Course Catalog

2007 - 2008

neumont
UNIVERSITY

A HIGHER LEVEL OF HIGHER EDUCATION
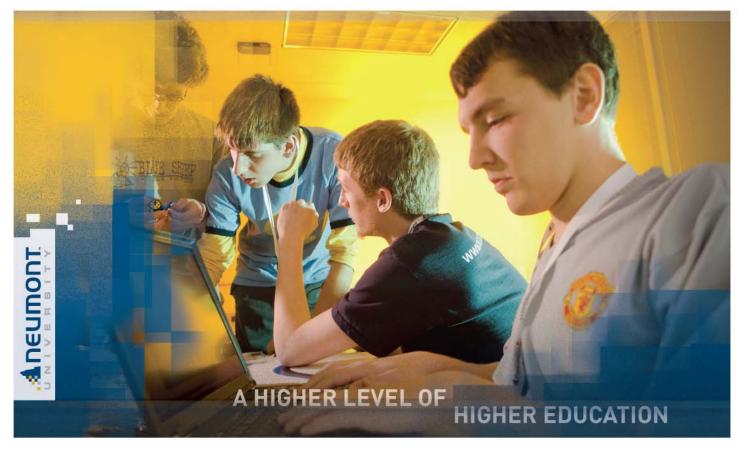
www.neumont.edu

Neumont University
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Neumont University is accredited by the Accrediting Council for Independent Colleges and Schools. For complete information concerning accreditation, please refer to the Accreditation Section of this catalog.

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SEPTEMBER 2007 STUDENT CATALOG

2007-2008 ACADEMIC CALENDAR

2007

Summer Quarter
July 9 ....New Student Orientation
July 10...First Day of Class
July 13* ....Registration Deadline
July 17... Add/Drop Deadline
July 24 .... Pioneer Day (no class)
September 3 ....Labor Day (no class)
September 14................................Last Day of Class

Fall Quarter
October 8 ....New Student Orientation
October 9..First Day of Class
October 12* ....Registration Deadline
October 16 .... Add/Drop Deadline
November 16..Fall Graduation
November 22-23 .... Thanksgiving Break (no class)
December 14 ....Last Day of Class

2008

Winter Quarter
January 14......................................New Student Orientation
January 15 ....First Day of Class
January 17*... Registration Deadline
January 21 ....MLK Day (no class)
January 23 ....Add/Drop Deadline
February 18 ....President's Day (no class)
March 21 .... Last Day of Class

Spring Quarter
April 14 ....New Student Orientation
April 15 ....First Day of Class
April 17 *.. Registration Deadline
April 22 ....Add/Drop Deadline
May 16...Spring Graduation
May 26... Memorial Day (no class)
June 20 .... Last Day of Class

Summer Quarter
July 14 ....New Student Orientation
July 15 ....First Day of Class
July 17 *... Registration Deadline
July 22 ....Add/Drop Deadline
July 24 .... Pioneer Day
September 1 ....Labor Day (no class)
September 19 .... Last Day of Class

Fall Quarter
October 13 ....New Student Orientation
October 14 ....First Day of Class
October 16 *... Registration Deadline
October 21...Add/Drop Deadline
November 14 .... Fall Graduation
November 27-28 ....Thanksgiving Break (no class)
December 19... Last Day of Class

*$100 Late Registration Fee after the registration deadline for Continuing Students

PRESIDENT'S MESSAGE

Welcome Students,

It is my privilege and pleasure to welcome you to Neumont University.

Neumont University offers Bachelor of Science in Computer Science degree, Master of Science in Computer Science and Master of Business Administration degrees. Our mission is to educate the most sought-after software developers. We're accomplishing this mission through a rigorous project-based curriculum in Computer Science. Students are mentored by Neumont's world-renowned faculty in small classes focused on the most advanced technologies, data modeling methodologies and business practices.

Neumont University is addressing the critical skills gap that exists between what traditional colleges and universities provide computer science graduates and what employers require. Global 1000 employers seek to hire technology professionals who possess a combination of theoretical knowledge combined with real-world experience building software applications with advanced technology.

The hallmark of a Neumont University education is its highly relevant project-based curriculum delivered in concert with leading employers. Students graduate with a strong foundation in technical skills and standards, an understanding of the business environment, and the ability to communicate and function as members of teams. At Neumont University we take great pride in the outstanding employment opportunities presented to our students. These occur in the classrooms, on enterprise projects, in interactions with other students and faculty. We invite our growing lists of employer partners to campus each quarter to interview and hire our graduates, thus providing our students with a rich array of employment opportunities prior to graduation.

I encourage you to discover what makes our program respected, our graduates in such high demand, and the Neumont experience the best value for students in Computer Science education by exploring our program as outlined in this catalog and on our web site (www.neumont.edu). The Neumont University team stands ready to assist you.

Sincerely,

Graham Y. Doxey
President

MISSION
Neumont University's mission is to educate the most sought-after software developers.

INSTITUTIONAL GOALS
In support of our mission, the University has adopted the following goals:

Student Learning Goals
1. Provide students with the opportunity to develop the necessary technical, business, and collaboration skills, knowledge, and experience to enter the workplace as productive, competent software development or informatics professionals.
2. Provide learning environments where students are immersed in daily application of software development, computer science, and informatics principles and practices.
3. Foster strong relationships with leading software development companies and professionals to situate student learning in the context of authentic problems faced by the technology industry.
4. Create opportunities for students to develop effective collaboration and interpersonal communication skills that will transfer to building successful relationships and teams in the workplace.
5. Advance the state of current knowledge and skills in model transformations, and information system architecture and share this knowledge with students through teaching, applied research, development, and publication.
6. Improve student learning by innovating and applying best practices in the areas of project-based learning, competency-based assessment, and teaching effectiveness during all stages of learning.
7. Encourage creativity and individual expression by providing rich project experiences that mirror the target employment environments.
8. Build a bridge between students and employers by engaging in community and global software development projects.
9. Assess the development and progress of instruction to improve the student learning experience.

Student Service Goals
1. Help students adapt to an intensive, accelerated project-based learning environment that is significantly different from a traditional educational environment.
2. Reward those students who demonstrate self-discipline, motivation, and academic achievement.
3. Create a student life environment that fosters leadership development, accountability, professional work standards and ethical decision making
4. Provide a living environment conducive to academic success at a reasonable price with activities conducive to the personal and social growth of residents
5. Enable individual success through academic and non-academic advising, referrals to community resources, student life programming, and educational accommodations for students with documented disabilities
6. Care for the holistic needs of students
7. Help students make appropriate class registration choices to further their academic development.

HISTORY, LEGAL CONTROL AND GOVERNANCE
Neumont University is operated by Neumont University, LLC. Neumont University, LLC is a wholly owned subsidiary of Neumont Holdings, LLC, a Delaware limited liability company, whose principal offices are located at 10701 South River Front Parkway, Suite 300, South Jordan, Utah 84095. Neumont Holdings, LLC Officers include Graham Y. Doxey, President, and Maurine A. Findley, Executive Vice President.

Neumont University introduced its Computer Science program at its Salt Lake City Campus in January 2004.

Neumont University operates a branch campus, Morrison University, in Reno Nevada, which offers programs in Computer Science, Accounting and Management.

ACCREDITATION
The University is accredited by the Accrediting Council for Independent Colleges and Schools (ACICS) to award a Bachelor of Science degree in Computer Science, Master's of Business Administration degree and Master of Science degree in Computer Science. The Accrediting Council for Independent Colleges and Schools is listed as a nationally recognized accrediting agency by the United States Department of Education and is recognized by the Council for Higher Education Accreditation. The Accrediting Council for Independent Colleges and Schools (ACICS) is located at 750 First Street, NE, Washington, D.C. 20002; (202) 336-6780.

LICENSURE AND APPROVALS
Neumont University Salt Lake City Campus is registered under the UTAH POSTSECONDARY PROPRIETARY SCHOOL ACT (Title 13, Chapter 34, Utah Code). Registration under the Utah Postsecondary Proprietary School Act does not mean that the state of Utah supervises, recommends, or accredits the institution. Questions about the registration of this institution should be directed to: Utah Division of Consumer Protection, Heber Wells Building, Second Floor, 160 East 300 South, SM Box 146704, Salt Lake City, Utah 84114-6704. Their telephone number is (801) 530-6601.

CAMPUS LOCATIONS
Neumont University (Main Campus and Corporate offices)
10701 South Riverfront Parkway Suite 300
South Jordan, UT 84095
(801)302-2800
Fax (801)302-2811

Morrison University (Branch Campus)
10315 Professional Circle Suite 201
Reno, NV 89521
(775)850-0700
Fax (775)850-0711
www.morrison.neumont.edu

General Education courses in the approved Neumont University or Morrison University programs may be transferred between campuses. However, it is the student's responsibility to determine whether credits or degrees from the institution will transfer to other institutions.

STUDENT COMPLAINTS AND GRIEVANCE

Students who are unable to achieve resolution of a complaint may call the toll-free Student Hotline at (866) 801-1300 or seek the assistance of the Campus Executive Director.

If a student feels that the University has not adequately addressed a complaint or concern, the student may consider contacting the Accrediting Council, at 750 First Street, N.E., Suite 980, Washington, DC 20002-4241, (202) 336-6780.

Students may also contact the Utah State Commission on Postsecondary Education at the Heber Wells Building, Second Floor, 160 East 300 South, SM Box 136704, Salt Lake City, UT 84114-6704, (801) 530-6601.

Complaints should be directed to the Office of Students Services. If Student Services is not able to address the student's complaint, the student may also seek the assistance of the Director of Operations, call the toll-free Student Hotline at (866) 801-1300 or contact the Executive Director.

Students will NOT be subject to unfair actions as a result of initiating a complaint.

STATEMENT OF NON-DISCRIMINATION

Neumont University does not discriminate on the basis of race, color, national origin, sex, religion, age, marital status, veteran status, or disability, in the administration of its educational and admissions policies, scholarship and loan programs, or other university administered programs.

Neumont University complies with Title VI of the Civil Rights Act of 1964, the Age Discrimination in Employment Act of 1967, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and the Americans with Disabilities Act of 1990. The Americans with Disabilities Act of 1990, as amended, protects qualified applicants, students, and employees with disabilities from discrimination in hiring, promotion, discharge, pay, job training, fringe benefits, classification, referral, and other aspects of employment on the basis of disability. The law also requires that covered entities provide qualified applicants, students, and employees with disabilities with reasonable accommodations that do not impose undo hardship.

UNDERGRADUATE PROGRAMS

ADMISSIONS

To apply for admittance to Neumont University the potential student submits the following documents for review by the Acceptance Committee:

- Application
- Student questionnaire
- Proof of high school graduation or its equivalent
- Evidence of academic performance, such as standardized test scores and/or transcripts

Upon submission of all documents, the applicant's file is scheduled for review by the Neumont University Acceptance Committee. Applicants are evaluated for their academic potential, technical knowledge, and level of motivation.

Students may apply for admittance at any time. Applicants are informed of their acceptance status after all information has been received and reviewed. The offer of admission will be valid only for the term requested on the application. Upon written request, a student may defer their enrollment at the University for one quarter beyond the quarter of acceptance. The written request should be received by the Registrar no later than thirty days prior to the start of the quarter for which the student was admitted.

INTERNATIONAL APPLICANTS

Neumont University is authorized under federal law to enroll non-immigrant students. An international application for admission is considered complete and ready for review when the following documents and records have been received:

1. A completed application signed, dated, and accompanied by a non-refundable international student application fee of $125. This fee must be drawn from a U.S. bank account, be an international money order, or be paid by credit card.
2. In order to satisfy the general admissions requirements listed above, foreign educational documents, including proof of high school graduation or its equivalent, (if the institution attended was not a U.S. institution) must be evaluated by a credential evaluation service that is a member of NACES at the applicant's own expense. For a complete list of NACES credential evaluation services visit www.naces.org.

    You will need to authorize the credentials evaluating company to send your documents directly to Neumont University after evaluation.

World Education Services, Inc Bowling Green Station P.O. Box 5087 New York, NY 10274-5087 Tel: (212) 966-6311 Fax: (212) 739-6100 info@wes.org	Josef Silny & Associates, Inc. International Educational Consultants 7101 S.W. 102 Ave Miami, FL 33173 Tel: (305) 273-1616 Fax: (305) 273-1338 www.jsilny.com
World Educational Services, Inc. 665 3rd Street Suite 400 San Francisco, CA 94107 Tel: (415) 677-9378 Fax: (415) 677-9333 www.wes.org/	Educational Credential Evaluators, Inc. P.O Box 514070 Milwaukee, Wisconsin 53202-3470 Tel: (414) 289-3400 www.ece.org eval@ece.org

3. Proven English language proficiency is required if English is not the applicant's first language. The preferable method of proving English proficiency is official test results of the TOEFL (Test of English as a Foreign Language). Applicants with TOEFL scores of 500+ (173+ computer-based score) will be considered for admission. In addition to or in place of the TOEFL exam, the University, at its discretion, may require students to complete a telephone interview in English.
4. Official test results of the SAT or ACT are recommended.

Once these documents are complete, the application will be submitted for review. Admitted applicants will then need to provide the following:

1. An official bank statement from the bank (not just a receipt) showing sufficient funds to cover expenses for a calendar year of attendance at Neumont University. Please contact your admissions representative for the current dollar amount. F-1 students are required to provide proof of additional funds for each F-2 dependent. If the applicant has a sponsor, the sponsor will need to complete the affidavit of support. Scholarship money can be applied toward the certifying amount.
2. All international students who are currently studying in the United States on an F-1 student visa and who are transferring from another U.S institution are required to submit a Transfer Eligibility Form prior to the issuing of the new I-20.

All international student scholarships are contingent on meeting I-9 eligibility requirements and lawful F-1 status. Admitted, eligible students will be issued an I-20 form from Neumont University.

TRANSFER STUDENTS

Neumont University may award transfer credit for courses that meet our evaluation criteria from an institution accredited by an agency recognized by the U.S. Department of Education. Courses taken at a foreign institution will be accepted for transfer on the basis of the report of a credential evaluation service.

For courses to be considered for transfer credit, a student must request a transfer credit review from the Office of Academic Programs and submit official transcripts and course descriptions from the time period when the courses were taken. Transfer credit requests should be made within the first quarter of attendance at Neumont University.

Credit will be accepted only for courses in which a grade of "C" or higher was earned. The number of credits awarded for a course will not exceed the number of credits offered for the related Neumont University course.

Computer Science Courses:

To receive transfer credit for a Neumont University required Computer Science course, the student must pass a competency test for that specific course. The transferring course must match the Neumont University course for content and general outcome requirements on the basis of review by the Office of Academic Programs of the transcripts and course description in the original institution's catalog or class syllabus from the time period the course was taken.

General Education Courses:
To receive transfer credit for a Neumont University required General Education course, the transferring course must be comparable to the Neumont University course for content and general outcome requirements. The Office of Academic Programs will review the transcripts and course description in the original institution's catalog or class syllabus from the time period the course was taken.
Neumont University may accept transfer credits to meet the elective General Education course requirements as long as the course is in a General Education subject area that Neumont University offers.

The maximum number of General Education transfer credits that Neumont University will award for previous coursework is 54 credit hours.

Advanced Placement and CLEP Examination Acceptance Policy
Neumont University allows credit for Advanced Placement (AP) and CLEP examinations. For detailed information please contact the Office of Academic Programs.

Credit by Advanced Standing
Neumont University encourages students to seek advanced standing credit for knowledge they may have acquired in a variety of ways. Students enrolled at the University and former students eligible to re-enroll may take advanced standing examinations for credit provided that they have not been enrolled in an equivalent course at Neumont.

A student enrolled in and attending a course may earn credit in that course by advanced standing examination up to the end of the second week of class. If a student earns credit in the course by examination, the student may drop the course enrollment.

Successful completion of an advanced standing examination will earn the student credit equivalent to the course being challenged. No letter grade is assigned to the course for that student.

Should a student fail an advanced standing examination, no grade will be recorded. In addition, a student may not receive credit for a repeat of an exam previously failed.

Neumont University offers a number of advanced standing examinations. The fee for each examination is $10.00 per credit hour. Interested students should consult with the Office of Academic Programs.

Military Credit
Programs at Neumont University Salt Lake City Campus are approved for veterans training.

Neumont University will evaluate military experience for university credit, based upon the Army / ACE Registry Transcript System (AARTS) and the Sailor / Marine / ACE Registry Transcript (SMART) systems.

AARTS transcripts are available to regular Army enlisted soldiers and veterans, as well as active duty Army National Guard personnel and reservists. SMART transcripts supply similar information for active duty Sailors and Marines, enlisted and officers, reserve component personnel, and separated or retired Sailors and Marines.

Only courses, training, or military experience that fulfills Neumont University General Education requirement categories will be evaluated from official AARTS or SMART transcripts.

As with any request for transfer credits at Neumont University, the official, mailed transcript should be received by the Registrar's Office by the end of your first quarter at Neumont University.

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BACHELOR OF SCIENCE IN COMPUTER SCIENCE

INTRODUCTION
The Neumont University Bachelor of Science in Computer Science (BSCS) distinguishes itself with an integrated, project-based curriculum that focuses on the skills most valued by today's employers. Graduates of this innovative program will be motivated, entry-level software developers who are equipped for success in the corporate world. All Computer Science projects and coursework are designed to provide Neumont University graduates with a strong foundation in technical skills and standards, an understanding of the business environment, and the ability to communicate and function well as members of teams.

Upon completing the instructional and project hours, the Neumont University graduate has a baccalaureate degree in Computer Science and a portfolio of project work.

PROGRAM OVERVIEW

Students attend classes and work on projects generally between 8:00 a.m. and 5:00 p.m., Monday through Friday. Many assignments are performed in groups as part of lab and project work.

PROGRAM OBJECTIVES
- Develop software using modern languages and integrated development environments
- Understand and employ a variety of algorithms and data structures
- Design system architectures
- Understand and employ established and emerging software standards
- Model and develop information systems
- Develop applications with a variety of deployment mechanisms
- Understand software development in the context of business
- Participate in a range of software development lifecycle phases using a variety of software development methodologies
- Effectively communicate and collaborate in a software development environment
- Integrate disparate areas of technical and non-technical expertise through real-world projects

Computer Science Project Courses
Neumont University believes the key to a useful and applicable degree in Computer Science is team-based, hands-on experience with real software projects. In support of this, students spend the majority of their time working in teams on pertinent, real-world software development projects.

There are a variety of project environments in which students work, including internal projects and external projects. Students work on internal projects while they are learning the intricacies of the programming languages and development environments. Internal software projects are controlled, designed, and structured by Neumont University instructors to ensure that students master the required competencies.

Students will also participate in external enterprise projects. Enterprise projects are those projects developed for external customers with real business needs and constraints. These projects give students exposure to the types of environments they may encounter in their careers.

General Education Courses
General Education courses provide instruction in foundational subject areas. While these courses are not tied directly to projects, whenever possible, general education topics are supportive of what students are learning in their projects.

Course Naming Conventions
All courses with numbers between 100 and 299 are lower level courses. Numbers between 300 and 499 are upper level courses. The following naming conventions are used to identify all the categories of courses:

BU:	Business	MA:	Math
CS:	Computer Science	PE:	Physical Education
FC:	Fine Arts and Communication	PS:	Physical Science
HU:	Humanities	SS:	Social Science

GRADUATION REQUIREMENTS
To qualify for graduation with a Bachelor of Science Degree in Computer Science, students are required to accomplish the following:

- Complete a minimum of 180 quarter credit hours with an average grade of "C" (Cumulative Grade Point Average of 2.0) or higher for all work taken at the University
- Complete at least 90 credit hours in Computer Science
- No more than 10 credit hours of Industry Standard Product and Technology labs may be counted toward BSCS degree
- Must have at least 45 credit hours of upper level courses
- Must take a minimum of 38 credit hours in Project courses.
- Must complete a minimum of 6 credits of Enterprise Projects.
- Complete a minimum of 54 quarter credit hours in General Education
- Maximum of 12 *elective* credits in any one General Education Category (ex. PS, SS, HU, FC, PE, MA, BU)
- Abide by all University rules and regulations
- Must earn a minimum of 'C' in each required course
- In order to advance to a course with a prerequisite the student must earn a minimum of 'C in the prerequisite course', or receive instructor permission.

