only if such an examination has been approved to be offered by the department chair. The eligible courses are determined by the department in which they are offered and the examination may be taken only once for each course. The examination fee is $\$ 75$. If credit is desired, there is an additional fee of $\$ 50$ per credit. Credit and a letter grade must be obtained if the course is in the student's major or in the core requirements. The grade for electives may be any letter grade or credit-no credit as determined by the instructor. Upon receiving the receipt for payment and a memo from the instructor recording the grade, the credit hours are entered on the transcript.

Geneva College awards credit for some CLEP tests. Contact the registrar's office for further information.

## Deficiencies

Students may be admitted with fewer than the required number of units in math and foreign language. It is preferred that any such deficiencies be completed within the first two years at Geneva.

Students entering college with less than two years of one foreign language must make up the deficiency within the first two years of attendance at Geneva. Students who have not taken two years of the same foreign language must take two semesters of one foreign language at the college level. Students who have completed one year of a foreign language must take the spring semester of that same foreign language at the college level. For example, students who have completed one year of high school Spanish must successfully complete Spanish 102. If students have transferred 64 semester credit hours from a community college, the foreign language deficiencies must be completed at a regionally accredited four-year college or university.
Geneva College

## Probationary Admission

If the college desires to admit a student but has some concern about the student's academic success based on some aspect of his/her previous academic record, it will admit the student on what is called "academic probation". Academic Probation carries with it particular restrictions and requirements that are intended to encourage satisfactory academic performance. EDU 095 (described on page 143), which promotes fundamental reading and study skills, is required. Students are also required to develop a learning contract which will be monitored by ACCESS Office staff. More information about academic probation is found above.

## Early Admission

Exceptional students, especially those who have taken a number of courses in advance of their grade level, may qualify for admission to Geneva before completing their senior year of high school. Whenever appropriate, Geneva will arrange on an individual basis to have college courses accepted by the student's school to fulfill diploma requirements. Arrangements must be made with the director of admissions no earlier than the junior year.

## Securing Your Place at Geneva

Once admitted, to secure a place as a Geneva College student, a candidate's reply form must be completed, signed and returned to the admissions office with deposit (resident student-\$250; commuter student-\$100). This should be done within three weeks of your acceptance. By signing the candidate's reply form, a student commits to abide by the academic and lifestyle standards of the college upon enrollment. Registration for classes and campus housing cannot be initiated until deposit has been received.

This deposit is refundable until May 1 for the fall semester and December 1 for the spring semester.

## Financial Aid

Any applicant qualifying for financial assistance can be assured of every possible consideration. However, since all types of aid are available on a first-come-first-served basis, students must meet all filing deadlines (March 15). All students must file the Free Application for Federal Student Aid form (FAFSA) before other forms of aid can be processed. Details and procedures are explained under financial information on page 189.

## Transfer Students (Traditional Undergraduates)

Geneva welcomes transfer students from other accredited colleges and universities or from other institutions with similar academic standards and methods of certifying achievement. Early application is important for maximum financial aid, housing, and registration opportunities. Students wishing to transfer to Geneva College must submit the following items in order to be considered for admission:

- Application for Admission- Part one and two
- Application fee of $\$ 40.00$ (non-refundable)
- Official high school transcripts*
- Official college transcripts (from all colleges attended)
- Academic reference-teacher, guidance counselor, or principal (at least one)
- Character reference (pastor, youth pastor, mentor, etc.)
- SAT or ACT scores are required for students transferring from two-year colleges when the cumulative GPA is less than 3.0 or for students who have completed less than 12 credit hours. SAT or ACT scores are not required for students transferring from four-year colleges or two-year colleges when the cumulative GPA is 3.0 or higher for 12 or more completed credit hours.
*The final high school transcript will be considered complete and closed as of the date of the high school graduation, indicated on the transcript. No additional high school transcript will be accepted after the final transcript is received. The graduation date is the date identified on the final transcript.


## Evaluation of Credit Hours

Once admitted to Geneva College, an official evaluation of credit hours earned at other institutions will be sent to the student. Upon enrollment at Geneva, any additional certified grades will be evaluated and updated by the registrar. An unofficial evaluation of credit hours may be done at any point, even prior to application for admission. To inquire further about this, contact the admissions office. At the time of acceptance for admission, the transfer student receives an evaluation of credit hours which have been earned. Whenever additional grades are certified, the evaluation is updated by the registrar.

## Policies For Students Who Transfer to Geneva from Other Institutions

The class standing of any transfer student will be based on the number of credits accepted in transfer. Courses judged by the college registrar to be equivalent to Geneva courses will be distributed to meet general and major requirements (subject to the limitations noted below). Courses which are judged not to be equivalent to Geneva courses will be accepted as electives (subject to the limitations below).

All credits transferred to Geneva that are certified on official transcripts will be entered on the Geneva transcript as a block of credits from specific institutions; specific courses and course grades will not be listed on the Geneva transcript. Geneva will only use transfer students' grades and GPA from transfer credits: (1) to determine the initial admission decision, (2) to determine eligibility for financial aid for the first year at Geneva, and (3) to determine athletic eligibility in the first semester at Geneva. It should also be noted, however, that the Pennsylvania Department of Education (Chapter 354) requires that any and all courses taken by Education majors must be included in the student's career GPA for certification purposes.

In addition to the policies described in the two preceding paragraphs, each of the following requirements govern the extent to which courses transferred from other institutions will be counted toward a Geneva degree:

- Ordinarily only credits earned at regionally accredited institutions or, in the case of international transfers, nationally approved institutions will be accepted as transfer credit.
- Only courses for which a grade of C- or better has been given will be accepted in transfer. Please note, however, that courses with grades below C - will be included in the calculation of GPA for the three purposes described above (admission, financial aid, and athletic eligibility).
- A minimum of 48 credit hours overall, and at least 12 of the last 30 credit hours, must be earned from Geneva.
- A maximum of 64 credit hours may be transferred from two-year institutions.
- A minimum of $50 \%$ of the required credit hours in the major or minor must be earned at Geneva.
- Courses transferred from another institution will be counted in the same semester that the credit-granting institution that granted the credit designated the course.
- A minimum of $50 \%$ of the required credit hours in the core must be earned at Geneva. These courses must include Great Issues in Politics (POL 352), Foundations of Christian Thought (BIB 300) and at least one 3-credit hour Humanities course.
-For associate degrees a maximum of 24 credits may be transferred.
Requests for exceptions to any of the above policies must be made in writing to the academic dean. Usually, the academic dean will consult with the appropriate department chair, the faculty adviser (when appropriate), and the registrar before granting any exception request.


## Policies for Current Geneva Students Who Wish to Transfer Course Credit to Geneva

Geneva students are permitted to enroll in courses at other institutions and transfer the credits and grades for these courses to Geneva. However, all of these transfer courses must be approved in advance by the college registrar with assistance from a student's faculty adviser. Department chairs also may require students to repeat certain courses in the major if the age of, or if a student's performance in, the transfer course do not adequately support adequate achievement in the major.

In addition to the policies described in the preceding paragraph, each of the following requirements govern the extent to which courses that Geneva students take at other institutions will be counted toward a Geneva degree: Ordinarily only credits earned at regionally accredited institutions or, in the case of international transfers, nationally approved institutions will be accepted as transfer credit.