BSCS Program Plan

Minimum General Education Credits Required		54
Required General Education Courses	20	
Elective General Education Courses	34	
Minimum Computer Science Credits Required		**90**
Required Core Computer Science Courses min	50	
Required Computer Science Project Courses	38	
Minimum Elective Computer Science Courses	2	
Minimum Additional Elective Credits Required		**36**
Total Required for BS in Computer Science		**180**

Required General Education Courses   20 credits

FC120	Spoken Communications	3
FC125	Collaborative and Interpersonal Communications I	2
HU110	Logic I	3
HU121	English Composition	3
MA110	Sets, Probability, and Number Systems	3
MA150	Trigonometry	3
MA250	Calculus	3

Elective General Education Courses   34 credits min.
Select a minimum of 34 credit hours from this list:

BU101	Introduction to Personal Finance	2
BU120	Business Communications	3
BU121	Introduction to Accounting	3
BU201	Introduction to Economics	3
BU290	Business Fundamentals	3
BU299	Professional Communications	1
BU350	Entrepreneurship and Venture Capital	2
BU400	Professional Portfolio	2
FC101	Art Appreciation	2
FC110*	Introduction to Digital Photography	2
FC126	Collaborative and Interpersonal Communications II	2
FC152	Japanese Language and Culture I	3
FC153	Japanese Language and Culture II	3
FC156	Chinese Language and Culture I	3
FC157	Chinese Language and Culture II	3
FC160	Arabic Language and Culture I	3
FC161	Arabic Language and Culture II	3
FC170	Spanish Language and Culture I	3
FC171	Spanish Language and Culture II	3
FC200	Theater	2
FC201	Music Appreciation	2
FC210	Music Composition	2
FC220*	Graphic Design	2
FC301	Leadership Development	3
HU120	Modern Literature	3
HU210	Logic II	3.5
HU220	Introduction to Philosophy	2
HU221	Intermediate English Composition	2
HU230	Linguistics	3
HU305	Ethics	2
HU310	Critical Thinking	2
HU321	Technical Writing	3
MA105	College Algebra	3
MA210	Linear Algebra	3
MA220	Numeric Analysis	3
MA305	Problem Solving	3
MA350	Statistics	3
PE160	Personal Fitness	2
PE170	Healthy Living	2
PE180*	Golf	2
PE190*	Strength Training	2
PS115	Introduction to Biology	3
PS201	Astronomy	2
PS210	Environmental Studies	2
PS220	Introduction to Physics	3
SS140	Introduction to Social History	2
SS215	Globalization and Intern'l Relations in the Internet Age	2
SS230	World Cultures I	3
SS240	Social Psychology	3
SS315	Culture, Knowledge and Society	3
SS320	Group Dynamics	3
SS350	Intellectual Property for Programmers	2

* Additional class fees required

Additional Elective Courses (CS/GenEd/Other)   36 credits min.

Must have a minimum of 36 additional elective credits. These can be selected from either the Computer Science Project Courses, Elective Computer Science, Elective General Education, or Other Elective Courses.

Required Core Computer Science Courses   50 credits min.

CS150	Introduction to Object Oriented Programming	11
CS120	Topics in Software Development	5.5
CS130	Relational Databases I	3.5
CS140	Information Modeling I	3.5
CS160	Development in the .NET Environment I	3
CS180	Introduction to Java Development	3.5
CS230	Relational Databases II	3.5
CS240	Information Modeling II	3.5
CS250	Algorithms and Data Structures	3.5
CS260	Development in the .NET Environment II	3
CS280	Introduction to the Java EE Development Environment	3.5
CS360	Development in the .NET Environment III	3
OR		
CS380	Java EE Integration Strategies for SOA	3.5

Required Computer Science Project Courses   38 credits min.
Select a minimum of 38 credit hours from this list (min 6 credits Ent Projects):

CS190	Projects I	6.5
CS192	Projects II	6.5
CS194	Projects III	6.5
CS290	Projects IV	6.5
CS390	Projects V	6.5
CS392	Projects VI	6.5
CS499	Projects VII	6.5
CS490-6	Enterprise Projects I -20 hours/week	6
CS490-9	Enterprise Projects I -30 hours/week	9
CS491-6	Enterprise Projects II - 20 hours/week	6
CS491-9	Enterprise Projects II - 30 hours/week	9
CS491-12	Enterprise Projects II - 40 hours/week	12
CS493-6	Enterprise Projects III - 20 hours/week	6
CS493-9	Enterprise Projects III - 30 hours/week	9
CS493-12	Enterprise Projects III - 40 hours/week	12

Once a minimum of 38 credit hours of project courses have been completed, then additional project courses can be used towards Elective Computer Science Credits.

Elective Computer Science Courses   2 credits min.
Select a minimum of 2 credits from this list:

CS100	Introduction to Computers	1.5
CS105	Using Modern Operating Systems	4
CS205	IT Foundations	3.5
CS235	Model Driven Development I	3.5
CS265	Business Process Management	3.5
CS270L	Industry Standard Product and Technology Lab I	2
CS271L	Industry Standard Product and Technology Lab II	2
CS272L	Industry Standard Product and Technology Lab III	2
CS273L	Industry Standard Product and Technology Lab IV	2
CS274L	Industry Standard Product and Technology Lab V	2
CS282*	Introduction to Flash Development	3.5
CS285	Roles-Based Software Development	3.5
CS305	Networking	3.5
CS310	Software Project Management	4.5
CS312*	Multimedia, Game and Entertainment Systems	3.5
CS315	Software Quality Standards and Assurance	4.5
CS316*	Advanced Flash	3.5
CS320	Software Engineering Methodologies	3.5
CS322	Software Design in UML	3.5
CS324	XML and XSLT	3.5
CS325	Human Computer Interface Design	3.5
CS326	Intelligent Systems	3.5
CS328	Enterprise JavaBeans	3.5
CS331	Microsoft Database Case Study	4
CS332	IBM Database Case Study	4
CS335	Business Modeling and System Design	3
CS365	Service Oriented Architecture Overview	3.5
CS370L	Industry Standard Product and Technology Lab VI	2
CS371L	Industry Standard Product and Technology Lab VII	2
CS372L	Industry Standard Product and Technology Lab VIII	2
CS373L	Industry Standard Product and Technology Lab IX	2
CS374L	Industry Standard Product and Technology Lab X	1
CS400	Operating Systems	3.5
CS405	Rational Application Developer	3
CS410	Software Architectures	3.5
CS415	Patterns	3.5
CS420	Internationalization	4.5
CS422	Financial and E-commerce Systems	4.5
CS424	Advanced Topics in Security	3.5
CS440	Advanced Information Modeling	3
CS465	IT Architecture	3.5

A maximum of 10 credit hours of Industry Standard and Technology Lab may be applied to degree.

* Additional class fees required

Industry Standard Certification Exams recommended
3 MS and 2 Java/IBM Exams

COURSE LISTING

COMPUTER SCIENCE

GENERAL EDUCATION

BUSINESS

BU101	Introduction to Personal Finance	2
BU120	Business Communications	3
BU121	Introduction to Accounting	3
BU201	Introduction to Economics	3
BU290	Business Fundamentals	4.5
BU299	Professional Communications	1
BU350	Entrepreneurship and Venture Capital	2
	Prerequisite: BU290 or instructor approval	
BU400	Professional Portfolio	2
	Prerequisite: CS Projects 190, 192, 194	

FINE ARTS AND COMMUNICATION

FC101	Art Appreciation	2
FC110	Introduction to Digital Photography	2
FC120*	Spoken Communications	3
FC125*	Collaborative and Interpersonal Communications I	2
	Prerequisite: CS190 (May be taken concurrently)	
FC126	Collaborative and Interpersonal Communications II	2
	Prerequisite: FC125	
FC152	Japanese Language and Culture I	3
FC153	Japanese Language and Culture II	3
	Prerequisite: FC152	
FC156	Chinese Language and Culture I	3
FC157	Chinese Language and Culture II	3
	Prerequisite: FC156	
FC160	Arabic Language and Culture I	3
FC161	Arabic Language and Culture II	3
	Prerequisite: FC160	
FC170	Spanish Language and Culture I	3
FC171	Spanish Language and Culture II	3
	Prerequisite: FC170	
FC200	Theater	2
FC201	Music Appreciation	2
FC210	Music Composition	2
FC220	Graphic Design	2
FC301	Leadership Development	3
	Prerequisite: FC125	

HUMANITIES

HU110*	Logic I	3
HU120	Modern Literature	3
HU121*	English Composition	3
HU210	Logic II	3.5
	Prerequisite: HU110	
HU220	Introduction to Philosophy	2
HU221	Intermediate English	2
	Prerequisite: HU121	
HU230	Linguistics	3
HU305	Ethics	2
HU310	Critical Thinking	2
HU321	Technical Writing	3
	Prerequisite: HU121	

MATH

MA105	College Algebra	3
MA110*	Sets, Probability, and Number Systems	3
MA150*	Trigonometry	3
MA210	Linear Algebra	3
	Prerequisite: MA110	
MA220	Numerical Analysis	3
	Prerequisite: MA210	
MA250*	Calculus	3
	Prerequisite: MA150	
MA305	Problem Solving	3
	Prerequisite: MA250	
MA350	Statistics	3
	Prerequisite: MA110	

PHYSICAL EDUCATION

PE160	Personal Fitness	2
PE170	Healthy Living	2
PE180	Golf	2
PE190	Strength Training	2

PHYSICAL SCIENCE

PS115	Introduction to Biology	3
PS210	Environmental Studies	2
PS220	Introduction to Physics	3
PS230	Introduction to Chemistry	3
PS301	Astronomy	2

SOCIAL SCIENCE

SS120	Mapping and Geospatial Information I	3
SS140	Introduction to Social History	2
SS215	Globalization and Intn'l Relations in the Internet Age	2
SS230	World Cultures	3
SS240	Social Psychology	3
SS315	Culture, Knowledge and Society	3
SS320	Group Dynamics	3
	Prerequisite: FC125	
SS350	Intellectual Property	2

*Required Courses   +Can choose between these two courses

COURSE DESCRIPTIONS

COMPUTER SCIENCE

CS100 Introduction to Computing   (1.5 credits)
Introduces the modern Personal Computer (PC), the proper use, maintenance and organization of the PC, and how modern software is generally structured. This is to help students who have little or no experience with their computer.

CS105 Using Modern Operating Systems   (4 credits)
Students learn many of the most productive ways to use modern operating systems like Windows™ and Unix. Students learn those specifics about operating systems that will enable them to be highly effective software developers. Topics of study include roles of the OS kernal, virtual memory handling, and file systems. Students will also explore functions of the operating system that will make them more productive such as shell interaction and scripting, environment variables, and security.

CS120 Topics in Software Development   (5.5 credits)
Students gain exposure to a wide variety of topics in software development. While building real applications in the lab portion of this course, students also learn fundamental concepts about such topics as software development lifecycles, system architectures, user interface design, and methods for the design, development, and testing of software.

CS130 Relational Databases I   (3.5 credits)
This course introduces students to database management systems with the emphasis on relational DBMSs. Students study the relational model of data, relational algebra, and basic SQL, as well as principles of data modeling and good database design. Students use modern relational database management systems (SQL Server and DB2) to apply their knowledge.
Prerequisite: CS140 Information Modeling I (may be taken concurrently)

CS140 Information Modeling I   (3.5 credits)
Students learn about modeling and querying an information system at the conceptual level and mapping between conceptual and logical (e.g. relational) levels. Object Role Modeling (ORM) is covered at an introductory level.

CS150 Introduction to Object Oriented Programming   (11 credits)
This course provides a thorough introduction to object oriented programming, implemented in C#. Topics include fundamentals of programming, classes and objects, inheritance, polymorphism, interfaces, delegates and events, and exception handling, with an emphasis on writing quality code. No prior programming experience is required, though course material is covered at a fairly rapid pace.

CS160 Development in the .NET Environment I   (3 credits)
This course introduces students to various concepts in the .NET environment and programming standards within that environment. Topics may include Windows desktop application development, multi-user application development using ASP.NET, ADO.NET, XML, and Web Services.
Prerequisite: CS130 Databases I (may be taken concurrently); CS150 Introduction to Object Oriented Programming

CS180 Introduction to Java Development   (3.5 credits)
Students are introduced to the Java core packages and APIs. The Eclipse integrated development environment (IDE) is introduced along with the tools, wizards, and facilities for developing, deploying, and managing Java applications. Course content will include the language's reserved words, syntax, core packages, graphical user interface (GUI) framework(s), logging, and runtime environment.
Prerequisite: CS130 Relational Databases I; CS150 Introduction to Object Oriented Programming

CS190 Projects I   (6.5 credits)
Students work in teams on software development projects. The projects provide experience with various phases of software development, give students opportunities to perform a variety of roles on software development teams, strengthen and integrate students' existing skills, and provide motivation for the acquisition of new skills. The project role and learning goals for each student are individualized inline with their knowledge base and growth focus.
Prerequisite: CS120 Topics in Software Development

CS192 Projects II   (6.5 credits)
Students work in teams on software development projects. The projects provide experience with various phases of software development, give students opportunities to perform a variety of roles on software development teams, strengthen and integrate students' existing skills, and provide motivation for the acquisition of new skills. The project role and learning goals for each student are individualized inline with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.
Prerequisite: CS190 Projects I

CS194 Projects III   (6.5 credits)
Students work in teams on software development projects. The projects provide experience with various phases of software development, give students opportunities to perform a variety of roles on software development teams, strengthen and integrate students' existing skills, and provide motivation for the acquisition of new skills. The project role and learning goals for each student are individualized inline with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.
Prerequisite: CS192 Projects II

CS205 IT Foundations   (3.5 credits)
These courses provide an overview of several IT services to orient the student to systems management. The topics covered include an introduction to the terms and concepts of IT services and introduction of services interconnections. The courses provide information on event, configuration, asset, performance, capacity, problem, change, security, network, storage, and business process management. The course features use cases to reinforce the lecture material. The pre-requisites for this course are an understanding of information technology (IT) devices and categories.
Prerequisite: CS120 Topics in Software Development

CS230 Relational Databases II   (3.5 credits)
This course extends the previous work on relational database management systems. Topics include further aspects of data definition and data manipulation in SQL, including advanced SQL queries, triggers, and stored procedures. Students apply their knowledge using modern relational DBMSs (SQL Server and DB2).
Prerequisite: CS130 Databases I

CS235 Introduction to Model Driven Development   (3.5 credits)
Students learn how to model business information needs and resources in the context of a business modeling framework. The course describes common business model elements including business rules, business objects, business processes, business narratives, business messages, business events and organizational units, and shows how these can form the basis for building software systems, using languages such as UML.

CS240 Information Modeling II   (3.5 credits)
This course builds on students' knowledge of information modeling. Object Role Modeling (ORM) and relational mapping are covered at an intermediate level. Class modeling in UML is included, as well as mapping from ORM to UML.
Prerequisite: CS140 Information Modeling I

CS250 Algorithms and Data Structures   (3.5 credits)
This course is designed to enhance a student's problem solving ability and enhance his/her skill set in developing solutions to common software problems using general algorithms and abstract data types. Students will utilize various structures such as stacks, queues, hash tables, linked lists, and trees to store data, understand and apply various searching and sorting algorithms to software, and make analyses of algorithm use and design.
Prerequisite: MA110 Sets, Probabilities and Number Systems (may be taken concurrently); CS150 Introduction to Object Oriented Programming

CS260 Development in the .NET Environment II   (3 credits)
This course builds on students' knowledge of the .NET environment and programming standards within that environment. Topics may include Windows desktop application development, multi-user application development using ASP.NET, ADO.NET, XML, and Web Services.
Prerequisite: CS160 Development in the .NET Environment I

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CS 265 Business Process Management   (3.5 credits)
Business Process Management provides an overview of the business and technological aspects of managing business processes focused to affect business impact and outcomes. The course will use an architectural method to teach how to determine business impact of IT elements and map IT elements to a customer's critical business processes. The pre-requisites for this course are an understanding of information technology (IT) devices and categories, and completion of Foundations in IT Services.
Prerequisite: CS205 IT Foundations

CS270L Industry Standard Product and Technology Lab I   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS271L Industry Standard Product and Technology Lab II   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS272L Industry Standard Product and Technology Lab III   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS273L Industry Standard Product and Technology Lab IV   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS274L Industry Standard Product and Technology Lab V   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS280 Introduction to Java EE Development Environment   (3.5 credits)
Students build upon the knowledge gained from CS180 and begin learning the Java Enterprise Edition (Java EE) platform. Java EE technologies are introduced with an emphasis on Java Web technologies such as Servlets, Java Server Pages (JSP), the Web container, and the role of enterprise application servers. Design patterns applicable to the presentation tier will be discussed. Students learn how to put Java database connectivity (JDBC) into practice. The Java API for XML Processing (JAXP) is introduced with an emphasis on both DOM and SAX parsing. Applicable open-source technologies may also be introduced such as STRUTS, the Spring Framework or Java Server Faces (JSF).
Prerequisite: CS180 Introduction to Java Development

CS282 Introduction to Flash Development   (3.5 credits)
Students learn fundamentals of drawing in Flash, basic animation, Actionscript 1.0, and 2.0, flash data communication, also how to work with video and bitmaps in flash. (Note that students enrolled in this course will be required to pay a class fee.)

CS285 Role-Based Software Development (3.5 credits)
This course introduces students to multiple viewpoints of developing system solutions in the software industry. Students will study a selection of common approaches for analyzing systems and designing solutions. All students will have a chance to test out different roles in the development process and gain an understanding of the importance of the different activities in creating successful software solutions. Through participation in various roles in design and development activities, students are encouraged to explore their future career interests.
This course is a prerequisite for the specialized role courses
Prerequisite: MA110 Sets, Probabilities and Number Systems (may be taken concurrently); CS150 Introductin to Object Oriented Programming

CS290 Projects IV   (6.5 credits)
Students work in teams on software development projects. The projects provide experience with various phases of software development, give students opportunities to perform a variety of roles on software development teams, strengthen and integrate students' existing skills, and provide motivation for the acquisition of new skills. The project role and learning goals for each student are individualized inline with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.
Prerequisite: CS194 Projects III

CS305 Networking   (3.5 credits)
This class will provide students with a basic understanding of network communications. An in-depth study of the Internet Protocol (IP) and network stacks will familiarize students with topics such as: the physical network layer; MAC and IP Addresses; sub-networks; multicast and broadcast; TCP and UDP; and application-level protocols. Students will implement a client/server application (such as POP3, HTTP, SMTP, IM) using discussed technologies. The class may include overviews or tutorials of common programming language implementations of network technologies (such as .NET's System.Net namespace or Java's java.net Package)
Prerequisite: CS260 Development in the .NET Environment II OR CS280 Development in the J2EE Environment II

CS310 Software Project Management   (4.5 credits)
This course explores project management techniques with a specific emphasis on software projects. Planning, estimating, scheduling, risk analysis, communication, roles, resource utilization, people management, configuration management, and related topics are covered. Students will learn to evaluate the resources an organization has at hand and to apply software development processes which will best fit the needs of the software project and the goals of the organization in question.
Prerequisite: CS190 Projects I AND CS285 Role-based Software Development

CS312 Multimedia, Game and Entertainment Systems   (3.5 credits)
Students learn fundamentals of computer graphics, content integration, AI concepts, and industry practices, standards, and tools in multimedia, game and entertainment systems. An analysis of the difference between a business application and a gaming application in all phases of the software life cycle will be discussed. (Note that students enrolled in this course will be required to pay a class fee.)
Prerequisite: CS260 Development in the .NET Environment II OR CS280 Introduction to Java EE Development Environment

CS315 Software Quality Standards and Assurance   (4.5 credits)
This course explores definition of software quality, quality standards such as ISO 9000 and the CMM, how software quality assurance fits into software development processes, and quality improvement. Students will explore the necessity of quality assurance at design time, and throughout the development and testing cycles of an application. The benefits of benchmarking goals and evaluations, global and unit test plans, and different quality assurance methodologies will be evaluated.
Prerequisite: CS190 Projects I AND CS285 Role-based Software Development

CS316 - Advanced Flash   (3.5 credits)
This course helps students develop a solid understanding of programatically controlling a Flash movie with ActionScript. Students will become familar with ActionScript by learning how to work with the Flash Drawing API, animating with ActionScript, posting form data, working with Flash Components, controlling ActionScript through the use of control structures and loops and loading information from XML. (Note that students enrolled in this course will be required to pay a class fee.)
Prerequisite: CS282 Introduction to Flash Development

CS320 Software Engineering Methodologies   (3.5 credits)
Software engineering methodologies that students may have experienced over the course of their project work are explored and compared in a more formal manner. Methodologies may include Rational Unified Process (RUP), Agile development, eXtreme Programming (XP), and others.
Prerequisite: CS192 Projects II (may be taken concurrently)

CS322 Software Design in UML   (3.5 credits)
This course presents the modeling language UML to students. Students will learn the basics of static and dynamic modeling in UML and how UML is applied to areas in software architecture, design and implementation.
Prerequisite: CS192 Projects II (may be taken concurrently)

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CS324 XML and XSLT   (3.5 credits)
Students learn to design, populate, formalize and transform XML documents using other XML technologies. The course emphasizes XML schema definitions, document queries, and transforms technologies. The basics of programmatically interfacing with XML documents are also covered.
Prerequisite: CS160 Development in the .NET Environment I or CS180 Introduction to Java Development

CS325 Human Computer Interface Design   (3.5 credits)
Principles and best practices are explored in areas such as navigation and flow, single page/screen layout, colors, GUI elements, multimedia presentation, response times, and usability analysis. Students will evaluate the effect that different technologies have on the design of a system's user interface and useful practices to neutralize deficiencies and take advantage of benefits.
Prerequisite: CS160 Development in the .NET Environment I OR CS180 Introduction to Java Development

CS326 Intelligent Systems (3.5 credits)
Students learn a range of techniques that can be used to add 'intelligent' behavior to information systems. The course outlines the broad historical and philosophical context of Artificial Intelligence, but the primary focus is on understanding how to utilize techniques of proven value in modern industrial and commercial applications. Topics include Knowledge Representation and its automation, algorithms for searching large problem spaces, and techniques for making systems more reactive to their environment.
Prerequisite: HU110 Logic I AND MA110 (may be taken concurrently)

CS328 Enterprise JavaBeans   (3.5 credits)
Students build upon the knowledge gained from Introduction to Java EE Development Environment and broaden their knowledge base by learning new APIs. Students are also introduced to the Enterprise JavaBeans (EJB) technology and other enterprise services provided by the J2EE platform. Patterns applicable to the business tier will be discussed.
Prerequisite: CS280 Introduction to Java EE Development Environment

CS331 Microsoft Database Case Study   (4 credits)
Students broaden their knowledge of relational databases through an extended case study of a major database management system: Microsoft's SQL Server. Students learn about installation and configuration of SQL Server, implementation of high availability solutions, supporting data consumers, maintaining databases, monitoring and troubleshooting performance, and creating and implementing database objects. This course also prepares students for the Microsoft "Technology Specialist in SQL Server" certification.
Prerequisite: CS230 Relational Databases II

CS332 IBM Database Case Study   (4 credits)
Students broaden their knowledge of relational databases through an extended case study of a major database management system: IBM's DB2 Universal Database. Students learn about the capabilities of the DB2 product family, security authorities and privileges, accessing servers and DB2 objects, working with DB2 data and objects, and isolation levels and concurrency. This course also prepares students for the IBM "Database Associate" certification.
Prerequisite: CS230 Relational Databases II

CS335 Business Modeling and System Design (3 credits)
Students learn to apply concepts in modeling business information and methods for mapping business requirements onto technology realizations. Detailed coverage focuses mainly on the implementation of Business Objects, Business Processes and Business Rules. Students will learn how to use modern tools to facilitate the production of enterprise-scale applications.
Prerequisite: CS235 Introduction to Model Driven Development

CS360 Development in the .NET Environment III   (3 credits)
This course introduces students to advanced topics in the .NET environment and to programming standards within that environment.   Topics may include Windows desktop application development, multi-user application development using ASP.NET, ADO.NET, XML, and Web Services.
Prerequisite: CS260 Development in the .NET Environment II

CS 365 Service Oriented Architecture Overview   (3.5 credits)
The SOA overview course begins with an introduction to what business process and information technology IT architecture are and what functions business process an IT architects perform. The course then describes the concepts of service orientation to a business process or information technology. Components of Service Oriented Architecture are described including and Enterprise Service Bus (ESB), and service connection methods such as Extensible Markup Language. Additionally, concepts such as Component Business Modeling (CBM), Business Process Execution Language (BPEL), and Web Services Description Language (WSDL the XML-based language which provides the model for describing Web Services) are also introduced. The reusability of services, the primary goal of SOA, emerges as a common theme through supporting sessions in SOA tools, the SOA Lifecycle, SOA Standards, and SOA Reference Architectures. Prerequisites for the SOA overview course are a thorough understanding of IT categories and elements including database, software, middleware, and network, familiarity with IT services, business processes and techniques, and some understanding of project management. The SOA overview course is multi-disciplinary, which bridges between business, business management, and technology.
Prerequisite: CS265 Business Process Management

CS370L Industry Standard Product and Technology Lab VI   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS371L Industry Standard Product and Technology Lab VII   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS372L Industry Standard Product and Technology Lab VIII   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS373L Industry Standard Product and Technology Lab IX   (2 credits)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS374L Industry Standard Product and Technology Lab X   (1 credit)
Students work in a self-paced manner towards being able to pass one or more of the industry certifications. Instructor guidance and support is provided on an individual basis. Course is graded Pass/Fail.
Prerequisite: CS150 Introduction to Object Oriented Programming

CS380 Java EE Integration Strategies for SOA   (3.5 credits)
Students will leverage the JDBC knowledge they gained in CS280 to understand the fundamental options for Java persistence mapping, e.g., the Java Persistence API (JPA), Enterprise JavaBeans (EJB), Java Data Objects (JDO/Toplink/Kodo), Hibernate, etc., with an emphasis on strategy rather than the mechanics of implementation. The bulk of the course centers around the Java Web Services Developer Pack (JWSDP) and how its components facilitate service-oriented architecture (SOA) integration strategies. Students explore the core aspects of SOAP marshalling, WSDL, and HTTP message exchange. Students also gain practical experience with web service security strategies while mastering the essentials of the Java Secured Socket Extension (JSSE) and the Java Cryptography Extension (JCE). Students development a leadership plan for corporate SOA adoption
Prerequisite: CS280 Introduction to Java EE Development Environment

CS 385 Development in 3rd Party Systems   (3.5 credits)
Students learn the complexities and surrounding issues related to development within 3rd party systems and API. In addition to development in said systems, issues surrounding effective documentation, well-written help files, and best practices will be explored. Students will be exposed to live and fully functional 3rd party systems from the industry and will learn from the challenges introduced in such a scenario. In addition, students may be exposed to a new and unfamiliar programming language. (Note that students enrolled in this course will be required to pay a class fee.)
Prerequisite: CS260 Development in the .NET Environment II OR CS280 Development in the J2EE Environment II

CS390 Projects V   (6.5 credits)
Students work in teams on software development projects. The projects provide experience with various phases of software development, give students opportunities to perform a variety of roles on software development teams, strengthen and integrate students' existing skills, and provide motivation for the acquisition of new skills. The project role and learning goals for each student are individualized inline with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.
Prerequisite: CS290 Projects IV

CS392 Projects VI   (6.5 credits)
Students work in teams on software development projects. The projects provide experience with various phases of software development, give students opportunities to perform a variety of roles on software development teams, strengthen and integrate students' existing skills, and provide motivation for the acquisition of new skills. The project role and learning goals for each student are individualized inline with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.
Prerequisite: CS390 Projects V

CS405 Rational Application Developer   (3 credits)
This course is intended for developers who are already familiar with Java EE Web application development, and wish to understand the capabilities of IBM Rational Application Developer for WebSphere Software V6 for developing such applications. The course explores the tools used to create, test, debug, and package JAVA EE Web applications, including the wizards used to create servlets, HTML pages, and JSP pages. Students learn how to use the Page Designer to edit HTML and JSP pages, component test JAVA EE Web components, and use the export wizards to package JAVA EE applications. The course also describes the support for the Struts and JSF application frameworks. Overall the course strives to prepare students to pass IBM certification exam #287 *Enterprise Application Development with IBM Rational Application Developer for WebSphere Software V6.0.*
Prerequisite: CS280 Introduction to the Java EE Development Environment

CS410 Software Architectures   (3.5 credits)
Students learn to design and evaluate a variety of software architectures that occur in small- and large-scale industry environments, to evaluate the needs of a software system at design time, and to apply the appropriate architectures which will best fit those needs. The course organizes discussion around three architectural perspectives of software integration and inter-process communication (IPC): stand-alone, client/server, and hosted. Topics may include service oriented architectures, component based architectures, producer-consumer architectures, and application layering, with a focus on reusable architecture frameworks.
Prerequisite: CS360 Development in the .NET Environment III or CS380 Java EE Integration Strategies for SOA (may be taken concurrently)

CS415 Patterns   (3.5 credits)
Students learn to recognize and implement patterns that occur frequently in software application development. These may include design patterns, architectural patterns, Gang of Four patterns, and other enterprise software patterns.
Prerequisite: CS250 Algorithms and Data Structures

CS420 Internationalization   (4.5 credits)
Students explore and design solutions for issues that occur in the internationalization of software products and services. Topics may include character sets and encoding, maintaining multiple versions of content, time zones, cultural issues, and common international industry standards.
Prerequisite: CS360 Development in the .NET Environment III or CS380 Java EE Integration Strategies for SOA (may be taken concurrently)

CS422 Financial and E-commerce Systems   (4.5 credits)
Students gain domain knowledge in the areas of financial software applications and electronic commerce, and apply this knowledge to evaluating and designing related systems. Students will analyze and evaluate the needs of specific e-commerce solutions and to apply the architectures, UI designs, and software technologies which fit the solution most effectively.
Prerequisite: CS360 Development in the .NET Environment III or CS380 Java EE Integration Strategies for SOA (may be taken concurrently)

CS424 Advanced Topics in Security   (3.5 credits)
Students learn about and evaluate different cryptography methods, algorithms and theories, vulnerabilities in networked applications, intrusion detection, and techniques for making software more resistant to hacking attempts.
Prerequisite: CS360 Development in the .NET Environment III or CS380 Java EE Integration Strategies for SOA (may be taken concurrently)AND CS 305 Networking

CS440 Advanced Information Modeling   (3 credits)
This course covers further concepts in modeling business information and business rules. A selection will be made from topics such as Entity Relationship modeling, conceptual schema equivalence and optimization, reverse engineering and data migration, normalization and controlled denormalization, meta-modeling, conceptual query languages, mapping ORM to XML Schema, and model management.
Prerequisite: CS240 Information Modeling II

CS 465 IT Architecture   (3.5 credits)
The IT Architecture overview course begins with an introduction to what information technology architecture is and what functions an IT architect performs in the context of a full product or solution life cycle. From that basis, the course explores several IT architecture components including architectural guiding principals, functional and non-functional requirements, and business and technology requirements. The course will introduce the concept of architectural building blocks, system context diagrams, and business to technology requirements translation. There is an underlying theme of architectural disciplines that are focused on types of IT activities, such as application development, infrastructure computing platforms, networks, and security. The course concludes with discussion of architectural frameworks and reference architectures. Prerequisites for the IT architecture overview course are a thorough understanding of IT categories and elements including database, software, middleware, and network, familiarity with business processes and techniques, and some understanding of project management. The IT Architecture course is multi-disciplinary across IT landscapes and as bridge between business, business management, and technology.
Prerequisite: CS365 Service Oriented Architecture Overview

CS490-6 Enterprise Projects I – 20 hours/week   (6 credits)
Students work as part of a software development team to provide solutions to real clients. Enterprise projects are designed to give students experience working on projects similar to ones they may encounter upon graduation. Placement on some projects may be competitive and may require mastery of a set of competencies.
Prerequisite: CS250 Algorithms and Data Structure; BU299 Career Preparation (BU299 may be taken concurrently) AND Enrollment requires instructor permission.

CS490-9 Enterprise Projects I – 30 hours/week   (9 credits)
Students work as part of a software development team to provide solutions to real clients. Enterprise projects are designed to give students experience working on projects similar to ones they may encounter upon graduation. Placement on some projects may be competitive and may require mastery of a set of competencies.
Prerequisite: CS250 Algorithms and Data Structure; BU299 Career Preparation (BU299 may be taken concurrently) AND Enrollment requires instructor permission.

CS491-6 Enterprise Projects II – 20 hours/week   (6 credits)
Students work as part of a software development team to provide solutions to real clients. Enterprise projects are designed to give students experience working on projects similar to ones they may encounter upon graduation. Placement on some projects may be competitive and may require mastery of a set of competencies.
Prerequisite: CS250 Algorithms and Data Structure; BU299 Career Preparation (BU299 may be taken concurrently) AND Enrollment requires instructor permission.

CS491-9 Enterprise Projects II – 30 hours/week   (9 credits)
Students work as part of a software development team to provide solutions to real clients. Enterprise projects are designed to give students experience working on projects similar to ones they may encounter upon graduation. Placement on some projects may be competitive and may require mastery of a set of competencies.
Prerequisite: CS250 Algorithms and Data Structure; BU299 Career Preparation (BU299 may be taken concurrently) AND Enrollment requires instructor permission.

CS491-12 Enterprise Projects II – 40 hours/week   (12 credits)
Students work as part of a software development team to provide solutions to real clients. Enterprise projects are designed to give students experience working on projects similar to ones they may encounter upon graduation. Placement on some projects may be competitive and may require mastery of a set of competencies.
Prerequisite: CS250 Algorithms and Data Structure; BU299 Career Preparation (BU299 may be taken concurrently) AND Enrollment requires instructor permission.

CS493-6 Enterprise Projects III – 20 hours/week   (6 credits)
Students work as part of a software development team to provide solutions to real clients. Enterprise projects are designed to give students experience working on projects similar to ones they may encounter upon graduation. Placement on some projects may be competitive and may require mastery of a set of competencies.
Prerequisite: CS250 Algorithms and Data Structure; BU299 Career Preparation (BU299 may be taken concurrently) AND Enrollment requires instructor permission.

CS493-9 Enterprise Projects III – 30 hours/week   (9 credits)
Students work as part of a software development team to provide solutions to real clients. Enterprise projects are designed to give students experience working on projects similar to ones they may encounter upon graduation. Placement on some projects may be competitive and may require mastery of a set of competencies.
Prerequisite: CS250 Algorithms and Data Structure; BU299 Career Preparation (BU299 may be taken concurrently) AND Enrollment requires instructor permission.

CS493-12 Enterprise Projects III – 40 hours/week   (12 credits)
Students work as part of a software development team to provide solutions to real clients. Enterprise projects are designed to give students experience working on projects similar to ones they may encounter upon graduation. Placement on some projects may be competitive and may require mastery of a set of competencies.
Prerequisite: CS250 Algorithms and Data Structure; BU299 Career Preparation (BU299 may be taken concurrently) AND Enrollment requires instructor permission.

CS499 Projects VII   (6.5 credits)
Students work in teams on software development projects. The projects provide experience with various phases of software development, give students opportunities to perform a variety of roles on software development teams, strengthen and integrate students' existing skills, and provide motivation for the acquisition of new skills. The project role and learning goals for each student are individualized inline with their knowledge base and growth focus.   Projects may include interaction and/or collaboration with external clients and other stakeholders.
Enrollment requires instructor permission

GENERAL EDUCATION

BUSINESS

BU101 Introduction to Personal Finance   (2 credits)
This course provides an overview of strategies for coping with daily living expenses while planning for long-term financial security.

BU 120 Business Communication   (3 credits)
This course prepares students to communicate effectively and professionally through both oral and written communication in various business settings.

BU121 Introduction to Accounting   (3 credits)
This course instructs students on the nature of accounting from the basic principles of accrual accounting through the preparation of basic financial statements for measurement of income and equity. Analysis and recording of financial transactions is also considered.

BU201 Introduction to Economics   (3 credits)
This course examines economic theory as it applies to contemporary market economy.   The focus is on understanding basic economic theory, economic terms, and commonly used economic indicators.

BU290 Business Fundamentals   (4.5 credits)
This course is a survey of the various aspects of business including human resources, finance, client relations, and production. The student will be able to identify the type of information that is critical to each aspect of the business. The student will also learn about various organizational structures and some aspects of business law.

BU299 Professional Communications   (1 credit)
Students will learn about and put into practice, in a lab setting, various topics related to effective professional communication. Major course topics are professional writing including memos, emails, resumes and cover letters, professional verbal communication including interviewing techniques and negotiation, and other relevant aspects of professional communication. Students will leave the class with professional portfolios and skills in communicating in the business world.

BU350 Entrepreneurship and Venture Capital   (2 credits)
This course examines the funding relationship from both the entrepreneur's and the VC perspective, thereby providing students with the knowledge and acumen to understand how technologies and business opportunities are brought to market and funded. From the perspective of the venture capitalist, the course examines the criteria and motivation of VCs, how individual deals are structured and managed. Finally, students are exposed to the culture and environment of early stage companies in order to gain a better understanding of the management and interpersonal dynamics inherent in young companies.
Prerequisite: BU290 Business Fundamentals or instructor approval

BU400 Professional Portfolio   (2 credits)
Students will develop an electronic, professional portfolio which they will be able to use for employment purposes. Students will learn how to select, organize, and analyze their work samples to showcase relevant competencies for the purpose of targeting a specific job market.
Prerequisite: CS Projects 190, 192, 194

FINE ARTS AND COMMUNICATION

FC101 Art Appreciation   (2 credits)
Students gain a basic understanding of the visual arts. Classic and electronic images are analyzed as well as structure and cultural frameworks.

FC110 Introduction to Digital Photography   (2 credits)
This course provides an introduction to digital photography including graphic design and photographic editing. (Note that students enrolled in this course will be required to pay a class fee.)

FC120 Spoken Communications   (3 credits)
Students strengthen their oral presentation skills by exploring and applying appropriate techniques for preparing and delivering speeches. Students learn speech, composition, and delivery methods needed to give effective presentations for technical and non-technical audiences alike. Students gain a basic understanding of effective and ethical public speaking, as well as develop poise and confidence in delivering public presentations to a variety of audiences.

FC125 Collaborative and Interpersonal Communications I   (2 credits)
Students actively develop and apply necessary collaborative skills for successful interpersonal interactions and group work. Students learn and use principles related to interpersonal communications, group dynamics, leadership, and the collaborative group life-cycle. Students are not just exposed to knowledge in these domains, but they develop practical skills that can be directly applied during their project work at Neumont University.
Prerequisite: CS 190 Projects I (may be taken concurrently)

FC126 Collaborative and Interpersonal Communications II   (2 credits)
Students advance their collaborative skills in order to effectively and efficiently work in collaborative groups. Building on the foundations established in the Collaborative and Interpersonal Communications I, students will learn and apply, in greater depth, effective interpersonal and group management skills. Students will focus on areas that relate to communications, decision-making, leadership, and conflict management.
Prerequisite: FC125 Collaborative and Interpersonal Communications I

FC150 Introduction to Modern Standard Arabic   (2 credits)
This course is intended for students who want to learn the essentials of speaking, listening, and reading modern literary Arabic. The course centers around Arabic script and phonology. The alphabet is explored with emphasis on recognizing how letters transform shape depending on position and context. Emphasis is also placed on morpholology, with special attention to the complete phoneme and morpheme collections. Students learn to converse in and read simple sentences and are introduced to those grammatical aspects of the language necessary for verb conjugation and dictionary use. At course completion, students are expected to have amassed a vocabulary of 100-200 words.