- Only courses for which a grade of C - or better has been given will be accepted in transfer. Both the grade and the credit will be transferred to Geneva. In addition, the Pennsylvania Department of Education (Chapter 354) requires that any and all courses taken by Education majors must be included in the student's career GPA for certification purposes.
- A minimum of 48 credit hours overall, and at least 12 of the last 30 credit hours, must be earned from Geneva.
- A maximum of 64 credit hours may be transferred from two-year institutions.
- A minimum of $50 \%$ of the required credit hours in the major or minor must be earned at Geneva.
- Courses transferred from another institution will be counted in the same semester that the credit-granting institution that granted the credit designated the course.
- In order to replace a grade for a course previously completed at Geneva, the course must be repeated at Geneva (i.e., the grade for a course taken at another institution cannot replace the grade that a student earned for the same course at Geneva).
- A minimum of $50 \%$ of the required credit hours in the core must be earned at Geneva. These courses must include Great Issues in Politics (POL 352), Foundations of Christian Thought (BIB 300) and the Humanities sequence of HUM 103, 203 and 303.
- For associate degrees, a maximum of 24 credit may be transferred.

Requests for exceptions to any of the above policies must be made in writing to the academic dean. Usually, the academic dean will consult with the appropriate department chair, the faculty adviser (when appropriate), and the registrar before granting any exception request.

## International Students

Students applying for admission from outside of the United States will need to follow a different set of guidelines as follows:

1) Complete the application for admission in its entirety and submit it to the admissions office with the $\$ 25$ (U.S.) application fee. Unless otherwise instructed, the fee must accompany the application to be considered complete. A bank or money order should be made payable to Geneva College.
2) Submit a letter of financial backing to the college. This should be a document from your sponsor (or yourself, if you are providing your own support) certifying that sufficient financial resources are available to cover ALL of your educational expenses while you are in the U.S.A. Please include bank statements or other supporting documentation that substantiates the ability to meet all of your financial obligations.
3) Submit official transcripts from all of your previous institutions. Include secondary school and college transcripts, graduation certificates, or certified results of the standard examination for entry into higher education in your own country, if applicable. These transcripts must be officially translated into English and must be sent directly from the schools from which the courses were taken. A minimum of six passes at the ordinary level of the General Certificate of Education (GCE) is required for admission.
4) Submit an academic recommendation from at least one person (non-relative) who is most familiar with your academic achievement.
5) Submit result of the Test of English as a Foreign Language (TOEFL), or results of other internationally recognized tests of English (e.g. IELT or the Michigan Test) if English is not your native language.

Once all of the above documentation has been received in the Geneva College Admissions Office, an admission decision will be made. Once admitted to Geneva College, a letter indicating your admission and the I- 20 will be sent to you. To secure your place as a student at Geneva, you must submit a $\$ 1,000$ (U.S.) deposit, which will be credited to your semester's cost. Registration and housing will not be processed until your deposit has been received in the admissions office. This deposit is refundable only until May 1, after which no refund will be given should you decide not to enroll.

Once admitted to Geneva College, an official evaluation of credit hours earned at other institutions will be sent to the student. Upon enrollment at Geneva, any additional certified grades will be evaluated and updated by the registrar. An unofficial evaluation of credit hours may be done at any point, even prior to application for admission. To inquire further about this, contact the admissions office.

## International Articulation Agreements

Geneva College currently has a formal articulation agreement with Christ's College, Taipei, Taiwan. Typically graduates of Christ's College with a BA in English and recommendation of the faculty can achieve a Geneva BA degree with a major in communication in 15 months. Completion time is dependent, however, on the student's English skills and the ability to complete the prescribed curriculum.

## English Language Acquisition Institute (ELAI)

The English Language Acquisition Institute (ELAI) offers intermediate and advanced level courses for degree-seeking students who need support with their English skills. Availability of these courses depends on need within our international student population.

The intermediate division is the English for academic purposes (EAP) level. This allows students who are at the intermediate level to enroll in one regular Geneva College class (or a maximum of three credit hours) in addition to nine credit hours of ESL courses designed to develop academic skills such as essay writing, lecture note taking, reading, and
discussion of academic topics. New students admitted to the EAP must have a score from 480 to 499 on the TOEFL test ( 157 to 170 on the computerized TOEFL test). There is a flat tuition fee plus incidental fees at this level.

The advanced division is the bridge program, for students who are almost ready to take a minimum of 12 regular college credit hours but still need some additional work on English skills. New students admitted to the bridge program must have a score from 500 to 549 on the TOEFL test ( 173 to 213 on the new computer-based TOEFL test) and have satisfied other requirements to be admitted as freshmen or transfer students. Students at this level take one to three ESL courses and two to four regular college classes. Students are charged according to the regular college tuition schedule at this level.
ESL courses (English for academic purposes) include:
ESL 310 $\quad$ Academic Oral Communication ( 2 credit hours, 3 classroom hours) 1 Academic Writing ( 2 credit hours, 3 classroom hours)

Course descriptions for these ESL courses can be found on page 151.

## Health Insurance Coverage

All international students must pay for group medical insurance or provide proof of similar insurance coverage from their home countries.

## Readmission

Students who discontinue course work for any reason must apply for a readmission 60 days prior to the semester in which they wish to enroll. The form is available from the registrar's office or on Geneva's website.

## Transient Students

Students in good academic standing at other accredited institutions are approved for registration upon presentation of Geneva's transient student certificate bearing the appropriate signature and seal from their college or university. This arrangement is particularly useful for study in Geneva's summer program. Transient students accept full responsibility for securing their institution's approval of the courses they take at Geneva, and the transient status must be renewed each semester or summer.

## Teacher Certification Candidates

Candidates who have their bachelor's degree but wish teacher certification must furnish one official transcript of all college work to the department of education and must meet with the Education Department Certification Officer to establish a program that will result in the education department being able to recommend the individual for certification in Pennsylvania (see page 59). High school transcript and SAT scores are not necessary, but the education department requires that applications for student teaching be made at least one semester in advance. Course work accepted for the purpose of achieving teacher certification will have to be of such recency and quality as to be relevant to current state certification standards.

## Post-Baccalaureate

After having completed a baccalaureate degree, college graduates may wish to take additional courses to earn a second bachelor's degree, to complete teacher certification, or to learn new skills. Upon presentation to the registrar of a diploma or official transcript, a student may enroll in any Geneva course or program of studies at the regular fee. In addition, Geneva offers six graduate degree programs.

## FINANCIAL INFORMATION

## Rates and Fees

Full-time tuition includes a full-semester load of course instruction, the use of the library, computer labs, and the physical education facilities of the college, and admission to all athletic competitions. A schedule of at least 12 credit hours and not more than 17 is considered to be a full-semester load and is subject to regular per-semester tuition. Tuition charges for less than 12 credit hours or more than 17 credit hours, and for summer school students, are at a per credit hour. Full tuition is charged for repeated courses.

## Deposits

New students confirm their acceptance with a $\$ 100$ deposit applicable to their tuition but not refundable. Resident students also pay a room deposit of $\$ 150$.

All charges are subject to change each academic year.
2010-2011 Schedule of Fees
Undergraduate Program
(per semester)
Tuition, semester (12 to 17 credit hours) ..... \$11,118
Each hour beyond 17 credit hours schedule ..... $\$ 745$
Room \& Board, per semester ..... $\$ 4000$
*Full 21 meal plan-Both a fourteen-meal plan and a block plan option is available to upperclassmen.
Department Fees
(per semester)
Several courses in the education department have student fees. All coursesthat require work with a school district and payment to a certified cooperatingteacher have a fee. See the education department for complete information.
CDS 450 ..... \$160
Private Music Lessons- 1 credit hours ..... \$240
Private Music Lessons- 2 credit hours ..... \$440
Private Music Lessons- 3 credit hours ..... \$640
Late Registration Fee ..... \$25
Summer School
(per semester)
Tuition, per semester credit hour ..... \$635
Summer residents, room per week ..... \$60
Graduate Tuition
MBA (per credit hour) ..... \$650
Counseling, Higher Education and Special Education (per credit hour) ..... \$625
MSOL (cohort, term = nine credit hours) ..... \$6,840
DCP Cohort Charge
HRM and CMN ..... \$6,216
OD and HS ..... \$6,216