FC152 Japanese Language and Culture I   (3 credits)
Students will develop basic skills in 4 areas of the Japanese language; speaking, listening, reading, and writing. The course includes lecture and hands-on language lab components.

FC 153 Japanese Language and Culture II   (3 credits)
This course will build on language skills taught in Japanese Language and Culture I. Students will gain additional language skills in reading, writing, listening and speaking. Students will also explore additional relevant cultural issues.
Prerequisite: FC152 Japanese Language and Culture I

FC 156 Chinese Language and Culture I   (3 credits)
This course will teach students the fundamentals of Chinese language and culture. Students will gain basic language skills in reading, writing, listening and speaking that can be applied to social and business situations. Students will understand issues related to social and business culture in countries whose predominant language is Chinese.

FC 157 Chinese Language and Culture II   (3 credits)
Lower - 3 days / week - 2 lecture / 1 lab
This course will build on language skills taught in Chinese Language and Culture I. Students will gain additional language skills in reading, writing, listening and speaking. Students will also explore additional relevant cultural issues.
Prerequisite: FC156 Chinese Language and Culture I

FC 160 Arabic Language and Culture I   (3 credits)
This course will teach students the fundamentals of Arabic language and culture. Students will gain basic language skills in reading, writing, listening and speaking that can be applied to social and business situations. Students will understand issues related to social and business culture in countries whose predominant language is Arabic.

FC 161 Arabic Language and Culture II   (3 credits)
This course will build on language skills taught in Arabic Language and Culture I. Students will gain additional language skills in reading, writing, listening and speaking. Students will also explore additional relevant cultural issues.
Prerequisite: FC160 Arabic Language and Culture I

FC 170 Spanish Language and Culture I   (3 credits)
This course will teach students the fundamentals of Spanish language and culture. Students will gain basic language skills in reading, writing, listening and speaking that can be applied to social and business situations. Students will understand issues related to social and business culture in countries whose predominant language is Spanish.

FC 171 Spanish Language and Culture II   (3 credits)
This course will build on language skills taught in Spanish Language and Culture I. Students will gain additional language skills in reading, writing, listening and speaking. Students will also explore additional relevant cultural issues.
Prerequisite: FC170 Spanish Language and Culture I

FC200 Theater   (2 credits)
This course is designed to provide students a basic foundation for understanding theater and drama. They will learn theater history, acting, and analyzing productions.

FC201 Music Appreciation   (2 credits)
Students will be introduced to a range of music. They will develop skills in recognizing different components of music and styles.

FC210 Music Composition   (2 credits)
This course provides an overview of the songwriting and compositional creative process. A recital of performances of the student compositions will be offered at the end of the semester and will be open to the public.

FC220 Graphic Design   (2 credits)
Students actively develop and apply design and layout skills in order to complete a variety of design projects. Topics include basic principles of layout, typography, and digital imagery. The course will focus on how to create and combine these elements to successfully communicate ideas in a visually compelling manner. (Note that students enrolled in this course will be required to pay a class fee.)

FC301 Leadership Development   (3 credits)
This course permits students to examine various aspects of leadership and develop skills that will help them in future leadership positions. Included are discussions on human development and leadership theories, communication skills, small group dynamics, leadership strategies and styles, and the nature of power and influence.
Prerequisite: FC125 Collaborative and Interpersonal Communications I

HUMANITIES
HU110 Logic I   (3 credits)
This course provides an overview of logic emphasizing propositions, arguments, and definitions. Propositional logic including truth tables, truth trees, and natural deduction are discussed. Emphasis will be placed on analysis of arguments in natural language.

HU120 Modern Literature   (3 credits)
This course explores information architecture, formulaic patterns, plot and story in fantasy and science fiction literature.

HU121 English Composition   (3 credits)
Students develop necessary writing skills to prepare them for college-level writing and to establish a solid foundation for business and technical communications. Students focus on key rhetorical concepts including purpose, audience, and contexts for writing, as well as a range of genres used in college and workplace writing. Students explore effective writing processes, build awareness of writing conventions, and expand critical thinking, reading, and writing abilities.

HU210 Logic II   (3.5 credits)
This course extends the propositional logic studied in Logic I to full first-order predicate logic, with an emphasis on logical evaluation of arguments expressed in natural language. First-order logic topics include translation, truth trees, deduction trees, sorted logic, identity, and modal operators. The course includes an overview of other logics.
Prerequisite: HU110 Logic I

HU220 Introduction to Philosophy   (2 credits)
This course provides an overview of philosophy. Topics discussed include an introduction to metaphysics, epistemology, philosophy of science, and ethics (including ethics for software professionals).

HU221 Intermediate English Composition   (2 credits)
This course builds on the writing skills and knowledge gained in English Composition. Persuasive writing, rhetorical analysis and strategy, style and an understanding of formal argumentation, and critical thinking and analysis will be emphasized. Collaborative project management skills will be taught and used.
Prerequisite: HU121 English Composition

HU230 Linguistics   (3 credits)
Students learn basic components of language in this introductory linguistics course. Students study human language and explore the grammatical structure and social function of language.

HU 305 Ethics   (2 credits)
Students will examine the concept of ethics and the basic principles underlying ethical practice. Students will explore research and literature on ethics and relate this information to decision making in professional and civic arenas.

HU310 Critical Thinking   (2 credits)
Rational dialog and debating. Logical fallacies. Deduction vs Induction. Scientific method. Realistic analysis of arguments.

HU321 Technical Writing   (3 credits)
This course applies the skills and knowledge of writing gained in Intermediate English Composition to technical writing genres. Particular emphasis will be given to genres used in the Computer Science field such documentation, requirements documents, needs analysis, and feasibility studies. Critical thinking and problem solving will be a part of the criteria for good analysis and writing in course assignments.
Prerequisite: HU 121 English Composition

MATH
MA105 College Algebra (3 credits)
This course introduces students to basic algebraic concepts. Students learn practical applications of algebraic concepts by finding solutions to appropriate applied problems. Topics include mathematical expressions, linear equations, functions and graphs, polynomials, exponents, and problem solving. This course provides foundational algebraic skills to succeed in subsequent math classes

MA110 Sets, Probability, and Number Systems   (3 credits)
Students are introduced to a variety of mathematical topics including basic set theory, practical applications in probability, and representation of numbers in floating point, binary, and other numeric representations.

MA150 Trigonometry   (3 credits)
This introductory Trigonometry course explores functions and equations, polar coordinates, angles and triangles, similar triangles, inverse trigonometric functions, and laws of sines and cosines.

MA210 Linear Algebra   (3 credits)
This course gives students an opportunity to examine Linear Algebra and Geometry, Calculus and Planar/Solid Analytic Geometry.
Prerequisite: MA110 Sets, Probability, and Number Systems

MA220 Numerical Analysis   (3 credits)
This course introduces students to numerical analysis, direct and iterative methods of solving linear systems, optimization techniques, least squares methods, and numerical handling of ordinary and partial differential equations.
Prerequisite: MA210 Linear Algebra

MA250 Calculus   (3 credits)
This course examines several Calculus techniques including differentiation and integration.
Prerequisite: MA150 Trigonometry

MA 305 Problem Solving (3 credits)
Students are introduced to a variety of Problem solving techniques. Those techniques will be applied to various mathematical topics including algebra, calculus and number theory. A programming project will be presented for solution.
Prerequisite: MA 250 Calculus

MA 350 Statistics (3 credits)
Students will learn descriptive and inferential statistical methods with emphasis on sampling design, descriptive statistics, linear regression, and correlation. Other areas covered include probability; sampling distributions; hypothesis testing and confidence intervals.
Prerequisite: MA 110 Sets, Probability, and Number Systems

PHYSICAL EDUCATION

PE160 Personal Fitness   (2 credits)
Students learn physical fitness skills essential to their health and well-being as a computer professional. This class is held at an off-site recreation center and requires the student to demonstrate specific physical activity skills. Class size is limited.

PE170 Healthy Living   (2 credits)
This course provides an individualized approach to physical fitness and good nutrition, involving critical thinking and problem solving for healthy living. Students learn about beneficial living patterns and how to make decisions which maximize mental, spiritual, physical and social well-being. Students write and engage in a personalized health plan.

PE180 Golf   (2 credits)
This course introduces students to the game of golf, including rules, etiquette, and skills such as swing, grip, chipping, putting, and pitching. This course will take place off-campus. (Note that students enrolled in this course will be required to pay a class fee.)

PE 190 Strength Training (2 credits)
Students will learn effective strength training techniques. Students will work to increase strength of core and major muscle groups as a part of an overall health and fitness plan. Proper form and safety for strength training will be emphasized. (Note that students enrolled in this course will be required to pay a class fee.)

PHYSICAL SCIENCE

PS115 Introduction to Biology   (3 credits)
This course is designed to introduce students to the fundamentals of biology including cell structure, basic chemistry as applied to photosynthesis, cellular respiration, genetics, and natural selection. Students will also explore the basic similarities and differences between plant and animal systems. Laboratory exercises will give students a hands-on opportunity to critically examine and investigate the biological processes of cell structure, energy, heredity, reproduction, and other fundamental aspects of biology.

PS230 Introduction to Chemistry (3 credits)
This course introduces the fundamentals of chemistry utilizing a virtual laboratory environment. Students will develop analytical thinking skills as they perform virtual experiments and then examine and report their findings.
Topics covered will include: past and present views of atomic structure, naming compounds, balancing chemical equations, the ideal gas law, acid-base chemistry, and other basics of inorganic chemistry.
Prerequisite: MA105 College Algebra or equivalent

PS210 Environmental Studies   (2 credits)
This course introduces students to the field of environmental engineering. Students study environmental and ecological systems and perform quantitative and qualitative analyses of environmental problems. Environmental legislation is also discussed.

PS220 Introduction to Physics (3 credits)
This course is a gentle introduction of basic physics concepts and laboratory techniques. Students examine and test the fundamental laws of mechanics and waves, including light, heat, and sound.

PS301 Astronomy   (2 credits)
This course provides a basic introduction to the science of astronomy. Students will gain critical thinking skills as they assess the origins and evolution of our galaxy, understand stellar structure and life cycles, and gain an orientation to the night sky. Students will also examine recent advances such as the discovery of black holes.

SOCIAL SCIENCE

SS120 Mapping and Geospatial Information   (3 credits)
Students examine in a hands-on approach spatial analysis related to physical and cultural geography.

SS140 Introduction to Social History   (2 credits)
Students investigate the principles, concepts, and methods of analysis used in the study of the social history of persons and places, first through the history of the American family from Native Americans and European colonists to the present. Students examine historical perspectives on the relationships within families, the history of childhood, and the changing role of the family over time. Study will include all relevant ethnic and cultural groups.

SS215 Globalization and International Relations in the Internet Age (2 credits)
How do people, goods and services flow across national boundaries? Students examine the history, theory and policy of globalization and international relations during the internet age. Macro and micro (enterprise) viewpoints are explored and discussed.

SS230 World Cultures   (3 credits)
This course gives students an introductory view of the diversity of world cultures. Students will examine in depth selected world cultures.

SS240 Social Psychology   (3 credits)
Social behavior by the individual in the group. Action, interaction, dependency and interdependency. Sensations, anticipation and adaptation.

SS315 Culture, Knowledge and Society   (3 credits)
All societies have been "knowledge societies" and the culture of a society predicated the transmission of knowledge in accordance with procedures prescribed by tradition, often belonged to the realm of privilege. The Information Society we live has seen an explosive and unprecedented growth in the codification of theoretical knowledge. Based on several historical and current trends, this course will explain and exemplify the interdependence between culture, society and knowledge.

SS320 Group Dynamics   (3 credits)
This course provides a comprehensive examination of the forces that drive the formation and activities of groups. Students will have an opportunity to investigate in-depth the principles and concepts related to group structure and lifecycle, influence and power, constructive conflict, productivity, decision making, leadership, intergroup relations, and large group behavior. Students will learn best practices for participating and leading groups.
Prerequisite: FC125 Collaborative and Interpersonal Communications I

SS 350 Intellectual Property (2 credits)
This course provides an overview of the intellectual property laws of the United States. The purpose of the course is to give students an understanding of copyright, patent, trademark, and trade secret law, and how those laws fit into their vocational field.

GRADUATE PROGRAMS

ADMISSIONS

Neumont University Acceptance Committee evaluates students' potential to succeed in the program by evaluating academic potential, work experience, and student motivation.

To apply for admittance to Neumont University the potential student submits the following documents for review by the Acceptance Committee:
- Application
- Student Questionnaire
- Proof of Bachelor Degree
- Evidence of academic performance, such as GMAT scores or college transcripts

The Acceptance Committee reviews every application and evaluates the applicant in the following ways:
Academic potential is determined by looking at college transcripts and/or GMAT scores, if available.
Work experience is evaluated by looking at the application as well as any letters of recommendation.
Student motivation can be evaluated by looking at the student questionnaire along with transcripts and any letters of recommendation.

If there are not enough data points to determine any of these criteria then the committee may recommend that the applicant have an interview with one or more members of faculty.

INTERNATIONAL APPLICANTS
Neumont University is authorized under federal law to enroll non-immigrant students. An international application for admission is considered complete and ready for review when the following documents and records have been received:
5. A completed application signed, dated, and accompanied by a non-refundable international student application fee of $125. This fee must be drawn from a U.S. bank account, be an international money order, or be paid by credit card.
6. In order to satisfy the general admissions requirements listed above, foreign educational documents, including proof of high school graduation or its equivalent, (if the institution attended was not a U.S. institution) must be evaluated by a credential evaluation service that is a member of NACES at the applicant's own expense. For a complete list of NACES credential evaluation services visit www.naces.org.

    You will need to authorize the credentials evaluating company to send your documents directly to Neumont University after evaluation.

World Education Services, Inc Bowling Green Station P.O. Box 5087 New York, NY 10274-5087 Tel: (212) 966-6311 Fax: (212) 739-6100 info@wes.org	Josef Silny & Associates, Inc. International Educational Consultants 7101 S.W. 102 Ave Miami, FL 33173 Tel: (305) 273-1616 Fax: (305) 273-1338 www.jsilny.com
World Educational Services, Inc. 665 3rd Street Suite 400 San Francisco, CA 94107 Tel: (415) 677-9378 Fax: (415) 677-9333 www.wes.org/	Educational Credential Evaluators, Inc. P.O Box 514070 Milwaukee, Wisconsin 53202-3470 Tel: (414) 289-3400 www.ece.org eval@ece.org

7. Proven English language proficiency is required if English is not the applicant's first language. The preferable method of proving English proficiency is official test results of the TOEFL (Test of English as a Foreign Language). Applicants with TOEFL scores of 500+ (173+ computer-based score) will be considered for admission. In addition to or in place of the TOEFL exam, the University, at its discretion, may require students to complete a telephone interview in English.
8. Official test results of the SAT or ACT are recommended.

Once these documents are complete, the application will be submitted for review. Admitted applicants will then need to provide the following:
3. An official bank statement from the bank (not just a receipt) showing sufficient funds to cover expenses for a calendar year of attendance at Neumont University. Please contact your admissions representative for the current dollar amount. F-1 students are required to provide proof of additional funds for each F-2 dependent. If the applicant has a sponsor, the sponsor will need to complete the affidavit of support. Scholarship money can be applied toward the certifying amount.
4. All international students who are currently studying in the United States on an F-1 student visa and who are transferring from another U.S institution are required to submit a Transfer Eligibility Form prior to the issuing of the new I-20.

All international student scholarships are contingent on meeting I-9 eligibility requirements and lawful F-1 status. Admitted, eligible students will be issued an I-20 form from Neumont University.

TRANSFER STUDENTS
Neumont University may award transfer credit for courses that meet our evaluation criteria from an institution accredited by an agency recognized by the U.S. Department of Education. Courses taken at a foreign institution will be accepted for transfer on the basis of the report of a credential evaluation service.
For courses to be considered for transfer credit, a student must request a transfer credit review from the Office of Academic Programs and submit official transcripts and course descriptions from the time period when the courses were taken. Transfer credit requests should be made within the first quarter of attendance at Neumont University.

Credit will be accepted only for courses in which a grade of "C" or higher was earned. The number of credits awarded for a course will not exceed the number of credits offered for the related Neumont University course.

Students may not transfer more than 10 credits toward their graduate degree.

MASTER OF SCIENCE IN COMPUTER SCIENCE

MSCS students are expected to have successfully completed the Neumont University BSCS program or an approved equivalent. Additional criteria may apply to certain courses that provide advanced coverage of certain areas. Students who do not meet these criteria will be required to complete any prerequisite courses before taking the graduate courses in those areas.

PROGRAM OVERVIEW

Computing is a field characterized by rapid change. Software capabilities, development techniques, application areas, and other aspects are constantly evolving. Software developers with leading-edge skills are much in demand, but employers often find that traditional computing education fails to deliver adequately prepared developers. The BSCS program at Neumont University is aimed at delivering entry-level software developers who will be sought after by potential employers. The MSCS program is designed to complement the BSCS program by providing additional training in more advanced knowledge and skills, which will make Neumont MSCS graduates particularly valuable in the effective deployment of leading-edge technology.

PROGRAM OBJECTIVES

- Design System Architectures
- Employ established and emerging software standards
- Model and develop information systems
- Develop applications with a variety of deployment mechanisms
- Understand software development in the context of business
- Perform an effective review of the literature in a given field
- Write technical papers to a professional standard

PROGRAM DETAILS

To make the program available to the maximum number of students, it is offered on a full-time, half-time, and part-time basis. The program also offers some flexibility (under faculty advisement) in the ratio of Lecture/Lab courses to project work.

Student's must complete a minimum of 54 quarter credit hours, with an average cumulative GPA of 3.0 or higher in order to be eligible for graduation.

MSCS Program Plan

Required Lecture/Lab Courses	**9**
3 required Lecture/Lab Courses	
Required Seminar Courses	**6**
Minimum of 6 Seminar credits required	
Required Research Projects	**18**
Minimum of 18 Research Project credits required	
Elective Courses	**21**
21 credits of elective lecture/lab	
and/or additional seminar and Research Projects	
Total Required for MS in Computer Science	**54**

Required Lecture/Lab Courses		**9 Credits**
CS520	Enterprise Architecture	3
CS535	Business Modeling and System Design	3
CS560	Process and Data Patterns	3

Required Seminar Courses		**6 credits min.**
Select a minimum of 6 credit hours from this list:		
CS581	Advanced Computing Seminars - 1	1.5
CS582	Advanced Computing Seminars - 2	1.5
CS583	Advanced Computing Seminars - 3	1.5
CS584	Advanced Computing Seminars - 4	1.5
CS585	Advanced Computing Seminars - 5	1.5
CS586	Advanced Computing Seminars - 6	1.5
CS587	Advanced Computing Seminars - 7	1.5
CS588	Advanced Computing Seminars - 8	1.5

Required Research Project Courses		**18 credits min.**
Select a minimum of 38 credit hours from this list (min 6 credits Ent Projects):		
CS590-3	Research Project I - 9 hours/week	3
CS590-6	Research Project I - 18 hours/week	6
CS590-12	Research Project I - 36 hours/week	12
CS591-3	Research Project II - 9 hours/week	3
CS591-6	Research Project II - 18 hours/week	6
CS591-12	Research Project II - 36 hours/week	12
CS592-3	Research Project III - 9 hours/week	3
CS592-6	Research Project III - 18 hours/week	6
CS592-12	Research Project III - 36 hours/week	12
CS593-3	Research Project IV - 9 hours/week	3
CS593-6	Research Project IV - 18 hours/week	6
CS593-12	Research Project IV - 36 hours/week	12
CS594-3	Research Project V - 9 hours/week	3
CS594-6	Research Project V - 18 hours/week	6
CS595-3	Research Project VI - 9 hours/week	3
CS595-6	Research Project VI - 18 hours/week	6
CS596-3	Research Project VII - 9 hours/week	3
CS597-3	Research Project VIII - 9 hours/week	3

Select 21 additional credits from any combination of Seminar Courses, Research Project Courses and/or Elective Lecture/Lab

Elective Lecture Lab Courses		
CS530	Data Warehousing and Business Intelligence	3
CS540	Advanced Information Modeling	3
CS542	Advanced Modeling Topics I	3
CS544	Advanced Modeling Topics II	3
CS635	Advanced Model Driven Development	3

COURSE DESCRIPTIONS

CS520 Enterprise Architecture (3 Credits)
Enterprise Architecture is an increasingly important topic in the management of large-scale information systems and their associated resources. This course provides an introduction to the main issues involved in forming a strategic view of the enterprise in an informatics context. Students learn how the information resources of an organization can be defined by integrating different perspectives such as business, software application, data and technology. A number of case studies will be referenced during the course, including the Federal Enterprise Architecture (originated by the US Office of Management and Budget).

CS530 Data Warehousing and Business Intelligence (3 Credits)
This course explores a number of topics in business intelligence systems, especially data warehousing. Students will learn the principles underlying efficient utilization of modern business intelligence systems, and apply these principles using the latest technologies provided by industrial DBMSs such as Microsoft's SQL Server and IBM's DB2. Students will learn how to integrate data from various sources, use controlled denormalization to design efficient data warehouses and data marts, analyze and mine data, and design appropriate reports.
Prerequisite(s): CS230 (Relational Databases II) or equivalent

CS535 Business Modeling and System Design (3 Credits)
Students learn to apply concepts in modeling business information and methods for mapping business requirements onto technology realizations. Detailed coverage focuses mainly on the implementation of Business Objects, Business Processes and Business Rules. Students will learn how to use modern tools to facilitate the production of enterprise-scale applications.
Prerequisite(s): Students must have successfully completed at least one of the following
a)   Neumont University course CS235 (Introduction to Model Driven Development) or
b)   an acceptable equivalent course, or
c)   a minimum of two years experience in specifying, procuring, or developing business-facing software applications.

CS540 Advanced Information Modeling (3 Credits)
This course covers further concepts in modeling business information and business rules. A selection will be made from topics such as Entity Relationship modeling, conceptual schema equivalence and optimization, reverse engineering and data migration, normalization and controlled denormalization, meta-modeling, conceptual query languages, mapping ORM to XML Schema, and model management.
Prerequisite(s): CS240 Information Modeling II

CS542 Advanced Modeling Topics I (3 Credits)
This course explores a number of advanced topics in modeling business information and business rules. It assumes familiarity with conceptual information modeling approaches such as Object-Role Modeling (ORM) and Entity Relationship (ER) modeling, as well as class diagramming within the Unified Modeling Language (UML). A selection will be made from topics such as advanced subtyping, advanced derivation, nominalization/objectification, business rule modalities, rule formalization and verbalization, conceptual joins, collection types, higher-order types, open/closed world semantics, basic temporal semantics, and data model patterns.
Prerequisite(s): CS240 Information Modeling II

CS544 Advanced Modeling Topics II (3 Credits)
This course explores a number of advanced topics in modeling business information and business rules. It assumes familiarity with conceptual information modeling approaches such as Object-Role Modeling (ORM) and Entity Relationship (ER) modeling, as well as the class diagramming technique within the Unified Modeling Language (UML). A selection will be made from topics such as formal textual constraints, dynamic rules, advanced temporal modeling, thing/occurrence distinctions, advanced derivation options, mapping conceptual schemas to object oriented schemas, mapping conceptual schemas to Extensible Markup Language (XML) schemas, ontologies and the semantic web, mapping conceptual schemas to the Web Ontology Language (OWL), and pragmatic issues in modeling.
Prerequisite(s): CS240 Information Modeling II

CS560 Process and Data Patterns (3 Credits)
This course introduces students to the concept of repeatable business patterns and shows how they can be used in the specification and development of software solutions. The patterns cover common business object types such as Party, Product, Order, Shipment, etc. and common business process elements such as task branching and synchronization, extended transactions, event handling, etc. Students learn how such patterns can be represented using industry standard notations and how they can be realized using standard development tools.

CS581 Advanced Computing Seminars -1 (1.5 Credits)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics will be covered each quarter so that the course remains focused on issues that are of current importance. Instruction will utilize appropriate combinations of lecture, discussion, technical walk-through, critical review, and other means of exploring advanced computing concepts. The course has two main objectives:
i)   to provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
ii)   to develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.
Students will be required to play an active role in class proceedings.

CS582 Advanced Computing Seminars -2 (1.5 Credits)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics will be covered each quarter so that the course remains focused on issues that are of current importance. Instruction will utilize appropriate combinations of lecture, discussion, technical walk-through, critical review, and other means of exploring advanced computing concepts. The course has two main objectives:
i)   to provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
ii)   to develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.
Students will be required to play an active role in class proceedings.

CS583 Advanced Computing Seminars -3 (1.5 Credits)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics will be covered each quarter so that the course remains focused on issues that are of current importance. Instruction will utilize appropriate combinations of lecture, discussion, technical walk-through, critical review, and other means of exploring advanced computing concepts. The course has two main objectives:
i)   to provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
ii)   to develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.
Students will be required to play an active role in class proceedings.

CS584 Advanced Computing Seminars -4 (1.5 Credits)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics will be covered each quarter so that the course remains focused on issues that are of current importance. Instruction will utilize appropriate combinations of lecture, discussion, technical walk-through, critical review, and other means of exploring advanced computing concepts. The course has two main objectives:
i)   to provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
ii)   to develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.
Students will be required to play an active role in class proceedings.

CS585 Advanced Computing Seminars -5 (1.5 Credits)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics will be covered each quarter so that the course remains focused on issues that are of current importance. Instruction will utilize appropriate combinations of lecture, discussion, technical walk-through, critical review, and other means of exploring advanced computing concepts. The course has two main objectives:
i)   to provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
ii)   to develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.
Students will be required to play an active role in class proceedings.

CS586 Advanced Computing Seminars -6 (1.5 Credits)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics will be covered each quarter so that the course remains focused on issues that are of current importance. Instruction will utilize appropriate combinations of lecture, discussion, technical walk-through, critical review, and other means of exploring advanced computing concepts. The course has two main objectives:
i)   to provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
ii)   to develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.
Students will be required to play an active role in class proceedings.

CS587 Advanced Computing Seminars -7 (1.5 Credits)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics will be covered each quarter so that the course remains focused on issues that are of current importance. Instruction will utilize appropriate combinations of lecture, discussion, technical walk-through, critical review, and other means of exploring advanced computing concepts. The course has two main objectives:
i)   to provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
ii)   to develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.
Students will be required to play an active role in class proceedings.

CS588 Advanced Computing Seminars -8 (1.5 Credits)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics will be covered each quarter so that the course remains focused on issues that are of current importance. Instruction will utilize appropriate combinations of lecture, discussion, technical walk-through, critical review, and other means of exploring advanced computing concepts. The course has two main objectives:
i)   to provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
ii)   to develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.
Students will be required to play an active role in class proceedings.

CS590-3 Research Project I – 9 hours/week (3 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS590-6 Research Project I – 18 hours/week (6 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS590-9 Research Project I – 27 hours/week (9 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS590-12 Research Project I – 36 hours/week (12 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS591-3 Research Project II – 9 hours/week (3 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS591-6 Research Project II – 18 hours/week (6 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS591-9 Research Project II – 27 hours/week (9 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS591-12 Research Project II – 36 hours/week (12 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS592-3 Research Project III – 9 hours/week (3 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS592-6 Research Project III – 18 hours/week (6 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS592-9 Research Project III – 27 hours/week (9 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS592-12 Research Project III – 36 hours/week (12 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS593-3 Research Project IV – 9 hours/week (3 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS593-6 Research Project IV – 18 hours/week (6 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS593-9 Research Project IV – 27 hours/week (9 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS593-12 Research Project IV – 36 hours/week (12 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS594-3 Research Project V – 9 hours/week (3 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS594-6 Research Project V – 18 hours/week (6 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS595-3 Research Project VI – 9 hours/week (3 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS595-6 Research Project VI – 18 hours/week (6 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS596-3 Research Project VII – 9 hours/week (3 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS596-6 Research Project VII – 18 hours/week (6 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS597-3 Research Project VIII – 9 hours/week (3 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS597-6 Research Project VIII – 18 hours/week (6 Credits)
This research project provides an opportunity for students to engage in focused research, and optionally development, on the state-of-the-art in a selected area of computer science. The student will review the relevant literature to become familiar with leading edge research in the area, and then develop theoretical and/or practical proposals to extend the relevant body of knowledge. Typically, the student will author or co-author a detailed specification for these extensions, implement parts of the specification in code, and author or co-author a technical paper suitable for submission for publication as a Neumont University technical report or as an article in a respected workshop proceedings, conference proceedings, or journal. If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.
Prerequisite(s): None, but approval by the instructor is required

CS635 Advanced Model Driven Development (3 Credits)
Students learn further advanced concepts in model driven development, including the application of relevant industry standards, the characteristics of successful modeling projects, and issues in managing models, such as version control, verification, validation, and governance. Coverage of specialized tools will be included as appropriate.
Prerequisite(s): Students must have successfully completed at least one of the following
a) CS435 (Model Driven Development II), or
b) CS535 (Business Modeling and System Design) or
c) an acceptable equivalent course, or
d) a minimum of two years experience in developing business-facing software applications using a modern object-oriented programming language

MASTER OF BUSINESS ADMINISTRATION

MBA students are expected to have successfully completed foundation courses in accounting, economics, finance, and management, or to provide evidence of equivalent work experience in those areas. Students who do not meet these criteria will be required to complete any prerequisite courses before taking the graduate courses in those areas.

PROGRAM OVERVIEW

The overall objective of the MBA program is to educate qualified students in the principles and practice of management, combined with a thorough understanding of the theory and principles of business administration, combined with the opportunity to practice the principles through elective lab sessions combined with opportunities for internship/externships.

The MBA program combines residential direct instruction with supervised and content-linked instructional issues in an internship/externship setting. Qualified students will have the opportunity to choose between lab and internship/externship elective courses to help apply the academic skills they learn. The internship/externship portion can be residential or off-site.

A student must complete a minimum of 54 quarter credit hours, with an average cumulative GPA of 3.0 or higher in order to be eligible for graduation.

Course Requirements (30 Credit hours)
Required Lecture Courses

BU505	5.0	Introduction to Financial and Managerial Accounting
BU510	5.0	Management Information Systems
BU515	5.0	Entrepreneurial Management
BU520	5.0	Organizational Development and Human Resources
BU525	5.0	Marketing Management
BU530	5.0	Business Law and Ethics for Managers
	30.0	TOTAL Required Courses

Elective Courses
Students who do not submit a thesis must select a minimum of 24 credit hours from the following list. Students submitting a thesis must select a minimum of 15 credits from this list, plus 9 credits of Master's Thesis, BU699a and BU699b:

Lab and Internship/Externship (I/E) courses

Team Concentration

BU550	2.0	Fundamentals of Team Management (Lab)
BU651	2.0	Comprehensive Team Management (Lab)
BU652	3.0	Advanced Team Management I (I/E)
BU653	3.0	Advanced Team Management II (I/E)

Project Management Concentration

BU560	2.0	Fundamentals of Project Management (Lab)
BU661	2.0	Comprehensive Project Management (Lab)
BU662	3.0	Advanced Project Management I (I/E)
BU663	3.0	Advanced Project Management II (I/E)

Program Management Concentration

BU570	2.0	Fundamentals of Program Management (Lab)
BU671	2.0	Comprehensive Program Management (Lab)
BU672	3.0	Advanced Program Management (I/E)

Customer Management Concentration

BU580	2.0	Fundamentals of Customer Management (Lab)
BU681	2.0	Comprehensive Customer Management (Lab)
BU682	3.0	Advanced Customer Management (I/E)

Partner Management Concentration

BU590	2.0	Fundamentals of Partner Management (Lab)
BU691	2.0	Comprehensive Partner Management (Lab)
BU692	3.0	Advanced Partner Management (I/E)

Other Electives

BU610	2.5	Business Modeling and Systems Design
BU620	2.5	Advanced Topics in Business Modeling
BU535	5.0	Managerial Economics
BU540	5.0	Strategic Management
BU699a	4.5	Master's Thesis Part I (Thesis program only)
BU699b	4.5	Master's Thesis Part II (Thesis program only)

Thesis
Students who elect the thesis option will develop a Thesis or Work Project proposal under the supervision of a professor who is a member of the Faculty.

The Thesis or Work Project proposal must be approved by a Thesis Committee of three faculty. Once the Thesis is approved, the student must register for BU699a Master's Thesis Part I (4.5 credits) to begin Thesis development and BU699b Master's Thesis Part II (4.5 credits) the subsequent quarter. The Thesis or Work Project will be guided by an Advisor, who is also a member of the faculty.

The Thesis or Work Project must be concluded within 6 months of the completed coursework, and will be graded (pass/fail) by the Thesis Committee.

COURSE LISTING

COURSE DESCRIPTIONS

BU505 Introduction to Financial and Managerial Accounting (5 Credits)
This course covers introductory financial reporting and analysis based on real-world examples. Main focus and coverage are related to understanding and using financial statements and reports. All appropriate subjects will be related to the ROE model (return on equity). Financial and Managerial accounting are covered in relation to the economic environment, with frequent references to actual events and companies. Students will access an up-to-date database at the Wiley/Pratt website (http://wiley.com/college/pratt) with recent financials of well-known companies. Students will input data from the database into a provided spreadsheet that automatically computes the ratios contained in the ROE model. Investments in equity securities and bonds will be covered and interest rate swaps and hedging will be introduced and briefly explained.
Prerequisite: BU121 Introduction to Accounting or equivalent or relevant work experience

BU510 Management Information Systems (5 Credits)
This course provides an introduction to Management Information Systems (MIS) and is based on the premise that information systems knowledge is essential for creating successful, competitive firms, managing global corporations, creating business value, and providing useful products and services to customers. The course will cover return on investment (ROI) and return on equity (ROE) of the firms' investment in information systems. The central focus of the course is to help managers make optimal decisions about technology and to achieve maximum value from

- lifecycle issues related to information systems
- use of internal architecture, design and development groups
- use of outsourced development and maintenance of outsourced systems
- management of IT vendor relationships

This course illustrates and demonstrates the above issues and challenges by describing how contemporary real-world managers and firms make these decisions, and provides analytic concepts which will help managers make future IT decisions.

BU515 Entrepreneurial Management (5 Credits)
This course introduces the student to Entrepreneurship, and gives an overview of how Entrepreneurship has permeated every industry and most career choices. The structure, challenges and success factors of a Start-Up are covered in detail. The skills of the Entrepreneur are presented in detail; being opportunistic, building social networks, becoming a resource gatherer and critical thinker. Sources of funding for the Start-Up are outlined and the structure of The Business Plan is covered.
Prerequisite: BU290 Business Fundamentals or equivalent or relevant work experience

BU520 Organizational Development and Human Resources (5 Credits)
This course is based on the realization that more and more Employees, Professionals, Managers and Executives are finding that the pace of change exceeds their physical and mental capacity to adapt. The course is focused on the subject of change: How to Lead it, Adapt to it and Manage it. The course explains what Organizational Development (OD) is: An applied field of change that that uses behavioral science knowledge to increase the capacity for change, and to improve the functioning and performance of a human system. This human system is explained in the context of individuals, groups and organizations. The traditional profession of managing Human Resources and Employee Agreements, Contracts and Benefits is contrasted with how to implement change and teach the system to embrace change measured against Performance-related Values. Work design, employee involvement, organization structure and a strategic perspective on change management are covered. The "bigger picture" values and conflicts related to globalization, cultural integration, the concentration of wealth and environmental sustainability are related to the maintainability and change of corporate human systems. The importance of Training, Leadership Development and Coaching in context of OD is explained.

BU525 Marketing Management (5 Credits)
This course provides detailed understanding of all aspects of Modern Marketing. The overall focus of the course is more on marketing management related to the profession and practice of marketing. However, a large number of marketing principles and practices are explained. In particular, the shift from product focus to customer focus is extensively covered, and this shift is exemplified and explained with several real-life cases. Fundamental marketing concepts, such as segmentation, targeting, and positioning are explained, but the course is more focused on current and advanced marketing concepts; including brand equity, customer value analysis, database marketing, e-commerce, hybrid channels, supply chain management, customer relation management, and integrated marketing communications. New forms of communication, such as experiential, entertainment, and viral marketing are exemplified and juxtaposed against classical and fundamental marketing practices.

BU530 Business Law and Ethics for Managers (5 Credits)
This course gives comprehensive coverage of basic business laws and regulatory laws that form the legal environment for establishing and operating companies. Ethical and global issues are covered, and the influence of environments on businesses is explained. This includes political, international, social, legal, environmental, technological, demographic diversity and regulatory issues. The foundations for business ethics are explained, and are related to Real-Life issues. Workplace diversity and employment discrimination laws are discussed, and many specific legal issues involving e-commerce and the Internet are covered.

BU535 Managerial Economics (5 Credits)
This course is an introduction to microeconomics. Microeconomics is related to problems confronting (in particular) general managers, but problems relevant to line-management are also covered. The relationship between microeconomics and the functional fields of management are explained in detail. This pertains to financial and managerial accounting; finance, marketing, operations, human resource management, and strategic management. Microeconomic models are compared to models of behavior drawn from social psychology and sociology. Topics covered include: theory of the consumer, perfect competition, uncertainty, information, reciprocity, credibility, reputation and transaction costs.
Prerequisite: BU201 Introduction to Economics or equivalent or relevant work experience (may be taken concurrently)

BU540 Strategic Management (5 Credits)
This course covers strategic concepts, positioning and plans, based on quantitative data. Economies of scale and scope are covered in detail; integration and diversification are explained, and academic thinking about business strategy is covered in all its aspects. Most theory and principles are liberally illustrated with Real-Life examples. The examples bring the economic models to life and are drawn from throughout the world and cover business practice from the eighteenth century to the present day.
Prerequisite: BU290 Business Fundamentals or equivalent or relevant work experience

BU550 Fundamentals of Team Management (2 Credits)
The student will work as the Assistant Team Leader for a team of NU undergraduate students, managed by a graduate MBA student. The Assistant Team leader will have responsibilities for all financial and managerial accounting for the team.

BU560 Fundamentals of Project Management (2 Credits)
The student will work as the Assistant Project Manager for a team of NU undergraduate students, managed by a graduate MBA student. The Assistant Project Manager will have responsibility for project compliance with strategic and operational MIS (Management Information System) guidelines and procedures.

BU570 Fundamentals of Program Management (2 Credits)
The student will work as the Assistant Program Manager, reporting to the Program Manager (an MBA student in BU 671; Comprehensive Program Management). The Assistant Program Manager will have responsibility for how the Program relates to the Business Plan.

BU580 Fundamentals of Customer Management (2 Credits)
The student will work as the Assistant Customer Account Manager for one customer or several customers. The Assistant Customer Account Manager will work on understanding how the customer is organized and identify the decision makers and influencers.

BU590 Fundamentals of Partner Management   (2 Credits)
The student will work as the Assistant Partner Account Manager for one partner/vendor or several partners. The Assistant Partner Account Manager will work on understanding how the partner is organized and identify the decision makers and influencers.