## Refund Schedule

Refunds for tuition and room charges are given to students who withdraw completely from all courses before the completion of four weeks of a traditional 15 -week semester according the following schedule:

| When withdrawal from all courses occurs: | then tuition and room are refunded at: |
| :--- | :---: |
| $\ldots$ before classes begin | $100 \%$ |
| $\ldots$ before the end of the $1^{\text {st }}$ week of classes | $80 \%$ |
| $\ldots$ before the end of the $2^{\text {nd }}$ week of classes | $60 \%$ |
| $\ldots$ before the end of the $3^{\text {rd }}$ week of classes | $40 \%$ |
| $\ldots$ before the end of the $4^{\text {th }}$ week of classes | $20 \%$ |
| $\ldots$ after the $4^{\text {th }}$ week of classes | $0 \%$ |

- The effective date of withdrawal is based on when the Registrar's office has been properly notified. Traditional undergraduate students withdrawing from the fall or spring semester may notify the Student Development office instead.
- Board charges are prorated for the remaining part of the term.
- Refunding for non-Geneva aid will happen at a different rate from charges above. Check with the business office and/or the financial aid office for details.
- Refunds for students who withdraw from classes taken in non-traditional schedules (e.g., summer, cohort, offcampus) will be based on the general principle derived from the above table. That is, in general, no refunds will be given after $25 \%$ of the class has elapsed. Contact the business office for details.
- Separate policies apply to room and board issues for student interns away from campus.


## Medical Withdrawal

A medical withdrawal is intended for use only in situations in which a student is medically or psychologically incapacitated such that he/she cannot continue as a college student. All medical withdrawals must be substantiated by a letter from a doctor and subsequently approved by the dean of student development. Return in a subsequent semester requires the approval of the dean of student development as well.

Medical withdrawal will apply to cases in which students actually have to withdraw from all their courses during any given semester. It will not apply to circumstances where a student wishes to take an incomplete with the intention of completing courses. It will not apply where a student withdraws from one or more courses for medical reasons.

Refunds are available for the current semester on a pro-rated (number of weeks) basis for tuition, room and board, given an effective date at the discretion of the dean of student development and dean of faculty and administration.

## Payments

All checks should be made payable to Geneva College and should include the student's identification number. All tuition and housing charges for the semester are due by August 10 for the fall semester and by January 2 for the spring semester. Interest of 1.25 percent per month is charged accounts not paid in 30 days. All charges, net of financial aid, are to be paid prior to the due dates.

A number of specialized tuition-payment plans for financing college costs are available. Some of these are advertised in national magazines or by direct mail. Local banks may have such plans. Further information on financial arrangements can be obtained from the Business Office.

## Scholarships and Financial Aid <br> Eligibility

Geneva College offers financial aid from a variety of sources including grants, scholarships, state funds, loans and work study. Full information can be obtained from the Financial Aid Office. Continuation of financial aid from year to year depends on the student's making "satisfactory progress" toward a degree and meeting filing deadlines. Each institution is required by federal law to establish a set of minimum standards. In order for a student to receive any type of aid through Geneva, he or she must maintain satisfactory progress as follows:

Full-time students must complete a minimum of 24 credit hours of academic credit annually to remain eligible for aid consideration. All part-time students must complete 75 percent of all credit hours attempted. If in a specific term less than 75 percent are completed, then 75 percent of cumulative attempts must be completed. In order to receive any financial aid funds, all students must have a minimum cumulative GPA of 1.7 at the beginning of the sophomore year and a 2.0 before receiving financial aid for the junior and subsequent years. Students must complete their program of study in no more than six years. However, many types of financial aid are available for four years only.

Credit hours completed will only be those with grades of A through D- and grade CR for credit-no credit courses. No other grades will be considered as credit hours completed, including F, AU, IN, NC, and the grades A through D for any repeated courses where the original grade was not an F.

In the spring of each year, those students eligible to re-enroll by the college's academic standards (page 20) will be reviewed by the Financial Aid Office to assure satisfactory progress for the next academic year. Those who have failed to meet the minimum standards will be placed on financial aid suspension. This can be appealed by writing to the Financial Aid Office.

Geneva College offers various scholarships, grants, loans, and student employment. The financial aid offered by Geneva falls into these categories:

- Academic Scholarships based upon SAT/ACT scores and high school GPA
- Grants based upon financial need determined by the Free Application for Federal Student Aid from (FAFSA) results
- Grants based upon membership in certain denominations, parents occupation or high school attended
- Federal Grants
- State Grants from participating states
- Federal student loans
- Part-time employment on campus

Please check the Geneva College web site for up to date information and details.

## Federal Aid Refund Policy

The Financial Aid Office is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing $60 \%$ of a payment period or term. The federal Title IV financial aid programs must be recalculated in these situations.

If a student leaves the institution prior to completing $60 \%$ of a payment period or term, the financial aid office recalculates eligibility for Title IV funds. Recalculation is based on the percentage of earned aid using the following Federal Return of Title IV funds formula:

Percentage of payment period or term completed $=$ the number of days completed up to the withdrawal date divided by the total days in the payment period or term. (Any break of five days or more is not counted as part of the days in the term.) This percentage is also the percentage of earned aid.

Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula: Aid to be returned $=(100 \%$ of the aid that could be disbursed minus the percentage of earned aid $)$ multiplied by the total amount of aid that could have been disbursed during the payment period or term.
If a student earned less aid than was disbursed, the institution would be required to return a portion of the funds and the student would be required to return a portion of the funds. Keep in mind that when Title IV funds are returned, the student borrower may owe a debit balance to the institution.

If a student earned more aid than was disbursed to him/her, the institution would owe the student a post-withdrawal disbursement which must be paid within 120 days of the student's withdrawal.

Refunds are allocated in the following order:

- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Unsubsidized Direct Stafford Loans (other than PLUS loans)
- Subsidized Direct Stafford Loans
- Federal Perkins Loans
- Federal Parent (PLUS) Loans
- Direct PLUS Loans
- Federal Pell Grants for which a return of funds is required
- ACG \& SMART for which a return of funds is required
- Federal Supplemental Opportunity Grants for which a return of funds is required
- Other assistance under this Title for which a return of funds is required (e.g., LEAP)


## Geneva Funds Refund Policy

Geneva aid is refunded based upon the amount of time the student has been enrolled and is prorated accordingly. For example, if the student has attended for $45 \%$ of the semester, then $45 \%$ of the aid remains credited to the student account and $55 \%$ will be removed.

ANY INFORMATION PRINTED IN THE MOST RECENTLY PUBLISHED FINANCIAL AID BROCHURE SUPERCEDES THE INFORMATION PROVIDED IN THIS CATALOG.

## COLLEGE PERSONNEL

## Board of Corporators

The charter of the college provides for the incorporation of the school to be controlled by a Board of Corporators consisting of members of the Reformed Presbyterian Church of North America.

The membership of the board is made up as follows: one person is chosen by each presbytery of the Reformed Presbyterian Church for a term of four years; four are chosen by the Synod of the church, one each year for a term of four years, and 12 are chosen by the Board itself. The Board elects its own officers. The treasurer may or may not be made a member of the Board.