BU610 Business Modeling and Systems Design   (2.5 Credits)
Students learn how to represent typical business features in a systematic way to create structured models of existing or planned business activities. Model elements are associated with the creation, transfer, or usage of information within the business, and students learn the practical issues involved in developing such models and validating them against business needs. Students learn how to apply business models in the development of information systems, using patterns of system architecture to drive realizations of the models using current technology.
Prerequisite: CS235 Introduction to Model Driven Development or equivalent or relevant work experience

BU620 Advanced Topics in Business Modeling   (2.5 Credits)
This course explores a number of advanced topics in modeling business information and business rules. It assumes familiarity with conceptual information modeling approaches such as Object-Role Modeling (ORM) and Entity Relationship (ER) modeling, as well as the class diagramming technique within the Unified Modeling Language (UML). A selection will be made from topics such as temporal aspects of information modeling, business rule modalities (alethic and deontic), open/closed world semantics, conceptual joins, collection types, thing/occurrence distinctions, formalization, rule verbalization, nominalization/objectification, mapping conceptual schemas to object oriented schemas, and mapping conceptual schemas to Extensible Markup Language (XML) schemas.
Prerequisite: CS240 Information Modeling II or equivalent

BU651 Comprehensive Team Management   (2 Credits)
The student will work as the Team Leader for a team of NU undergraduate students.   Learning goals include understanding deliverables, collaboration, cooperation, and individual contribution from the manager's perspective.
Prerequisite: BU550 Fundamentals of Team Management or relevant work experience

BU652 Advanced Team Management I   (3 Credits)
This student will manage a team of NU undergraduate students and/or employees/interns at the Internship Company. Learning goals will be related to Organizational Development in the context of managing a team.
Prerequisite: BU651 Comprehensive Team Management or relevant work experience

BU653 Advanced Team Management II   (3 Credits)
The student will manage a team of NU undergraduate students and/or employees/interns at the Internship Company. Focus will be on how the achievements of a development team relate to External Profiling and Marketing.
Prerequisite: BU652 Advanced Team Management I

BU661 Comprehensive Project Management   (2 Credits)
The student will work as the Project Manager of an internal NU project. Learning goals include understanding project, process, and organizational development, and the differences between them, from the manager's perspective.
Prerequisite: BU560 Fundamentals of Project Management or relevant work experience

BU662 Advanced Project Management I   (3 Credits)
This student will manage a project for a Company. The student may be based at NU or at an Internship Company. Learning goals will be related to Business Law and Ethics in the context of Project Management.
Prerequisite: BU661 Comprehensive Project Management or relevant work experience

BU663 Advanced Project Management II   (3 Credits)
This student will manage a project for a Company. The student may be based at NU or at an Internship Company.   The student will focus on improving management processes practiced in BU 662 Advanced Project Management I.
Prerequisite: BU662 Advanced Project Management I

BU671 Comprehensive Program Management   (2 Credits)
The student will work as Program Manager of an internal NU program or an external Partner program. By the end of the course, students should understand the distinction between project and program management and be able to evaluate the quality of a program.
Prerequisite: BU570 Fundamentals of Program Management or relevant work experience

BU672 Advanced Program Management   (3 Credits)
The student will manage a program at NU or at an Internship Company. This course hones the student's ability to evaluate and articulate the quality of programs and company practices.
Prerequisite: BU671 Comprehensive Program Management or relevant work experience

BU681 Comprehensive Customer Management   (2 Credits)
The student will work as a Customer Account Manager for one or several customers. Learning goals include viewing relationships from the perspective of the customer, and application of strategies for conflict resolution.
Prerequisite: BU580 Fundamentals of Customer Management or relevant work experience

BU682 Advanced Customer Management   (3 Credits)
This student will act as the Account Manager for a one customer or a group of customers at NU or at the Internship Company. The student will focus on conflict resolution. By the end of the course, the student will be able to evaluate and articulate the company's current practices in Customer Management.
Prerequisite: BU681 Comprehensive Customer Management or relevant work experience

BU691 Comprehensive Partner Management   (2 Credits)
The student will work as a Partner Account Manager for one partner/vendor or several partners. The student will learn to see vendor relationships from the viewpoint of the vendor, with a focus on conflict resolution. By the end of the course, the student will be able to understand and apply strategies for conflict resolution.
Prerequisite: BU590 Fundamentals of Partner Management or relevant work experience

BU692 Advanced Partner Management   (3 Credits)
This student will act as the Account Manager for a one Partner at NU or at an Internship Company. Learning goals include understanding elements of Partner Management and being able to effectively negotiate with a partner. By the end of the course, the student will be able to understand and evaluate current practices in Partner Management.
Prerequisite: BU691 Comprehensive Partner Management or relevant work experience

BU699a Master's Thesis Part I   (4.5 Credits)
Registration in BU 699a initiates structured progress toward completion of an MBA Thesis or Work Project. Students enrolled in this course must enroll in BU 699b the subsequent quarter. These two courses are required for students who elect the thesis option of the MBA program.

BU699b Master's Thesis Part II   (4.5 Credits)
Student completes an MBA Thesis or Work Project. Successful completion of this course is required for students who elect the thesis option of the MBA program.
Prerequisite: BU699a Master's Thesis Part I

STUDENT SERVICES

HOUSING

A far cry from traditional dorm life, Neumont housing offers affordable furnished apartment style living close to campus with shared and private rooms available. Student activities find a nucleus here.

Salt Lake City Housing – The Salt Lake City Campus offers two housing options, The Falls which is located appx. 1 mile from campus within walking distance of many shops and restaurants convenient to student-run shuttles and bus and light rail transit lines. Sterling Village, which is offered to upperclassmen, is located with an easy walk of the Neumont campus, overlooking the scenic Jordan River Parkway. All housing is fully furnished including a washer and dryer, featuring two bedroom apartments that are shared by four students.

Northern Virginia Housing – The Virginia Campus offers one housing option that is within walking distance of the Dulles Town Center shopping and eating district. This housing complex features two bedroom units, and two bedroom units with an additional loft style bedroom which can be leased as an individual room. Housing is serviced by public busses and a student-run Neumont shuttle that transfers students to and from the campus and student activities.

STUDENT ADVISING

Advising encompasses several important areas of student life. The Office of Academic Programs serves as advisors and assists students in course selection and registration, dropping and adding courses, and meeting graduation requirements. Academic advising is coordinated by the Office of Academic Programs and includes Satisfactory Academic Progress, attendance, and personal matters.

LIBRARY

The goal of the Neumont University Library is twofold:
1.   Serve the information needs of students and faculty members of the Neumont University community.
2.   Offer users the convenience and flexibility of a ubiquitous digital library infrastructure, which delivers library materials to the desktop.

The library achieves these goals by using on-line library services. Traditional resources include both journal publications and general periodicals. The on-line library hosts subscription-based databases, online books, journals, technical reports, reference tools, and other information products. Users have 24 hour availability from campus or remote locations. The University's library is overseen by the Librarian and the Office of Academic Programs which works with faculty to ensure that the library collection remains current.

CAREER SERVICES

Upon completion of the program, Neumont University will assist graduates in locating career opportunities in computer science and related fields. We have established strong relationships with potential future employers. We will continue to foster these relationships as they help us to know what the industry considers to be the necessary technology and value skills for the success of our graduates. The Office of Career Services will assist graduates in identifying potential career paths, in the graduates' development of a positive self-image, and in assessing competencies, strengths, and career expectations.

Although the University does not, in any way, guarantee employment, it is the goal of Neumont University to help our graduates realize a high degree of personal and professional development and successful employment.

UNIVERSITY POLICIES

FAMILIARITY WITH UNIVERSITY REGULATIONS
The university catalog which is made available to all students, sets forth the policies and regulations under which the institution operates. It is the responsibility of the student to become familiar with these policies and regulations and to comply accordingly.

PROGRAMS AND CHARGES
The University reserves the right to modify its tuition and fees; to add to or withdraw members from its faculty and staff; to revise its academic programs and to withdraw subjects or courses if registration falls below the required number. A specific course requirement may be changed or waived by the Academic Dean upon written request and for reasonable cause. Course substitutions may be made only by the Curriculum Committee. The total hours specified in each area of the degree are the minimum requirements for completion.

CAMPUS SECURITY
In compliance with the crime awareness provisions of the Campus Security Act of 1990, crime statistics and campus security policies are available through the Office of Student Services.

STUDENT CONDUCT
Each student is held responsible for conforming to local, state, and federal laws and for behaving in a manner consistent with the best interest of the University and of the student body. Students should not interfere with other students' rights, safety, health, or right to learn. Violations to conduct standards include, but are not limited to:
- Theft
- Disruptive behavior
- Possession or use of firearms, explosives, or other dangerous substances
- Vandalism or threats of actual damage to property or physical harm to others
- Possession, sale, transfer, or use of illegal drugs
- Appearance of being under the influence of alcohol or illegal drugs, possession or consumption of alcohol on campus
- Harassing or abusive acts which invade an individual's right to privacy including sexual harassment or abuse against members of a particular race, ethnic, religious, or cultural group
- Any activity that may be perceived as hazing, which is defined as a situation or activity which intentionally or recklessly endangers the physical or mental health or safety of an individual for the purpose of admission or initiation into any affiliation or organization associated with the University
- Reckless or intentional use of invasive software such as viruses and worms destructive to hardware, software, or data files
- Academic dishonesty
- Violence or the threat of violence
- Violation of any housing or University policy
- Violation of the Acceptable Use Policy for school-issued equipment

The University reserves the right to suspend or dismiss any student at any time for misconduct or when such action is deemed to be in the best interest of the student or the student body.

ACADEMIC HONESTY
The University adheres to the tenet that professional attitude begins in the classroom. For that reason, students and faculty of the University will not tolerate or commit any form of academic dishonesty.

Acts of academic dishonesty are defined as falsification of materials submitted for a grade, representation of another's work as one's own, or violation of test conditions as designated by the instructor. Academic dishonesty can also be collaboration beyond the scope that is allowed by an instructor, file-sharing, submitting false documentation for excused absence requests, or other deceit used to gain academic credit.

When academic dishonesty is suspected, the Academic Dean will gather all evidence relating to the situation and hold a student conduct hearing with the student(s). Based on the preponderance of evidence, if the Academic Dean determines that the student has violated the academic honesty policy, the student will be held judicially liable.

Neumont University typically utilizes a three strikes policy outlined below. These sanctions are to serve as minimums The Academic Dean may choose to impose additional sanction. Neumont University reserves the right to make any judicial action deemed necessary up to and including dismissal from Neumont University at any time.

First violation: Score of 0 on assessment, judicial probation until graduation, 10 hours of community service, and Dean notified.

Second violation: Student removed from all current classes for the remainder of the quarter with F grades for all classes, student must be interviewed and cleared by the Academic Dean to be able to return the following quarter (Students have the right to attend their regular courses while an appeal is pending)

Third violation: Permanent dismissal from Neumont University

If the student wishes to appeal the action of the Academic Dean , he or she has the opportunity to appeal within 10 days to the Administrative Committee, made up of the Campus Executive Director, the Director of Student Services and the Faculty Development Coordinator or a designee. The appeal decision is final and cannot be further appealed.

ALCOHOL AND SUBSTANCE ABUSE STATEMENT
The University does not permit or condone the use or possession of alcohol, marijuana, or other illegal drug, narcotic, or controlled substance by students or employees while on school premises. Alcohol is only permitted in designated areas in the student housing in compliance with state and local laws.

In accordance with the Drug-Free Schools and Communities Act Amendments of 1989 (Public Law 101-226), the following policy is in effect:
- Students found in violation of the unlawful possession, use, or distribution of drugs or alcohol on the University campus, or as any part of the institution's activities, will be subject to disciplinary sanctions from the University.
- Students are subject to all local, state, and federal laws.

- Students should also be aware that the use of illicit drugs and the abuse of alcohol are dangerous to personal health and present an additional risk for pregnant women and their unborn children.
- Drug and alcohol counseling referrals are available at the University to students through the Office of Student Services. Individuals needing treatment or rehabilitation will be referred to an appropriate community resource. Neumont University does not assume the responsibility for the cost incurred for drug treatment or rehabilitation.

SEXUAL HARASSMENT POLICY

The University strives to provide and maintain an environment free of all forms of harassment, including sexual harassment.

The following guidelines are issued which legally define sexual harassment as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when:
- submission to such conduct is made either explicitly or implicitly as a term or condition of an individual's employment,
- submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting such an individual, or
- such conduct has the purpose or effect of unreasonably interfering with an individual's academic or work performance or creating an intimidating, hostile, or offensive working environment.

The University will not tolerate sexual harassment. Behavior toward any employee or student by a member of the staff, faculty, or student body which constitutes unwelcome sexual advances, including comments of a sexual nature, or inappropriate conduct, including the display of derogatory drawings, cartoons, or posters, will be dealt with quickly and vigorously and will result in disciplinary action up to and including termination or dismissal.

The sexual harassment of any employee or student of Neumont University is forbidden. The Office of Student Services is responsible for receiving and investigating complaints of sexual harassment a involving student(s). Any employee, student, or administrator who is aware of an alleged incident of sexual harassment involving a student(s) should take immediate action by bringing the matter to the attention of the Office of Student Services.

STUDENT COMPLAINTS

Complaints should be directed to the Office of Students Services. If Student Services is not able to address the student's complaint, the student may also seek the assistance of the Director of Operations, call the toll-free Student Hotline at (866) 801-1300 or contact the Executive Director.

Students will NOT be subject to unfair actions as a result of initiating a complaint.

JUDICIAL PROCEDURES

Students who violate school policies, student code of conduct, housing rules and regulations, or the Acceptable Use Policy will be subject to judicial sanctions which may include suspension or dismissal from the University. Judicial procedures will be handled through Student Services. Students have the right to appeal any judicial decisions within 10 days of judicial action. Details of the appeal process can be found in the Student Handbook.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

The confidentiality and security of student educational records are of primary importance to Neumont University. The Family Educational Rights and Privacy Act of 1974, as amended, prohibits access to or the release of educational records or other personal, identifiable information without the written consent of the student.

Exceptions to this include:
- authorized government officials
- employees having authorized access
- accrediting agencies engaged in accrediting functions
- parents of a student whose status as a dependent has been established in accordance with the Internal Revenue Code of 1954, Section 15
- an ex parte judicial order investigating a crime of terrorism
- a subpoena from a federal grand jury
- a subpoena issued for law enforcement purposes
- authorized officials in connection with an emergency, if knowledge of the information is necessary to protect the health or safety of a student or other persons
- proper written consent that is signed, dated, and includes the birth date of the student, and specifies the educational records to be disclosed, the purpose of the disclosure, and the party to whom the disclosure may be made
- Bureau of Homeland Security for foreign students for whom the school has issued an I-20

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their educational records. They are:
- The right to inspect and review the student's educational records within 45 days of the day the University receives a request for access. Students should submit written requests to the Registrar's office that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected.
- The right to request an amendment to the student's educational records if the student believes portions of the record is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want amended, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
- The right to consent to disclosures of personally identifiable information contained in the student's educational records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is disclosure to institution officials with legitimate educational interests. An institution official is a person employed by the institution in an administrative, supervisory, academic or research, or support staff position; a person or company with whom the institution has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another institution official in performing his or her tasks. An institution official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility. Upon request, the institution discloses educational records without consent to officials of another institution in which a student seeks or intends to enroll.
- Directory information is information that may be unconditionally released to third parties by the school without the consent of the student unless the student specifically requests that the information not be released. The school requires students to present such requests in writing within 10 days of the date of enrollment. Directory information includes the student's name, address(es), telephone number(s), date and place of birth, dates of attendance, and degree awarded.
- The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is The Family Policy Compliance Office, Department of Education, 600 Independence Avenue, SW, Washington, DC 20202-4605.

SCHOLARSHIPS

Neumont University offers several scholarship opportunities to qualified applicants. Applications for these scholarships should be submitted with other admissions application materials.

Applicants for all Neumont scholarships will be reviewed based on academic records from high school and college (if applicable), standardized test scores, financial need, or other relevant factors. Based on the review of this criteria, the Scholarship Committee may award any of the scholarships described below. Based on the type of award, a minimum cumulative GPA must be maintained for continued eligibility for the awarded scholarship.

Scholarships are only available to full-time students making normal progress. Normal progress is defined as eight continuous quarters from first time enrollment to graduation. Any scholarship student who drops below full-time is no longer eligible for the scholarship. Exceptions may be considered for students in their final quarter or students withdrawing for full-time community service (military, missions, etc). In addition, Master's student may defer a scholarship one time for one quarter. Written requests for Scholarship Deferment should be submitted to the Registrar.

The total dollars available to be applied to a student's account my not exceed, on a cumulative basis, more than 100% of charges for tuition

UNDERGRADUATE SCHOLARSHIPS

Neumont University has set the following application deadlines:

For current high school graduates entering the University during July or October of their graduating year, scholarship applications will be reviewed the previous December, March or May. Once notification of a scholarship award has been communicated, the student must inform the University of their decision to attend by signing an enrollment agreement to hold the award for the term for which they have applied, at least sixty days prior to the term start date. Any changes in the start date or term could result in the loss of the scholarship award.

Scholarship applicants who are not current High School graduates must have applications submitted within 14 days of submitting their application for admission to the University. These applications will be regularly reviewed by the Scholarship Committee. Once notification of award has been sent, the student will have two weeks to accept the award and notify the University of their intent to start class during the term for which they have applied by signing an enrollment agreement. Any changes in the start date or term could result in the loss of the scholarship award.

Additional information regarding all scholarships, including selection criteria considered by the Scholarship Committee, can be obtained by contacting the Admissions Department.

NOTE: Any student put on judicial probation will lose eligibility for scholarship awards for the remainder of their program, except for Founder's Scholarships for Continuing Students providing the student is not on probation at the time of the award.

Technology Trendsetter Scholarship
The Technology Trendsetter Scholarships may be awarded at a level to cover 100% (Grady Booch Scholarship), 50% or 25% of tuition costs on a quarterly basis, or $500 per quarter. A minimum cumulative GPA of 3.5 must be maintained for continued eligibility for the awarded scholarship. Students awarded the Technology Trendsetter Scholarship may not be eligible for other institutional scholarships awarded by the University.

David P. Gardner Scholarship
The David P. Gardner scholarship will be awarded on a quarterly basis at $1,000 per quarter. A minimum cumulative GPA of 3.5 must be maintained for continued eligibility for the awarded scholarship.

Community Service Award
The Community Service Scholarship will be awarded on a quarterly basis at $250 per quarter. The scholarship is for individuals who have served at least 18 months in an organized full-time community service or military capacity based upon the recommendation of an official from the sponsoring organization.

High School Technology Scholarship
The High School Technology Scholarship is for high school seniors graduating in the current year with an interest and experience in Computer Science and high academic achievement. One student per high school may be selected for this award to be applied toward tuition at a rate of $500 per quarter. This scholarship is based on the recommendation of a faculty member and the high school guidance counselor from the High School from which the student graduated. A minimum cumulative GPA of 3.5 must be maintained for continued eligibility for the awarded scholarship.

Zion's Bank Scholarship
Zion's Bank Corporation offers an annual $5,000 scholarship to a Utah high school senior with a minimum 3.0 GPA to attend Neumont University.

Quarterly Scholarships for Continuing Students

The Founders' Scholarship for Top Performers
Those students who have achieved an academic standing within the top 10% of the current student cohort population or have achieved a 4.0 GPA during the preceding quarter will be awarded the Founders' Scholarship.

The Founders' Scholarship Award in the amount of $500 will be applied toward tuition and is valid only for the quarter following the quarter in which the award was achieved. The student must be in attendance during the following quarter to receive this scholarship.

The total dollars available to be applied to a student's account my not exceed, on a cumulative basis, more than 100% of charges for tuition.

GRADUATE SCHOLARSHIPS

Neumont University offers scholarships to students who are accepted to the master's programs.

Students who have applied and are granted acceptance into the master's programs must indicate the scholarship for which they are requesting consideration and include a 200-word short essay. The essay should address the student's career goals and a brief description of why the student is seeking a master's degree.

Utah Information Technology Association (UITA) Scholarship
UITA scholarships will be granted at 25% or 50% of tuition levels based on the students' academic merit and level of work experience. To be eligible for this scholarship the student must be accepted into the master's program and must be a current member of UITA or an employee of a company that is a UITA member. A minimum cumulative GPA of 3.6 must be maintained for continued eligibility for the awarded scholarship.

Enterprise Partner Scholarship
Enterprise partner scholarships will be granted at 25% or 50% of tuition based on the students' academic merit and level of work experience. To be eligible for this scholarship the student must be an employee of an active Neumont University Enterprise Partner, defined as a corporation engaged in a student project or a corporation engaged in the University's recruiting program. A minimum cumulative GPA of 3.6 must be maintained for continued eligibility for the awarded scholarship.

Continuing Education Scholarship
Continuing Education scholarships will be granted at 25% or 50% of tuition levels to Neumont University graduates based on the student's academic merit and level of project experience. To be eligible for this scholarship the student must have a Neumont University undergraduate degree with a minimum cumulative GPA of 3.6. A minimum cumulative GPA of 3.6 must be maintained for continued eligibility for the awarded scholarship.

Masters of Science in Computer Science Fellowship
In conjunction with the Master of Science in Computer Science degree program, Neumont University offers a fellowship program for up to two outstanding students in full-time attendance. These students will assist in providing service to the University's undergraduate program in the form of instruction assistance, curriculum planning, research, student mentoring, assessment, etc. Students will work up to 15 hours per week at the discretion of the program professors. These services will continue throughout the duration of the student's graduate program. In return, Neumont University will provide a tuition waiver for the Master of Science in Computer Science program and provide a monthly stipend.

Fellowship students must remain in good standing in the program and maintain at least a 3.6 grade point average to remain fellows. Students who lose fellowship status will need to reapply for the position with no guarantee of returning to fellowship status.

The requirements for the program are as follows:
- In order to apply for this fellowship, students must have a minimum cumulative GPA of 3.8 in the Neumont University bachelor program or equivalent degree program.
- Candidates will be selected based on the following:
    1. Student's cumulative GPA.
    2. Assessment interview by the professors of the MSCS program.
    3. Acceptance by the Neumont University Dean of Academics.

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To remain in the fellowship program, the student must:
- Maintain a minimum GPA of 3.6 in the MSCS program.
- Receive a satisfactory rating on a quarterly basis from the MSCS professors.
- Annual review and approval by the Dean of Academics
- May not be employed or provide consulting outside of Neumont University for the duration of the fellowship.

FINANCIAL INFORMATION

TUITION AND FEES

Tuition is charged per quarter based on the full-time rate in accordance with the chart below. Annual tuition increases will be announced January of each year to take effect in the July quarter of that year.

Expected length of attendance for undergraduates is eight (8) quarters, assuming a normal rate of progress.

The calendar year contains four quarters, however, the academic year is three quarters.

UNDERGRADUATE TUITION AND FEE TABLE

Application fee (non-refundable)	$35 ($125 Int'l)	Required of all applicants
Enrollment fee *	$100	Required of all first time students.
Tuition	$9,000	Per quarter.
Per credit charge (applies to part-time students only)	$495/QCH	Per quarter credit hour, assessed in place of the quarterly charge, only when the student is carrying less than 12 units per term
Technology fees	$50	Per quarter
Computer Fee	$350	Per quarter
Library fee	$25	Per quarter
Student Activity Fee	$30	Per quarter
Security deposit on computer hardware issued to student	$3,000	Refundable under terms of Laptop Usage Policy; See student handbook
Re-entry fee (non-refundable)	$50	Nonrefundable fee required of all applicants for re-enrollment after withdrawal has occurred.
Graduation fee	$100	Charged in last quarter of classes
Transcript fee	$10	Students are provided one official transcript upon graduation without charge, subsequent transcript requests will incur this fee
Duplicate diploma	$25	
Returned check penalty	$25	Per item

GRADUATE TUITION AND FEE TABLE

Application fee (non-refundable)	$35 ($125 In'l)	Required of all applicants
Enrollment fee *	$100	Required of all first time students.
Tuition assessed on a per credit basis	$550/QCH	Per Quarter Credit Hour, assessed quarterly.
Technology fees	$50	Per quarter
Library fee	$25	Per quarter
Student Activity Fee	$30	Per quarter
Re-entry fee (non-refundable)	$50	Nonrefundable fee required of all applicants for re-enrollment after withdrawal has occurred.
Graduation fee	$100	Charged in last quarter of classes
Transcript fee	$10	Students are provided one official transcript upon graduation without charge, subsequent transcript requests will incur this fee
Duplicate diploma	$25	
Returned check penalty	$25	Per item

*Refundable upon written request

The minimum full-time course load for undergraduate students is 12 credits per quarter, and 8 credits per quarter for graduate students. If a student falls below a full-time load, a per unit charge will be assessed in place of the quarterly charge described above.

TEXTBOOKS

Textbook costs per quarter are dependent upon the classes for which the student is registered and the textbooks purchased. Textbooks may be purchased through the bookstore in accordance with official university policies. At the time of issuance, textbooks become the responsibility of the student.

FINANCIAL OBLIGATION

A student who has applied, is accepted, and has begun classes at the University assumes a definite financial obligation. Each student is legally responsible for his or her own educational expenses for the period of enrollment. Tuition and fees for each term are due in full prior to the start of the term. Students who are unable to pay in full prior to the start of the term may arrange a payment plan for the balance.

Any student who is delinquent in a financial obligation to the University including damage to University property, library fines, or payment of tuition and fees is subject to exclusion from any or all of the usual privileges of the University.

PAYMENT POLICY

The University requires that arrangements for payment of tuition for all courses be completed in full at the time of registration. Students may choose to pay tuition and fees by check, cash, and/or credit card.

The University offers the services of several private companies that offer alternative methods of paying for educational costs. The Financial Aid Office will assist students in budgeting a payment plan using a wide range of financing alternatives. Students eligible for employer-sponsored tuition reimbursement benefits may request a deferred payment plan.

Further questions regarding these payment plans should be directed to a representative in the Financial Aid Office.

Students qualifying for federal financial assistance programs may use certain types of loans and/or grants to satisfy their financial obligations at the time of registration, even though the aid may not have been physically disbursed to them or posted to their accounts. Students seeking to meet their financial obligations in this manner must understand that it is their responsibility to provide all information and documentation necessary to obtain all forms of financial aid by the deadlines imposed by the fund source. Failure to do so may result in the student having to provide immediate payment of all applicable tuition and fees.

FINANCIAL ASSISTANCE INFORMATION

It is the goal of the University to assist all eligible students in procuring financial aid that enables them to attend the University. The University participates in various federal and private student financial assistance programs. The financial aid programs are designed to provide assistance to students who are currently enrolled or accepted for enrollment, but whose financial resources are inadequate to meet the full cost of their education. A full description of financial aid programs is included below. Students should meet with Financial Aid Office personnel to discuss the specific financial assistance available. The calendar year contains four quarters, however, the academic year is three quarters.

The primary responsibility for meeting the cost of education rests with the student and his or her family. All financial aid is awarded on the basis of need regardless of age, sex, race, color, religion, national or ethnic origin, marital or veteran status, or disability. Need is defined as the difference between the cost of education for one academic year and the amount a student's family can be reasonably expected to contribute to this cost of education for the same period.

Additional information regarding federal student aid can be found at www.studentaid.ed.gov and searching for the Student Guide. The direct link is: http://studentaid.ed.gov/students/publications/student_guide/index.html.

Consumer Information

Most of the information dissemination activities required by the Higher Education Amendments of 1998 have been satisfied within the University catalog. However, Financial Aid Office personnel are available to discuss consumer information in more detail with current and prospective students.

FEDERAL FINANCIAL AID

To be eligible for federal financial aid, a student must:
- Be enrolled as a regular student in an eligible program of study on at least a half-time basis (with the exception of Pell Grants),
- Have a high school diploma or the equivalent,
- Be a U.S. citizen, or an eligible non-citizen. Verification of eligible non-citizen status may be required,
- Have financial need, as determined by a needs analysis system approved by the Department of Education,
- Maintain Satisfactory Academic Progress,
- Provide required documentation for the verification process and determination of dependency status,
- Not owe a refund on a Pell Grant, FSEOG, or State Grant previously received from any college,
- Not have borrowed in excess of the annual aggregate loan limits for the Title IV financial aid programs,
- Be registered for the Selective Service, if a male born after December 31, 1959, and
- Have a valid Social Security number.

Application

To apply for financial aid, a student must complete the Free Application for Federal Student Aid (FAFSA). The application must be completed with extreme care and accuracy. Financial Aid Office personnel are available to assist students in the completion of this form and to answer any questions.

The FAFSA is used to determine eligibility for all types of financial aid programs. Once processed, the application will produce an Expected Family Contribution (EFC), which determines eligibility.

Financial aid from federal programs is not guaranteed from one year to the next. Each student must reapply every academic year.

Need and Cost of Attendance

Once the application is completed, the information will be used in a formula established by the U.S. Congress that calculates need and helps determine eligibility. When combined with other aid and resources, a student's aid package may not exceed the student's calculated need.

Tuition and fees, books, and other education expenses are considered in determining the student's cost of attendance. These include personal expenses, room and board, and transportation. Information on how those costs are derived may be obtained from the Financial Aid Office.

Borrower Rights and Responsibilities

When a student takes on a student loan, he or she has certain rights and responsibilities.

The borrower has the right to receive the following information before the first loan disbursement:
- The full amount of the loan,
- The interest rate,
- When the student must start repaying the loan,
- The effect borrowing will have on the student's eligibility for other types of financial aid,
- A complete list of any charges the student must pay (loan fees) and information on how those charges are collected,
- The yearly and total amounts the student can borrow,
- The maximum repayment periods and the minimum repayment amount,
- An explanation of default and its consequences,
- An explanation of available options for consolidating or refinancing the student loan, and
- A statement that the student can prepay the loan at any time without penalty.

The borrower has the right to receive the following information before leaving school:
- The amount of the student's total debt (principal and estimated interest), what the student's interest rate is, and total interest charges on the loan(s),
- A loan repayment schedule that lets the student know when his or her first payment is due, the number and frequency of payments, and the amount of each payment,
- If the student has FFELP loans, the name of the lender or agency that holds the student's loan(s), where to send the student's payments, and where to write or call if the student has questions,
- The fees that a student should expect during the repayment period, such as late charges and collection or litigation costs if delinquent or in default,
- An explanation of available options for consolidating or refinancing the student's loan, and
- A statement that the student can repay his/her loan without penalty at any time.

The borrower has a responsibility to:
- Understand that by signing the promissory note, the student is agreeing to repay the loan according to the terms of the note,
- Make payments on the student loan even if the student does not receive a bill or repayment notice,
- Continue to make payments until notification that the request for a deferment or forbearance has been granted,

- Notify the appropriate representative (institution, agency, or lender) that manages the student's loan when the student graduates, withdraws from school, or drops below half-time status; changes his or her name, address, or Social Security number; or transfers to another institution, and
- Receive exit counseling before leaving school.

Policies and Procedures for Verification of Applicant Information

Some students will be selected by the U.S. Department of Education for a process called verification. If selected for verification, the student must provide documentation to support the data elements contained on the FASFA. Generally, this documentation would include copies of income tax returns or a certification that a return was not required to be filed, sources and amounts of income, household size, number of family members attending post-secondary schools, dependency status, etc. The following procedures will be in effect for those students who have been selected for verification.

- Selected applicants must submit required verification documents within thirty (30) days of notification.
- Students will be informed of their responsibilities regarding the verification of application information, including the institution's deadline for completion of any actions required.
- Students will be given a clear explanation of the documentation needed to satisfy the verification requirements and the process for document submission.
- The institution will inform students in a timely manner of the consequences of failing to complete the verification requirements and the actions the University will take if the student does not submit the requested documentation within the time period specified.
- The institution will assist the student in correcting erroneous information.
- If the student fails to provide the required documentation within the established time frame, the student will be treated as a cash paying student until the documents are provided.
- If the student does not meet the deadline and is not capable of making cash payments, he or she may be dismissed from the University. If dismissed, the student may re-enter the University only when he or she can provide the documentation.
- Students will be notified if the results of verification change the student's scheduled award.
- Any suspected case of fraud will be reported to the Regional Office of the Inspector General, or, if more appropriate, to a state or local law enforcement agency having jurisdiction to investigate the matter. Referrals to local or state agencies will be reported on an annual basis to the Inspector General.
- No interim disbursements of Title IV aid will be made prior to the completion of verification.

Entrance and Exit Interview/Loan Counseling

The Department of Education requires that any student receiving a Federal Family Educational Loan be notified concerning their loans. The University counsels each student regarding loan indebtedness and gives each student an entrance test and mails an exit interview regarding the loan to ensure that the student understands the amount borrowed and the student's rights and responsibilities regarding repayment.

The student must report to the Financial Aid Office prior to withdrawal or graduation for loan counseling. The purpose of this session is to inform the student of his/her tentative total loans received while in attendance, refunds that may be made, and to provide the student with an estimated payment schedule. If the student is unable to meet with the Financial Aid Office, an exit interview will be mailed.

FINANCIAL AID PROGRAMS

All Title IV financial aid funds received by the institution will be credited to the student's account with the exception of requirements set forth in Section 682.604 of current federal regulations. The different types of financial aid programs available to those who qualify are discussed in detail below. Additional information may be obtained at www.fafsa.ed.gov.

Selection of Eligible Applicants

In accordance with Title 34 of the Code of Federal Regulations, Part 668.43(B)(3), the following procedures describe how aid recipients are selected from the pool of eligible applicants.

Federal Pell Grant

This grant is designed to assist students who desire to continue their education beyond high school. Federal Pell Grants are only awarded to undergraduate students who have not earned a Bachelor or professional degree. Each student is entitled to apply for a Federal Pell Grant. Eligibility is determined by the student's need, the cost of attendance, and the amount of money appropriated by Congress to fund the program. The amount of the grant is determined by a standard formula used by the Department of Education. The amount of grant available to the student will depend on the Expected Family Contribution (EFC) and the cost of attendance. For the '07 – '08 year Pell Grant Awards range from $400 – $4310 per academic year.

For many students, the Federal Pell Grant provides a "foundation" of financial aid to which other aid may be added to defray the cost of college education. Students or prospective students may secure an application to participate in the Federal Pell Grant program from the Financial Aid Office or from a high school counselor. The application will be transmitted electronically through a federally approved needs analysis system that will determine the applicants Expected Family Contribution (EFC).

Supplemental Education Opportunity Grant

Supplemental Education Opportunity Grant (SEOG) is awarded to applicants with a 0 EFC as funds are available.

Academic Competitive Grant (ACG)

An Academic Competitiveness Grant will provide up to $750 for the first year of undergraduate study and up to $1,300 for the second year of undergraduate study to full-time students who are U.S citizens, eligible for a Federal Pell Grant, and who had successfully completed a rigorous high school program, as determined by the state or local education agency and recognized by the Secretary of Education. Second year students must also have maintained a cumulative grade point average (GPA) of at least 3.0. The program will be available for the first time for the 2006-07 school year for first year students who graduated from high school after January 1, 2006 and for second year students who graduated from high school after January 1, 2005. The Academic Competitiveness Grant award is in addition to the student's Pell Grant award.

National Science and Mathematics Access to Retain Talent Grant or National Smart Grant (SMART)

A National SMART Grant will provide up to $4,000 for each of the third and fourth years of undergraduate study to full-time students who are U.S. citizens, eligible for a Federal Pell Grant, and majoring in physical, life, or computer sciences, mathematics, technology, or engineering or in a foreign language determined critical to national security. The student must also have maintained a cumulative grade point average (GPA) of at least 3.0 in coursework required for the major. The National SMART Grant award is in addition to the student's Pell Grant award.

There are additional eligibility requirements for both the ACG and SMART Grant. Please visit www.fafsa.ed.gov for more information.

Federal Family Educational Loan Program (FFELP)

Subsidized Federal Stafford Loans, Unsubsidized Federal Stafford Loans, and Federal PLUS Loans comprise the Federal Family Educational Loan Program (FFELP) and are discussed individually below.

Subsidized Federal Stafford Loans

Federal Stafford loans are low interest loans that are insured by a guaranty agency and made to the student by a lender such as a bank, credit union, or savings and loan association. The subsidized Stafford loan is awarded based on financial need.

The subsidized Stafford loan is deferred while the student is enrolled and for a period of six months beyond the student's last date of attendance. During this period the interest is paid by the federal government as long as the student remains enrolled in at least a half-time status. Deferments after the student drops below half-time status are not automatic and the student must contact the lender concerning his or her loan. Applications for deferment can be obtained from the Financial Aid Office or from the lender. For additional deferment information, contact the Financial Aid Office.

For loans first disbursed on or after July 1, 2007, a Stafford loan made to any Stafford borrower, regardless of whether the borrower had FFELP loans outstanding, will have a fixed interest rate of 6.8 percent.

If the student is a dependent undergraduate student, he or she may borrow up to:
- $3,500 if he or she is a first-year student enrolled in a program of study that is at least a full academic year.
- $4,500 if he or she has completed the first year of study and the remainder of the program is at least a full academic year.
- $5,500 a year if he or she has completed two years of study and the remainder of the program is at least a full academic year.

For periods of undergraduate study that are less than an academic year, the amounts the student can borrow will be less than those previously listed. Ask Financial Aid Office personnel for specific details. The maximum indebtedness for a dependent undergraduate student is $23,000.

Graduate students may borrow up to $20,500 for each academic year with no more than $8,500 of this amount being in subsidized loans. The maximum total indebtedness for a graduate student is $138.500 with no more than $65,500 of this amount being in subsidized loans.

Origination fees and insurance premium fees, which may vary by lending institution, will be deducted proportionately from each disbursement and paid to the federal government.

Unsubsidized Federal Stafford Loans

The unsubsidized Stafford loan is available to eligible students, regardless of family income and is designed for those who do not qualify in whole or in part, for subsidized Stafford loans. An unsubsidized Stafford loan is not awarded based on need. The term "unsubsidized" means that interest is not paid for the student during the "in-school" period.

The terms of an unsubsidized Stafford loan are the same as those for a subsidized Stafford loan with the exceptions of the following: the government does not pay interest on the student's behalf on an unsubsidized Stafford loan. All interest that accrues on the loan during enrollment and the grace period is required to be paid by the student. The student has two options of repayment of the accrued interest: (1) make monthly or quarterly payments to the lender, or; (2) the student and the lender may agree to capitalization of the accrued interest.

If the student is an independent undergraduate student or a dependent student whose parents are unable to get a PLUS loan, he or she may borrow up to:
- $7,500 if he or she is a first-year student enrolled in a program of study that is at least a full academic year. (no more than $3,500 of this amount may be in subsidized loans.)
- $8,500 if he or she completed one year of study and the remainder of the program is at least a full academic year. (no more than $4,500 of this amount may be in subsidized loans.)
- $10,500 a year if he or she completed two years of study and the remainder of the program is at least a full academic year. (no more than $5,500 of this amount may be in subsidized loans.)

For periods of undergraduate study that are less than an academic year, the amounts the student can borrow will be less than those previously listed. The maximum total indebtedness for an independent undergraduate student is $46,000. (No more than $23,000 of this amount may be in subsidized loans.)

The student will be charged an origination fee/insurance premium on the amount of the unsubsidized Stafford loan not to exceed 4 percent. The fee will be deducted proportionately from each disbursement and paid to the federal government.

Federal Parent Loans for Undergraduate Students (PLUS)

The Federal PLUS loan is available to parents of dependent students to help pay for the educational expenses of the student. PLUS loans are not based on need; but when combined with other resources, cannot exceed the student's cost of education.

Parents may borrow up to cost of attendance minus other aid per eligible dependent student. There is a 3 percent origination fee on a PLUS loan made on or after July 1, 2006, and up to 1 percent insurance premium may be deducted proportionately from the loan principal after each payment. The interest rate is a fixed 8.5 percent.