## Officers:

Bonnie Weir, Chairman
Matt Filbert, Vice Chairman
Ralph Joseph, Secretary
Ron Graham, Treasurer

## Members elected by Synod:

Term expires 2011
Jason O'Neill, Indianapolis, Indiana
Term expires 2012
Joshua Lamont, Gibsonia, Pennsylvania
Term expires 2013
Dr. Calvin Troup, Allison Park, Pennsylvania
Term expires 2014
Matthew T. Filbert, Beaver Falls, Pennsylvania
Members elected by the Corporators:
Term expires 2011
David Ashleigh, South Pasadena, California
Vicky Parnell, Stillwater, Oklahoma
Samuel Spear, Pittsburgh, Pennsylvania
Term expires 2012
Herbert McCracken, Beaver Falls, Pennsylvania
James Tweed, Winchester, Kansas
Dennis Wing, Shawnee, Kansas
Term expires 2013
Philip Duguid, Meridan, Kansas
Christopher Huggins, Tully, New York
Rev. Ralph Joseph, Slippery Rock, Pennsylvania
Term expires 2014
Shana Milroy, Colorado Springs, Colorado
Rev. Philip Pockras, Belle Center, Ohio
William Weir, Pittsburgh, Pennsylvania

## Members elected by the Presbyteries:

Term expires 2012
Rev. Ron Graham, Clay Center, Kansas (Midwest)
Rev. Andrew McCracken, Columbus, Indiana, (Great Lakes-Gulf)
Term expires 2013
Brian Panichelle, Latrobe, PA (Alleghenies)
Term expires 2014
Mr. Peter Howe, North Syracuse, New York (St. Lawrence)
Rev. Donald Piper, Brier, Washington, (Pacific Coast)
Dr. Bonnie Weir, Bronxville, New York (Atlantic)

## Board of Trustees

The affairs and business of the college are managed by the Board of Trustees which consists of 31 members chosen by the Board of Corporators. Eighteen trustees are chosen from the members of the Reformed Presbyterian Church. Five trustees, all of whom shall be members of an evangelical church, are elected from nominees certified by the Alumni Association of the college. Eight trustees, all of whom shall be members of an evangelical church, are elected from nominees certified by the Board of Trustees.

## Officers:

Dr. William Edgar, Chairman
Mr. Steven McMahan, Vice Chairman
Joyce Lynn, Secretary

## Members representing the Reformed Presbyterian Church:

Term expires 2011
Rev. Bruce Backensto, Pastor, First Reformed Presbyterian Church, Beaver Falls, Pennsylvania
Dr. William J. Edgar, Pastor, Broomall Reformed Presbyterian Church, Drexel Hill, Pennsylvania
Joye Huston, Retired Nurse, Winchester, Kansas
Steven McMahan, Vice President and Sales Manager, Central Office Service and Supply, Inc., Clay Center, Kansas
David Schaefer, Information Technology, Cutler Hammer, Monaca, Pennsylvania
Term expires 2012
Rev. Robert McFarland, Pastor, retired, RPCNA Church, Regional Home Missionary, Topeka, Kansas
Rev. Donald Piper, Pastor, retired, RPCNA Church, Brier, Washington
Dr. Calvin Troup, Associate Professor of Communication, Duquesne University, Allison Park, Pennsylvania
Dr. David Weir, faculty, Nyack College, Bronxville, New York
Term expires 2013
Kendell Chilton, Engineer, EMC Corporation, Southborough, Massachusetts
John Edgar, Esquire, Sherrard, German, and Kelly, P.C., Pittsburgh, Pennsylvania
Dr. Godfrey Franklin, Director, Professional \& Community Leadership, University of West Florida, Pensacola, Florida
Joel Silverman, Indianapolis, Indiana
Keith Wing, Consultant, the Key Source Group, Inc., Hudson, Ohio
Term expires 2014
Ingrid Birdsall, Middle School Teacher, Pasadena Unified School District, Pasadena, California
Joyce Lynn, Teacher, Beaver County Christian School, Beaver Falls, Pennsylvania
Michael McDaniel, Manager-Asset Management, IBM Corporation, Longmont, Colorado
Dr. Sergei Spirydovich, UPMC Cancer Centers, Belle Vernon, PA

## Members representing the Alumni:

Term expires 2011
Virginia Badger, CPA, Acuity Advisors \& CPAs, Lancaster, Pennsylvania
Andrew Bernard, International Tax Consultant, Ambler, Pennsylvania
Term expires 2012
Thomas M. Yancy, Retired- Senior Vice President, Conversion Resources, Aurora, Ohio
Tern expires 2013
Dr. Melville W. Adams, Consultant, Huntsville, Alabama
Term expires 2014
Katharine Dennis, Vice President, Major Gifts, Scottsdale Healthcare Foundation, Scottsdale, Arizona

## Members certified by the Board of Trustees:

## Term expires 2011

G. Reynolds Clark, Vice Chancellor of Community Initiatives \& Chief of Staff, University of Pittsburgh, Pittsburgh, Pennsylvania
Charles Pockras, Financial Advisor, Edward Jones Investments, Kingston, Ohio
Term expires 2012
Alan Rose, Autism Supportive Living Services, Goose Creek, SC
Term expires 2013
James Roy, President and CEO, retired, Federal Home Loan Bank of Pittsburgh, Pittsburgh, Pennsylvania
Lori Stuckey, Homemaker and Volunteer, Hollidaysburg, Pennsylvania

Term expires 2014
William Kriner, Attorney, Clearfield, PA
Andrew Marcinko, Scientific Pittsburgh, Pittsburgh, Pennsylvania

## Administration

The year in parentheses following the name of each person is the date of first appointment in the college.
Kenneth A. Smith (2004), President; BA, BSBA, Geneva College; MPIA, University of Pittsburgh; PhD, University of Maryland.

John H. White (1961), President Emeritus (retired 2004); BA, Geneva College; diploma, Reformed Presbyterian Theological Seminary; MA, University of Pittsburgh; DMin, Pittsburgh Theological Seminary.

Dr. W. Joseph McFarland (1984), President Emeritus (retired 1992); 2001 Honorary Doctorate, Geneva College; education, Sterling College, University of Indiana, University of Northern Colorado.

## Academic Affairs

Kenneth P. Carson (1999), Provost and Professor of Psychology; BS, Geneva College; MA, PhD, University of Akron.
Karla Threadgill Byrd (1997), Executive Director, Center for Urban Biblical Ministries; BS, California University of Pennsylvania; MAT, University of Pittsburgh.

Andrea Korcan-Buzza (1988), Registrar; BA, Geneva College; MEd, Westminster College; MA, Geneva College.
Melinda R. Stephens (1998), Dean of Academic Programs and Associate Professor of Chemistry; BS, Geneva College; PhD, University of Pittsburgh.

Terri R. Williams (1986), Dean of Faculty and Administration and Professor of Psychology; BA, Anderson University; MA, PhD, Michigan State University.

## Student Development

Michael J. Loomis (2008), Dean of Student Development; BA, Gordon College; MA, Gordon-Conwell Theological Seminary; PhD, Azusa Pacific University.

Cynthia L. Cook (1994), Assistant Dean of Student Development and Multiethnic Student Services Director; BA, Geneva College; MA, Geneva College.

Paul C. Perrine (1996), Assistant Dean of Student Development and Director of Residence Life; BA, Wheeling Jesuit University; MA, Geneva College.

Donald J. Sullivan (1975), Vice President Emeritus of Student Development (retired, 1999); BSEd, Slippery Rock State College; master's equivalence, Duquesne University and Brown University.

Joy M. Jewell (1975), Dean Emerita of Student Development (retired 2008); BA, Geneva College; MA, The Pennsylvania State University, University of Pittsburgh, additional course work at Pennsylvania State University.

## Athletics

Kimerly R. Gall (2008), Athletic Director; BA, Cedarville College; MS, University of Dayton; PhD, The Ohio State University.

## Business Management

Larry K. Griffith (2009), Executive Vice President; BA, Geneva College.

## Associate Vice President and Controller

Stephen Ross (2009), Associate Vice President and Controller; BS, Cedarville University.

## Associate Vice President for Operations and Human Resources

Tim Baird (2004), AVP for Operations and Human Resources; BSBA, Geneva College; MBS, Saint Joseph’s University.

## Vice President for Advancement

Jeff Jones (2010), Vice President for Advancement; BS, Southeast Missouri State University; MDiv, Golden Gate Baptist Theological Seminary; PHD candidate, Azusa Pacific University.

## Enrollment Services and Advancement

Steven Bell (1995), Director of Financial Aid; BS, Allegheny College; MA, Indiana University of Pennsylvania

David Layton (1988), Associate Vice President of Enrollment Services; BS, MA, Geneva College.

## Faculty

## Emeritus Faculty

The second year in parentheses is the year of retirement.
W. Paul Arnold (1965), Professor Emeritus of Mathematics (1991); Rensselaar Polytechnic Institute; BS, MLitt., PhD, University of Pittsburgh.

David W. Badger (1969), Professor Emeritus of Chemistry (2004); BS, Geneva College; MS, PhD, University of Michigan.
Constance T. Braun (1967), Professor Emerita of Education (2001); BSEd, Geneva College; MLS, University of Pittsburgh; MEd, Westminster College.

David M. Carson (1946), Samuel A. Sterrett Professor Emeritus of Political Philosophy (1992); BA, Yale University; Reformed Presbyterian Theological Seminary; MA, PhD, University of Pennsylvania.

Norman M. Carson (1957), Professor Emeritus of English (1991); BA, Geneva College; MA, State University of Iowa; Reformed Presbyterian Theological Seminary; University of Pennsylvania; University of Chicago; PhD, Boston University.

Mary E. Cleland (1962), Assistant Professor and Assistant Librarian Emerita (1995); BA, Geneva College; Columbia University; MSLS, Case Western Reserve University.

Elizabeth A. Douglas (1966), Professor Emerita of Fine Arts and Coordinator of the Humanities Survey courses (1996); BFA, Carnegie-Mellon College; MA, University of Pennsylvania.

Harry E. Farra (1962), Professor Emeritus of Communication (2001); BA, Northwestern College; MDiv, Bethel Theological Seminary; MA, University of Minnesota; PhD, The Pennsylvania State University; University of Pittsburgh.

Kenneth E. Hartman (1968), Professor Emeritus of Chemistry and Director of Pre-medical and Allied Health Program (2005); BS, Geneva College; PhD, University of Pennsylvania.

David A. Harvey (1972), Professor Emeritus of Psychology, Counseling and Human Services (2010); BAE, University of Florida; MEd, Florida Atlantic University; PhD, University of Pittsburgh.

Joseph Hill (1949), Associate Professor Emeritus of Biblical Studies and Greek (1986); BA, Geneva College; Reformed Presbyterian Theological Seminary; University of Denver; Calvin College; University of Michigan; ThM, Pittsburgh Theological Seminary.

Paul L. Holland (1970), Professor Emeritus of Psychology (1999); BA, Geneva College; MDiv, Fuller Theological Seminary; MEd, PhD, University of Illinois; Dubuque Theological Seminary; DMin, Pittsburgh Theological Seminary.

Robert Hough (1988), Dean Emeritus of Adult and Continuing Education (2001); BA, Calvin College; MA, Presbyterian School of Christian Education; PhD, Michigan State University.

George J. Jennings (1971), Associate Professor Emeritus of Anthropology and Sociology (1981); BA, University of Minnesota; BD, Northwestern Evangelical Seminary; MA, University of Minnesota.

Edward L. Kuriger (1963), Associate Professor Emeritus of Economics (1994); BBA, MA, University of Pittsburgh.
M. Howard Mattsson-Bozé (1962), Professor Emeritus of History and Humanities (2005); BA, MA, Northwestern University; MA, University of Pittsburgh; PhD, University of Minnesota.

John Mitchell (1962), Associate Professor Emeritus of Business Administration (1995); BSBA, Geneva College; MBA, University of Pittsburgh; The Pennsylvania State University; CPA.
J. Randall Nutter (1992), Professor Emeritus of Business (2008), Bs, MS, Northern Illinois University, DSc, DBA Nova University.

Ann Paton (1958), Professor Emerita of English (1994); BA, Geneva College; MLitt, University of Pittsburgh; PhD, University of Colorado; Princeton University; University of Minnesota; University of Virginia; Trinity Episcopal School of Ministry.

Stanley P. Reyle (1976), Professor Emeritus of Mechanical Engineering (1996); ME, MS, Stevens Institute of Technology; PhD, Polytechnic Institute of New York.

Verley G. Sangster (1994), President Emeritus Center for Urban Theological Studies (2006); MA, Fuller Theological Seminary; DDiv, Colorado Christian University.

Paul E. Smith (1966), Professor Emeritus of English (2005); AB, Calvin College; MA, Bowling Green State University; University of Wisconsin; PhD, University of Pittsburgh.

Richard L. South (1961), Professor Emeritus of Physics (1999); BS, Geneva College; MS, PhD, Case Western Reserve University.

James H. Sterrett (1975), Professor Emeritus of History (1999); BA, Grove City College; MA, PhD, Kent State University; Trinity Episcopal School for Ministry.

Eugene C. Sullivan (1976), Assistant Professor Emeritus of Physical Education (1999); B.S., Slippery Rock University; MAT, University of North Carolina.

Philip J. Van Bruggen (1992), Professor Emeritus of Psychology, Counseling, and Human Services (2008); BA, University of Oregon; MA, PhD, University of Iowa.

Marilyn C. Van Dyke (1955), Assistant Professor Emerita and Cataloging Librarian (2005); BA, Geneva College; MLS, Carnegie Library School.

John H. White (1961), President and Professor of Bible Emeritus (2004); BA, Geneva College; diploma, Reformed Presbyterian Theological Seminary; MA, University of Pittsburgh; DMin, Pittsburgh Theological Seminary.

Ann Wollman (1975), Registrar Emerita (2002); BA Augsburg College, MA, University of Wisconsin.
David H. Wollman (1971), Professor Emeritus of History (2002); AB, Northeastern University; MA, PhD., University of Wisconsin; London University.

## Current Faculty

Adel G. Aiken (1985), Professor of Education and Director, MEd in Reading program; BSEd, Geneva College; MEd, Westminster College; EdD, University of Pittsburgh.

Todd A. Allen (1996), Associate Professor and Chair, Department of Communication and Director of Forensics; BA, Geneva College; MA, University of Akron; PhD, Duquesne University.

Ralph Ancil (2004), Associate Professor of Economics; BS, Grand Valley State University; MS, Michigan State University; PhD , Michigan State University.

Rodney Austin (2005), Associate Professor of Chemistry; BS, Mount Vernon Nazarene College; PhD, University of Cincinnati.

William Barlow (2010), Associate Professor of Engineering; BSEE, The Pennsylvania State University; MSEE, University of Pittsburgh.

Elizabeth Belcastro (2010), Assistant Professor of Education; BA, Fairmont State College; MA, West Virginia University; EdD, University of Pittsburgh.

Doug Bradbury (2008), Assistant Professor of Biblical Studies; BA, MA, Geneva College.
Joseph Bucci (2005), Assistant Professor of Business; BA, William Paterson University; MEd, William Paterson University; MBA, West Chester University.

Kenneth P. Carson (1999), Provost and Professor of Psychology; BS, Geneva College; MA, PhD, University of Akron.
David Che (2008), Associate Professor of Engineering; BS, Harbin Institute of Technology; MS, Ohio State University; PhD, University of Michigan.

Jeffrey Cole (2003), Professor of History and Coordinator of the Geneva College Semester in Rome Program; BS, Lynchburg College; MEd, Lynchburg College; PhD, Bowling Green State University.

Deborah Gayle Copeland (2003), Professor and Chair, Department of Education; BA, Geneva. College; MA, University of Kansas; MA, California State University, Fresno; PhD, University of Kansas.

Louise Copeland (2009), Associate Professor of Music; BS, Geneva College; MM, University of Cincinnati.
Robert M. Copeland (1981), Professor of Music; BS, Geneva College; MMus, PhD, University of Cincinnati; Westminster Choir College.

Thomas Copeland (2004), Associate Professor of Political Science; MA, University of Pittsburgh; PhD, University of Pittsburgh.

Peter W. Croisant (1983), Assistant Professor of Communication and Director of Broadcasting; BA, Michigan State University; MA, CBN University.

Byron Curtis (1991), Professor of Biblical Studies; BA, Geneva College; MDiv, Reformed Theological Seminary; PhD, Westminster Theological Seminary.

Jack Delivuk (1990), Professor of Library and Systems Librarian; BS, Geneva College; MDiv, Reformed Presbyterian Theological Seminary; MSLS, Clarion University; STM, ThD, Concordia Seminary.

Eugene DeMarco (1993), Instructor of Business and Head Football Coach; BA, Geneva College; MBA, West Virginia University.

James K. Dittmar (1989), Professor of Leadership Studies and Director, Department of Leadership Studies; BA, Geneva College; MEd, Slippery Rock University, PhD, University of Pittsburgh.

John G. Doncevic (2007), Associate Professor of Library and Library Director; BS, Geneva College; MLIS, University of Pittsburgh; MTS, Reformed Presbyterian Theological Seminary; JD, Widener University.

Sean Doyle (2008), Assistant Professor of History and Humanities; BA, Toccoa Falls College; MA, Gordon-Conwell Theological Seminary; PhD, University of Edinburgh.

David A. Essig (1999) Associate Professor of Biology and Program Coordinator, Program in Cardiovascular Technology; BS, Bowling Green State University; MS, Ball State University; PhD, University of Michigan.

Kathryn E. Floyd (2006), Assistant Professor of Library and Cataloger/Assistant Instructor Librarian; BA, Calvin College; MSLS, Clarion University of Pennsylvania.

Robert Frazier (2003), Professor of Philosophy and Chair, Department of Core Studies; BA, Gordon College, MA, GordonConwell Theological Seminary, PhD, The State University of New York at Buffalo.

Bradshaw Frey (1984), Professor of Sociology and Chair, Department of History, Political Science and Sociology; BA, Geneva College; MDiv, STM, Pittsburgh Theological Seminary; PhD, University of Pittsburgh.

Kimerly R. Gall (2008), Athletic Director and Chair, Department of Physical Education; BA, Cedarville College; MS, University of Dayton; PhD, The Ohio State University.

John Gallo (2007), Assistant Professor, Degree Completion Program; BA, MS, Geneva College.
James S. Gidley (1990), Professor of Civil Engineering and Chair, Department of Engineering; BS, University of Rhode Island; SM, Harvard University; PhD, Harvard University; PE.

David S. Guthrie (1997), Professor of Higher Education; BA, Grove City College; MA, Pittsburgh Theological Seminary; PhD, The Pennsylvania State University.

Mark J. Haas (2000), Professor of English; BA, Gordon College; MA, University of Connecticut; DA, Illinois State University.
S.S. Hanna (1982), Professor of English; BA, University of Wisconsin; MA, PhD, Indiana University.

Natalie Heisey (2010), Assistant Professor of Education; BS, Edinboro University; MEd, Gannon University; EdD, University of Pittsburgh.

Janet Hines (1996), Assistant Professor of Mathematics; BS, BSEE, Geneva College; MBA., Robert Morris College; MST, University of Pittsburgh.

Daniel F.A. Hitchcock (2008), Associate Professor of Psychology, Counseling and Human Services; Diploma of French Studies, University of Perpignan, Perpignan France; BA, The Colorado College; Certificate in Psychology and Genetic Epistemology, University of Geneva; Geneva Switzerland; MS and PhD, Rutgers University.

Elaine Hockenberger (1985), Professor of Communication; BA, MS, Bloomsburg State College; PhD, University of Pittsburgh.

Philip M. Holladay (1983), Professor of Mathematics; BS, MS, PhD, North Carolina State University.
Deborah A. Jeannett (1997), Associate Professor of Organizational Leadership; BA, College Misericordia; MEd, EdD, University of Pittsburgh.

Romaine Jesky-Smith (1977), Professor of Education, Director of Educational Computer Lab; BSEd, Geneva College; MEd, Westminster College; PhD, University of Pittsburgh.

Nancy Johnson (2004), Associate Professor of Education; BA, Wheaton College; MEd, University of Virginia; PhD, Pennsylvania State University.

Donald B. Kephart (1983), Associate Professor of Music and Chair, Department of Music; BS, Grove City College; The Pennsylvania State University; MMus, Youngstown University.

Paul W. Kilpatrick (1991), Professor of English and Chair, Department of English; BA, Geneva College; MA, PhD, The Pennsylvania State University.

Shirley J. Kilpatrick (1991), Professor of Humanities; BA, Geneva College; MA, The Pennsylvania State University; DMin, Trinity Episcopal School for Ministry.

David F. Kuhns (1996), Professor of English; BA, MA, PhD, University of Pittsburgh.
Lynda J. Lambert (1996), Associate Professor of Fine Arts and Humanities; BFA, Slippery Rock University; MFA, West Virginia University; MA, Slippery Rock University.

Susan Layton (2004), Instructor of Communications; BA, Geneva College; MS, Illinois State University; CCC-SLP.
Robert E. Liljestrand (1983), Associate Professor of Civil Engineering; BSCE, MSCE, Purdue University, PE.
Sha Luangkesorn (2006), Assistant Professor of Piano and Music Theory; BM, Chapman University; MM, DMA, University of Cincinnati.

Carol B. Luce (1989), Professor of Psychology, Counseling and Human Services; Director, MA in Counseling Program; BA, Susquehanna University; MEd, The Pennsylvania State University; PhD, University of Pittsburgh.

James Matta (2010), Associate Professor of Counseling; BA, MA, Edinboro University; BS, EdD, Duquesne University.
Kerry McMahon (2004), Associate Professor of Chemistry; BS, Geneva College; PhD, University of Connecticut.
Esther Meek (2004), Associate Professor of Philosophy; BA, Cedarville College; MA, Western Kentucky University; PhD, Temple University.

Eric J. Miller (1999), Associate Professor of History; BS, Lancaster Bible College; MA, Trinity International University; PhD , University of Delaware.

Megan Morton (2009), Assistant Professor of English; BA, Saint Xavier University; MA, PhD, Purdue University.
Ronald Moslener (1992), Professor of Psychology, Counseling and Human Services; BA, University of Pittsburgh; MDiv, Pittsburgh Theological Seminary; DMin, Fuller Theological Seminary.

Denise Murphy-Gerber (2008), Associate Professor of Business; BSBA, Clarion University; MS, National-Louis University; PhD (ABD), Duquesne University.

Frederick R. Neikirk, Jr. (1992), Professor of Political Science; BA, MA, University of Delaware; PhD, University of Illinois.

Donald Opitz (1999), Professor of Sociology and Director, MA in Higher Education Program; BA, Westminster College; MDiv, Gordon-Conwell Theological Seminary; PhD, Boston University.

William O. Pearce (2007), Associate Professor of Business and Chair, Department of Business, Accounting, and Management, Director, MBA program; BS, MS and PhD (ABD), Florida Institute of Technology.

Joseph E. Peters (1999), Professor of Psychology, Counseling and Human Services; BS, Juniata College; MS, PhD, The Pennsylvania State University.

Ralph N. Phillips (1995), Associate Professor and Director, Department of Adult and Continuing Education; BS, Geneva College; MDiv, Westminster Theological Seminary; MA, University of Pittsburgh; MA, Geneva College, PhD, University of Pittsburgh.

Mark Porter (1997), Associate Professor, Degree Completion Program; BA, Grove City College; MDiv, Westminster Theological Seminary; EdD, Indiana University of Pennsylvania.

Daniel H. Raver (1980), Associate Professor; BSBA, Geneva College; Robert Morris College; MBA, University of Pittsburgh; CPA.

Robert Reith (2008), Associate Professor of Business; BA, Grove City College; MBA, University of Pittsburgh; J.D., Duquesne University.

Diana Rice (2005), Associate Professor of Psychology and Chair, Department of Psychology, Counseling, and Human Services; BA, Houghton College; MS, Syracuse University; PhD, Syracuse University.

Amy C. Russin (2007), Assistant Professor of Accounting; BSBA and MBA, Geneva College; CPA.
Jeffrey D. Santarsiero (1988), Instructor of Physical Education, Head Coach men's basketball ; BS, Nyack College; MS, United States Sports Academy.

Daryl F. Sas (1988), Professor of Biology and Chair, Department of Biology; BA, Dordt College; Mankato State University; PhD, University of Minnesota.

John Bock Schaefer (1962), Associate Professor of Physics; SB, Massachusetts Institute of Technology; MS, CarnegieMellon University; University of South Carolina.

Jeffrey Schindel (2009), Instructor of Communications; BS, MS Geneva College; doctoral candidate, Duquesne University.
Stephanie Schindel (1995), Assistant Professor of Psychology; BS, Geneva College; MA, Geneva College.
Karen Schmalz (2001), Professor of Special Education and Director, MEd in Special Education Program; BS, Geneva College; MEd, Shippensburg University; EdD, Regent University.

David W. Shaw (1990), Professor of Mechanical Engineering; BSME, Geneva College; MS, PhD, The Ohio State University; PE.
C. Scott Shidemantle (1997), Associate Professor of Biblical Studies and CMN Program Director; BA, Slippery Rock University; MDiv, Gordon-Conwell Theological Seminary; ThM, Princeton Theological Seminary; PhD, Trinity Evangelical Divinity School.

Wendy Shidemantle (1997), Administrator and Assistant Professor of Language Studies; BA, MA, West Virginia University.

Cathy Sigmund (2000), Professor of Psychology, Counseling, and Human Services; BS, Geneva College; MS, PhD, The Pennsylvania State University.

Andrea Smidt-Sittema (2006), Assistant Professor of History; BA, Calvin College; MA, PhD Ohio State University.
David K. Smith (2001), Professor of Music; BMus, Wheaton Conservatory; MMus, DMA, Indiana University School of Music.

Dean Smith (1990), Professor of Biblical Studies and Chair, Department of Biblical Studies and Philosophy; BA, Geneva College; MDiv, Reformed Presbyterian Seminary; DMin, Reformed Theological Seminary, Orlando.

Kenneth A. Smith (2004), President; BA, BSBA, Geneva College; MPIA, University of Pittsburgh; PhD, University of Maryland.

John W. Stahl (1985), Professor of Chemistry and Chair, Department of Chemistry; BS, Geneva College; PhD, The Pennsylvania State University.

John W. Stein (1995), Professor of Mathematics and Astronomy; BS, Case Institute of Technology; PhD, University of Pittsburgh.

Melinda R. Stephens (1998), Dean of Academic Programs and Associate Professor of Chemistry; BS, Geneva College; PhD, University of Pittsburgh.

Alan W. Sumner (1989), Head Baseball Coach, Associate Athletic Director for men; BSBA, Geneva College; MS; The United States Sports Academy.

Lynda A. Szabo (1997), Professor of English; BA, Geneva College; MA, PhD, Duquesne University.
Murat Tanyel (2003), Professor of Engineering; BS, Bogazici University of Istanbul; MS, Bucknell University; PhD, Drexel University.

Terry Thomas (1992), Professor of Biblical Studies; BA, Grove City College; MA, Pittsburgh Theological Seminary; PhD, University of Pittsburgh.

Marjory Tobias (2005), Assistant Professor of Biology; BS, Geneva College; MS, Auburn University.
Yvonne D. Trotter (2005), Assistant Professor of Education; BS, Kent State University; MS, University of Dayton; PhD, Kent State University.

Gary VanderPlaats (2010), Associate Professor of Busienss; BA, Dordt College; MBA, The University of Iowa; DBA, Anderson University.

Maureen Vanterpool (2000), Associate Professor of Leadership Studies; BA, Howard University; MA, College of the Virgin Islands; PhD, The Ohio State University.

Melinda Wagner (2008), Instructor of Communications; BA, Geneva College.
Leila L. Wallace (1989), Assistant Professor of Computer Science and Chair, Department of Computer Science, Mathematics, and Physics; BS, Geneva College; MS, University of Pittsburgh.

Jonathan M. Watt (2000), Professor of Biblical Studies; BS, Syracuse University; MDiv, Reformed Presbyterian Theological Seminary; MA, PhD, University of Pittsburgh.

Terri R. Williams (1986), Dean of Faculty and Administration and Professor of Psychology; BA, Anderson University; MA, PhD, Michigan State University.

Keith Willson (2005), Assistant Professor of Mathematics and Physics; BS, Geneva College; MS, Carnegie Mellon University; PhD, Carnegie Mellon University.

Brian Yowler (2005), Assistant Professor of Biology; BS, Indiana University of Pennsylvania; PhD, Penn State University College of Medicine.

## Adjunct Faculty

Susan L. Brandt (1996), Adjunct Assistant Professor of Education; BS, North Dakota State University; MEd, National Louis University, Germany.

Carole Fedeles (1988), Adjunct Assistant Professor of Education; BA, Geneva College; MA, University of Pittsburgh
Richard Grassel (1999), Adjunct Assistant Professor of Student Ministry: BA, Geneva College; MA, doctoral candidate, Trinity Episcopal School for Ministry.

Kenneth Hoffman (1982), Adjunct Assistant Professor of Biblical Studies; BS, University of Pittsburgh; MS, Purdue University; MDiv, Reformed Presbyterian Theological Seminary.

Todd M. Hughes (1993), Adjunct Assistant Professor of Speech Communications; BA, MA, Geneva College.
Brandilyn Gribble Mathers (2004), Associate Professor of Education; BA, Kenyon College; MEd, The Pennsylvania State University; PhD, University of Pittsburgh
Donald R. McBurney (1997), Adjunct Assistant Professor of Mathematics; BS, Geneva College; MS, State University of New York at Binghamton.

William R. McGary (1980), Adjunct Assistant Professor of English; BS, Slippery Rock University; MEd, Westminster College; DMin, Union Theological Seminary.

Richard A. Noble (2007), Adjunct Assistant Professor of Communication; BA, Geneva College; M.Div. and D.Min., Gordon-Conwell Theological Seminary.

David D. Willson (1988) Adjunct Associate Professor of Scientific Studies; BS, Geneva College; Master's Equivalent, PA Department of Education.

## Courtesy Faculty Appointments

Theresa McCreary (2009), Medical Technology Program Director, Memorial Medical Center, Johnstown, PA.
A
A Curricular Vision for Geneva College ..... 9
Academic Advising ..... 173
Academic Continuation ..... 25
Academic Counseling Center ..... 177
Academic Grievance ..... 23
Academic Integrity ..... 23
Academic Standing ..... 25
Academic Warning ..... 26
Accounting ..... 45
Accreditations and Memberships ..... 13
ACS Professional Concentration ..... 49
Admissions ..... 183
Adult Continuing Education (PACE) ..... 28
Advanced Placement ..... 184
Aims of the College. .....  7
Alpha Chi ..... 20, 25
American Studies Program ..... 32, 100
Applied Mathematics ..... 57
Applied Music Policies ..... 28
Arcadia Center for Education Abroad ..... 97
Art Institute of Pittsburgh ..... 32, 97
Associate in Business ..... 30, 44, 47
Associate in Engineering. ..... 71
Athletic Eligibility ..... 25
Au Sable Institute ..... 32, 40, 97
Auditing ..... 28, 45, 126
Australia Studies Centre ..... 32, 100
B
Biblical Languages ..... 33
Biblical Studies ..... 34
Biochemistry ..... 48, 50
Biology ..... 40
Biopsychology Major ..... 89
Books and Supplies ..... 28
Bridge Program ..... 93, 94
Buildings ..... 180
Business. ..... 45
Business Administration and Aviation Dual Degrees ..... 48
C
Calendars .....  .4
Cardiovascular Technology ..... 13, 42, 199
Career Development. ..... 176
Center for Urban Biblical Ministry (CUBM) ..... 32, 93
Center for Urban Theological Studies (CUTS0 ..... 32, 93
Change of Grade ..... 23
Chapel ..... 175
Chemical Engineering ..... 52
Chemistry ..... 49, 50, 51
China Studies Program ..... 32, 100
Christian Ministries ..... 33, 36
Christian School Teaching ..... 64, 65
Civil Engineering Concentration ..... 67
Geneva College204
Class Attendance ..... 21
Class Load ..... 21
Classification of Students ..... 20
College Personnel ..... 193
Communication ..... 52
Communication Activities ..... 174
Communication Disorders ..... 55
Community Ministry ..... 32, 94
Computer Engineering Concentration ..... 68
Computer Science ..... 56
Contemporary Music Center. ..... 32, 100
Core Requirements ..... 15
Cornerstone Christian College. ..... 32
Cornerstone Institute ..... 98
Courtesy Faculty Appointments ..... 203
Covenanter Theological Institute ..... 32, 98
Creative Honors ..... 29
Creative Writing ..... 76
Credit by Examination. ..... 184
Credit-No Credit ..... 27
Credit-No Credit Courses ..... 27
Criminal Justice Minor ..... 79
Cross Registration ..... 20
Crossroads: ..... 176
D
DCP Research Honors ..... 29
Dean's List. ..... 25
Deficiencies ..... 184
Definition of Terms ..... 14
Degree Completion Program (DCP) ..... 32, 93
Degree Requirements ..... 15
Degrees ..... 30
Denomination Commitment ..... 12
Department of Chemistry ..... 48, 201
Disability Services ..... 177
Discipleship Groups and Bible Studies ..... 176
Dismissal ..... 27
Doctrinal Statement of the College ..... 5
Drama ..... 174
Drop Policy ..... 20
E
Early Admission ..... 185
Effective Date of Catalog ..... 15
Electrical Engineering Concentration ..... 69
Elementary Certification ..... 60
Eligibility ..... 190
Engineering ..... 66
English ..... 72
English as a Second Language ..... 76
English Education ..... 73
English Language Acquisition Institute (ELAI) ..... 187
Environmental Science ..... 42
Excused Absences ..... 21
Faculty ..... 197
Faith Opportunities ..... 175
Federal Aid Refund Policy ..... 191
Fees ..... 189
Finals Week Policy ..... 21
Finance/Economics Concentration ..... 31, 46, 48
Financial Aid ..... 185, 190, 191
Focus on the Family Institute (FFI) ..... 32, 99
Foundational Concepts .....  5
G
General Communication Concentration ..... 53
General Requirements ..... 15
Geneva College Semester in Rome ..... 99
Genevans ..... 174
Grade Point Average (GPA) ..... 22
Grade Report ..... 23
Grading System ..... 22
Graduation ..... 28
H
Hardware Concentration ..... 56
Health Insurance ..... 188
History ..... 77
Honors Courses ..... 20
Housing ..... 182
Human Resources ..... 32, 94
Human Services. ..... 32, 90, 95
I
In Progress Grade ..... 23
Incomplete Grade ..... 23
Independent Major ..... 19
Independent Study ..... 19, 20
Information Systems Concentration ..... 56
Informational Writing. ..... 31, 76
Integrated Media Concentration ..... 54
Intercollegiate Athletics ..... 175
Interdisciplinary Engineering ..... 70
International Student Services ..... 177
International Students ..... 187
Internship ..... 19
Intramural Programs. ..... 175
J
Jazz Band ..... 81, 174
Jerusalem University College ..... 32, 99
L
Languages and Cultures ..... 80
Latin American Studies Program ..... 32, 101
LCC International University ..... 32, 99
Learning and Transition ..... 173
Limitations ..... 20
Literature ..... 73
Los Angeles Film Studies Center (LAFSC) ..... 32, 101

## M

Majors. ..... $18,30,45,75,151$
Management/HRM ..... 42, 45
Marching Band ..... 16, 81, 161, 174
Marketing Concentration ..... 46
Master of Arts in Counseling ..... 30, 32, 104
Master of Arts in Higher Education ..... 30, 32, 110
Master of Business Administration ..... 30, 32, 113, 114
Master of Education in Reading ..... 30, 32, 116
Master of Education in Special Education. ..... 30, 32, 118
Master of Science in Cardiovascular Science. 30, 32, 120
Master of Science in Organizational Leadership ... 30, 32,123
Math Proficiency ..... 184
Mathematics ..... 58
Mathematics Education ..... 57
McCartney Library ..... 180
Mechanical Engineering Concentration ..... 69
Medical Services ..... 178
Medical technology ..... 43
Middle East Studies Program ..... 32, 101
Minors ..... 19, 31, 72, 86
Mission Statement of the College. ..... 5
Multi-Ethnic Services ..... 177
Music ..... 85
Music Business ..... 84
Music Education ..... 83
Music Performance ..... 82, 83
Musical Organizations ..... 81
$N$
New Freshmen Students ..... 183
New Song ..... 174
Nursing ..... 31, 43, 44
O
Off-Campus Study Opportunities ..... 97
Organizational Development ..... 96
Oxford Summer Programme (OSP) ..... 32, 101
P
Parental Rights ..... 179
Parking ..... 178
Peer Tutoring ..... 177
Philosophy ..... 38
Physical Education ..... 86, 202
Physics ..... 58
PISGAH ..... 175
Political Science ..... 78
Practicum ..... 19
Pre-Law Program ..... 31, 91
Pre-Medical ..... 31, 92
Privacy Issues ..... 178
Probation ..... 26
Psychology ..... 87
Public Relations Concentration ..... 54
R
Rates and Fees ..... 189
Readmission ..... 27
Refunds ..... 190
Registration ..... 20
Research Honors ..... 29
Residence Life ..... 173
$S$
Scholars' Semester in Oxford (SSO) ..... 101
Scholarships ..... 190
Science/Math Programming Concentration ..... 56
Second Degrees ..... 30
Secondary Education ..... 61
Semester In Spain ..... 99
Service Opportunities ..... 176
Sociology ..... 79
Spanish ..... 80
Special Education ..... 61
Special Study ..... 19
Specialized Summer Courses ..... 20
Sport Coaching ..... 87
Sport Management ..... 87
Sport Management Concentration ..... 47
Statement of Commitment ..... 7, 8
Student Ministry ..... 39
Student Organizations ..... 175
Student Outcomes .....  8
Student Publications ..... 173, 174
Student Teaching. ..... 63
Student Union ..... 173
Summer Preview ..... 13
Suspension ..... 26, 27
Symphonic Band ..... 81, 161, 174
$T$
Teacher Certification Requirements ..... 59
Theatre Concentration ..... 53
Transfer Students ..... 185
Transient Students ..... 188
U
Uganda Studies Program ..... 32, 102
Undergraduate Course Descriptions ..... 126
Undergraduate Honors ..... 28
Undergraduate Majors/Programs ..... 30
Unexcused Absences ..... 22
V
Valedictorian ..... 28
Visual Communication Concentration. ..... 54
W
Washington Journalism Center (WJC) ..... 32, 102
Web Technology Concentration ..... 56
WGEV ..... 174
Withdrawal From The College ..... 27
Writing ..... 74
Writing Concentration ..... 54