Repayment begins within 60 days of the final disbursement unless the parent qualifies for and is granted a deferment by the lender. There is no grace period for these loans. Interest begins to accumulate at the time the first disbursement is made, and parents will begin repaying both the principal and interest while the student is in school. Although the minimum payment amount is $50 per month with at least five years (but no more than 10 years) of repayment, the actual payment and schedule is determined by the total amount borrowed. Applications can be obtained from the Financial Aid Office or from the lender.

For deferment information, contact the Financial Aid Office.

Alternative Financing Programs

Neumont University offers alternative financing arrangements to supplement Title IV financial aid. These loans are not guaranteed by the federal government and may be subject to credit approval. Some of these loan programs are funded by the University and are administered (collection of monthly payments, servicing of the loan, etc.) by an independent servicing company. The amount that a student may borrow under these alternative loan programs is limited by several factors, including the federal guidelines which establish the amount of financial aid for which the student is eligible, less the expected family contribution toward the educational costs and any other types of financial aid for which the student has qualified or may qualify. If a student has exhausted all external sources of financial aid, both federal and private, he or she may apply for a University funded loan, which is serviced by the National Loan Servicing Center (NLSC). Application for this type of funding takes into consideration additional factors including the availability of funds and the academic qualifications of the applicant. More information about the alternative loan programs, and the Neumont University NLSC program, may be obtained by visiting the Financial Aid Office.

SCHOLARSHIPS

The University offers many scholarship opportunities for both new and continuing students. For information on scholarships for new students, please see the Scholarship Section of this catalog for a full description of scholarships available and application deadlines.

The University has quarterly scholarship opportunities for continuing students as described below:

QUARTERLY SCHOLARSHIPS FOR CONTINUING STUDENTS
The Founders' Scholarship for Top Performers
Those students who have achieved an academic standing within the top 10% of the current student cohort population or have achieved a 4.0 GPA during the preceding quarter will be awarded the Founders' Scholarship.

The Founders' Scholarship Award in the amount of $500 will be applied toward tuition and is valid only for the quarter following the quarter in which the award was achieved. The student must be in attendance during the following quarter to receive this scholarship.

The total dollars available to be applied to a student's account my not exceed, on a cumulative basis, more than 100% of charges for tuition.

VETERAN'S ASSISTANCE PROGRAMS
Programs at Neumont University Salt Lake City Campus are approved for veterans training.

Veteran Education and Employment Assistance Act of 1976 as Amended
Veterans eligible for training under the Montgomery G.I. Bill are entitled to a monthly allowance while attending the University. Veterans with over three years of active duty or two years of active duty and four years in the selected reserve are entitled to a maximum of 36 months of training. The University will assist in preparing and submitting applications.

War Orphan Educational Assistance
This program provides financial assistance for the education of sons and daughters of veterans who died or were permanently and totally disabled in, or as a result of, service in the Armed Forces of the United States. Benefits are similar to those of the G.I. Bill. Widows and wives of disabled veterans may also be eligible for this program. The University will assist in preparing and submitting applications.

Vocational Rehabilitation for Veterans
Veterans disabled during war time or in certain peace time service may be eligible for educational benefits and training under this program. Applications must be filed directly with the Veterans Administration.

Students receiving veterans' benefits are required by the Veterans Administration to provide transcripts of credit from all post-secondary schools previously attended.

CANCELLATIONS, WITHDRAWALS AND REFUND POLICY
Cancellations
The applicant's signature on the Neumont University application does not constitute admission into the University until the student has been accepted for admission by the Neumont University Acceptance Committee. The applicant may request cancellation until the end of the third day of the first term of attendance. The refund will be made within 30 days of receipt of such notice. First time students who withdraw within three calendar days after classes have commenced will not be assessed tuition charges.

Withdrawals and Refunds
The University employs a fair and equitable refund policy that complies with federal, state, and accreditation guidelines for the return of unearned tuition and fees in the event of withdrawal. To begin the process of withdrawal a student must give written notice to the Registrar's Office. Written notice may be hand delivered or mailed to Neumont University-Salt Lake City Campus, Attention Registrar, 10701 South River Front Parkway, Suite 300, South Jordan, Utah 84095 or Neumont University-Northern Virginia Campus, Attention Records Manager, 21000 Atlantic Blvd, Suite 100, Dulles, Virginia 20166..

Any monies due a student shall be refunded within 30 days of the date on which Neumont University has determined that a withdrawal has taken place. A withdrawal is considered to have occurred on the date that the student provides to the school official notification of his or her intent to withdraw. Notification should be provided in writing to the Office of Academic Programs or to the Registrar. If the student ceases attendance without providing official notification, the withdrawal date used in the refund and federal Return to Title IV calculation is the mid-point of the quarter. Alternatively, the institution may use the last date of attendance at an academically related activity as the withdrawal date.

If the student is unable to begin the institution's withdrawal process or otherwise provide official notification of his or her intent to withdraw because of illness, accident, or other such circumstances beyond the student's control, a third party may provide notice to the Registrar's office. The date of withdrawal will be the date that most accurately reflects when the student ceased academic attendance due to the circumstances beyond the student's control.

When a student withdraws, the institution must consider two separate calculations: the return to Title IV and the institutional refund.

Return to Title IV
The first calculation is done only for students who have received Title IV student financial aid and is required by federal law, which specifies the formula for the calculation. (See Federal Student Aid Guide.) This "Return to Title IV" calculation is made to determine how much federal grant and loan assistance the student has earned under the federal policy. Any unearned funds must be returned to the federal student aid programs.

Institutional Refund Policy
The second calculation is to determine how much of the tuition and fees the institution may retain under the institutional refund policy. Students who have completed more than 60 percent of the quarter will receive no refund.

For students who terminate their schooling before completing more than 60 percent of the quarter, the University will perform a pro rata refund calculation.
Under a pro rata refund calculation, the University is entitled to retain only the percentage of charges (tuition, fees, etc.) proportional to the period of enrollment completed by the student. The period of enrollment completed by the student is calculated by dividing the total number of weeks in the term into the number of weeks completed in that period (as of the withdrawal date). The percentage of weeks attended is rounded up to the nearest 10 percent and multiplied by the institutional charges for the quarter.

The period of enrollment completed by the student is calculated by dividing the number of days in attendance by the total number of days in the term.

Any unpaid balance of tuition and fees that remains after calculating the institutional refund policy and returning the amount of unearned financial aid funds, if any, based on the Federal Return of Title IV Funds policy, must be paid by the student to the institution.

Timely notification by the student will result in the student being charged tuition and fees only for the portion of the period of enrollment that is attended as well as ensuring a timely return of federal funds and any other refunds that may be due. Failure of students to provide official notification to the University of the intent to withdraw means that the students will continue to be obligated for the tuition and fees and will delay the return of federal funds to the appropriate programs and will delay returning any other refunds that may be due.

It is extremely important that the student understand the implications of withdrawing before completing the coursework in the quarter because of its potential impact on the student's finances. The Financial Aid Office provides assistance to students to determine the exact impact of early withdrawal on their repayment obligations.

If the student (or parent, in the case of a PLUS loan) is eligible for additional funds at the time of withdrawal, the student may receive additional SFA funds.

If the student received more SFA funds than he or she earned under the Federal Return of Title IV Funds policy, the institution, and in some cases the student, is required to return the unearned funds to the Federal program(s) or lender, as applicable.

Return of SFA Funds

If it is determined that SFA program funds must be returned, based on the student's financial aid award, the return of SFA funds will be made in the following order:

1. Unsubsidized Federal Stafford Loan Program;
2. Subsidized Stafford Loan Program;
3. Federal PLUS Loan Program;
4. Federal Pell Grant Program; and any
5. Other grant or loan assistance authorized by Title IV of the HEA.
6. Refunds Under Exceptional Circumstances

Tuition and fees for the current term will be refunded in full under the following circumstances:

- Courses cancelled by the University;
- Involuntary call to active military duty;
- Exceptional circumstances, with approval of the President of the University (or designee).

ACADEMIC INFORMATION

DEFINITION OF CREDIT
The University awards credit in the form of quarter credits. One quarter credit is equivalent to a minimum of 10 class hours of theory or lecture instruction, a minimum of 20 hours of supervised laboratory instruction, or a minimum of 30 hours of internship and/or externship practice.

ATTENDANCE POLICY
The purpose of the Attendance Policy is to foster those behaviors that facilitate student learning and reflect the standards expected in the workplace.

Students are expected to be present at all of their regularly scheduled classes. A student may be assigned a zero for any assignment missed because of absences. Grades may be lowered because of excessive absences. Students are also expected to be in class on time and remain for the entire session. Grades may also be lowered due to these violations.

Students with poor attendance may be subject to advising. Students who have been advised of poor attendance may be subject to dismissal. Neumont University reserves the right to dismiss a student based upon poor attendance.

Instructors may have an attendance policy for their individual courses that will be announced at the beginning of each quarter and included in the course syllabus.

In any case, a student will be automatically withdrawn from the university not later than seven (7) consecutive instructional days of absences.

Additional attendance policy details are found in the Student Handbook.

LEAVE OF ABSENCE
The University does not permit leaves of absence. Students experiencing circumstances that may make it necessary to withdraw should see the Office of Academic Programs.

GRADING SYSTEM AND PROGRESS REPORTS
Grades earned in each course are recorded on the student's permanent record. Evaluation of student achievement will be made in relation to the attainment of the specific objectives. At the beginning of a course, the instructor will provide students with a syllabus detailing these objectives and the basis upon which grades are determined. A cumulative grade point average (CGPA) of 2.0 is required for graduation. A student who fails a course is permitted to continue as long as the student makes satisfactory progress towards graduation. Grade definitions are as follows:

GRADE	GRADE POINT	INCLUDED IN RATE OF PROGRESS	INCLUDED IN GPA
A	4.0	Y	Y
A-	3.7	Y	Y
B+	3.3	Y	Y
B	3.0	Y	Y
B-	2.7	Y	Y
C+	2.3	Y	Y
C	2.0	Y	Y
C-	1.7	Y	Y
D+	1.3	Y	Y
D	1.0	Y	Y
D-	0.7	Y	Y
F (FAIL)	0.0	Y	Y
P(PASS)	N/A	Y	N
IW	N/A	N	N
W	N/A	Y	N
WU	0.0	Y	Y
WS	N/A	Y	N
AUD	N/A	N	N
INC	N/A	Y	N

GPA AND CGPA CALCULATIONS
The grade point average (GPA) for each term and cumulative grade point average (CGPA) are calculated on courses taken in residence at the University. The GPA for each term is calculated by dividing the points earned that quarter by the total cumulative credits attempted for the GPA. The CGPA is calculated by dividing the total cumulative points earned by the total cumulative credits attempted for the GPA.

The number of points awarded for each course is determined by multiplying the points listed for each letter grade by the number of credits of the course. For example, a grade of A in a four-credit course earns 4 (credits) X 4.0 (points) for a total of 16.0 points and a grade of C in a three-credit course earns 3 (credits) X 2.0 (points) for a total of 6.0 points.

W/WU/WS/IW Course Withdrawal
Students who officially withdraw from a course after the add/drop period but before the completion of the first 21 calendar days of the term will be given a "W" (withdraw) grade for that course. Between calendar day 22 and calendar day 35 of the course, students will be given a "WS" (withdraw satisfactory) or "WU" (withdraw unsatisfactory), depending on the status of class work accomplished as of the withdrawal date. Students who are enrolled in the University are not allowed to withdraw from a class after calendar day 36 of the term.

An official course withdrawal is initiated with the Office of Academic Programs. A "W" or a "WS" grade does not apply to a student's grade point average but does apply to a student's rate of progress. A "WU" grade is applicable to both a student's grade point average and course completion ratio and is the equivalent to a grade of "F".

An "IW" (involuntary withdrawal) does not apply to a student's grade point average nor does it apply to a student's rate of progress.

Final grades are reported at the completion of each grading term and are provided to each student.

Auditing Courses

Students may register to audit any lecture-based courses, subject to class size, advisor, and instructor authorization. You may register to Audit a class during the Add/Drop period. Courses that are entered on a student's record as audited (AUD) do not earn academic credit nor fulfill any other academic requirements. Standard tuition fees are required for audited classes. Graduates may audit previously taken lecture-based courses, with instructor authorization, at no additional charge.

Incomplete (INC)

An Incomplete (INC) is a temporary designation given at the professor's discretion to a student whose course work has been of acceptable quality but, through no fault of his or her own, is unable to complete the required course material on schedule. This designation indicates that more than 50% of the course work has been completed, the student has been in attendance, and he or she satisfactorily completed the required work. All class assignments must be completed within ten weeks of the due date. An Incomplete (INC) that has not been resolved by the first day of the following quarter will automatically be assigned a letter grade of "F". In the interim, the grade of INC will be calculated as credits attempted in the calculation of successful course completion percentage, but it will not impact the student's GPA.

Add/Drop Period

The Add/Drop Period is defined as the first calendar week of the term. Students may drop or add classes without penalty during this period.

Remedial Courses

Courses with course numbers between 0-099 are considered remedial courses and there are no quarter credit hours awarded. Grades are pass/fail and are not included in any Satisfactory Academic Progress (SAP) or GPA calculations.

GRADUATION

Commencement exercises will be held at least once a year. All students completing their course work are included in the graduating class of that year. All students upon whom degrees are to be conferred are encouraged to participate in the commencement exercises.

Graduates must fulfill all financial obligations, including tuition charges, fees, and other expenses, before the degree is granted.

Graduation with Honors

Undergraduate students who have earned the requisite credits for graduation with the following cumulative grade point averages, are entitled to the appropriate honors: 3.50-3.75, cum laude; 3.76-3.89, magna cum laude; 3.90 and above, summa cum laude.

TRANSFER TO OTHER COLLEGES

The University neither implies nor guarantees that credits completed at the University will be accepted by other institutions. Since rules and grade requirements vary, each institution has policies that govern the acceptance of credit from other institutions. Transfer of credit is a privilege granted by the institution to which a student may seek admission. Therefore, if the student anticipates a transfer of credits earned at Neumont University, the student must have already inquired with those institutions from which recognition of academic work at the University will be sought.

ACADEMIC LOAD

A student taking twelve (12) or more quarter hours toward the Bachelor degree will be classified as a full-time student for that term. A student taking eight (8) or more quarter hours toward the Master's degree will be classified as a full-time student for that term.

REPEATING COURSES

A student may repeat a course taken at the University in order to improve the cumulative grade point average. Credit is only given for the last grade earned when repeating a course. Repeated courses will appear on the student's transcript. The first attempt will also be shown; however, the cumulative grade point average will be recomputed to count the last attempt only. All repeats will be charged at the current tuition rate.

Credits may only be earned once per course. If a student retakes a class from which they have earned credit, the credits for the first course completed will not count toward earned credits. However, those credits will count toward the rate of progress as credits attempted.

ACADEMIC DEFICIENCIES

Following the conclusion of each grading period, the grades of each student will be audited by the Office of Academic Programs. As a result of this audit, it may be necessary to reschedule the student or to place the student on a status of academic probation or academic dismissal.

STANDARDS OF SATISFACTORY ACADEMIC PROGRESS

Students must maintain Satisfactory Academic Progress (SAP) in order to remain eligible to continue as regularly enrolled students of the University. Additionally, SAP must be maintained in order to remain eligible to continue receiving federal financial assistance.

Satisfactory academic progress is determined by measuring the student's cumulative grade point average (CGPA) and the student's rate of progress toward completion of the academic program. If a student fails to meet the required standards of SAP, he or she will be placed on academic probation. Standards of SAP apply to all regular students.

The elements of Satisfactory Academic Progress are as follows:

- Cumulative grade point average
- Rate of progress
- Maximum time frame

Cumulative Grade Point Average (CGPA) Requirements

Students must meet specific cumulative grade point average requirements at specific points during their enrollment in order to be considered to be making SAP. Satisfactory Academic Progress is defined as a CGPA equal to or exceeding 2.0. The quarterly and cumulative GPA will be evaluated at the end of every term, after grades have been posted, to determine if the student's CGPA is in compliance.

RATE OF PROGRESS	CGPA	Rate of Progress: % of attempted credits completed
End of the first Academic Year	2.0	60%
End of each subsequent Academic Year	2.0	66%

Rate of Progress

In addition to the CGPA requirements, a student must successfully complete a certain percentage of the credits attempted. Credits attempted are defined as those credits for which students are enrolled at the end of the add/drop period of each academic term. These percentage requirements are noted in the tables below, along with the CGPA requirements. The percentage completion requirements will be reviewed at the end of each academic year, after grades have been posted, to determine if the student is progressing satisfactorily.

Maximum Time Frame

A student must complete all of the requirements for graduation without exceeding 150 percent of the required quarter credit hours for the program in which they are enrolled. Therefore, for the undergraduate student the total number of credits that may be attempted (maximum time frame) is 270 quarter credits (150 percent of 180). For the graduate student the total number of credits that may be attempted is 81 credits (150 percent of 54).

If it becomes mathematically impossible to complete the program within the maximum time frame, a student may be immediately dismissed. The student will not be eligible to appeal. However, the student may continue as a Non-Degree Seeking student at the regular tuition rate until they have attempted the maximum attempted credits.

Cumulative Grade Point Average at Midpoint

At the end of the second academic year (sixth term) and at the end of each subsequent academic year(s), the University will evaluate each student's CGPA. A student receiving federal financial aid must meet the CGPA minimum requirement of 2.0 or they will no longer be eligible for financial aid, may not be placed on probation, and must be dismissed, unless the student wishes to continue without being eligible for federal financial aid. However, a student not meeting the CGPA standards at the end of the second year may appeal based on mitigating circumstances (i.e. death in the family, sickness of the student, etc.), and may remain as an enrolled student who is eligible for federal financial aid if appeal is approved. See Academic Dismissal Appeal below.

Probation and Dismissal

If a student falls below the requirements of SAP at the end of any quarter, the student will be notified by the Office of Academic Programs and placed on academic probation. The student will be notified by letter sent to the current address in the student file as well as by email. Students placed on academic probation may continue as regular students and be eligible to receive financial aid. A student will be removed from probation only when he or she fully meets the standards for SAP for the academic program. If the student does not meet SAP requirements by the end of the following quarter, he or she will be notified that they have 10 calendar days from the date on the notification letter to appeal or will be dismissed from the university. A student may be dismissed if it becomes impossible to cure SAP within the maximum time.

Academic Dismissal Appeal

Students that have been notified that they will be dismissed will have the opportunity to appeal the dismissal for mitigating circumstances (i.e. death in the family, sickness of the student, etc.). The student must contact the Office of Academic Programs to appeal the dismissal within 10 calendar days from the date on the notification letter. During the appeal process and until a decision is reached on the appeal, the student remains enrolled in the school and is eligible for financial aid.

If the Academic Dismissal Appeal is accepted, then the student is allowed one additional quarter to meet SAP requirements. The appeals acceptance and conditions for reinstatement are recorded by the committee and communicated to Student Services and the Office of Academic Programs. Student Services then communicates the appeal decision and the conditions to the student.

If a student does not appeal within 10 days of notification, or the appeal is denied, the student will be dismissed from the school. Students on dismissal will lose their eligibility to receive federal financial aid. The lender will be notified of the student status change within 30 days from the last date of attendance.
No student on probation will be allowed to graduate.

Extended Enrollment Status

A student on academic dismissal may continue in an extended-enrollment status but will be subject to the following limitations:

- The student may be in Extended Enrollment Status for one additional quarter beyond the quarter in which they were dismissed.
- The student will not be eligible for Federal Financial Aid and will be charged for the course at the current tuition rate.
- The student must earn a grade of "B" or higher in each retaken course for which they are registered.
- Credits earned during extended enrollment may be counted toward program requirements.
- While in an extended-enrollment status, students must correct academic deficiencies. A student will not be eligible to graduate if they exceed one and one-half times the standard time frame, either as a regular student or in an extended-enrollment status.
- The student must petition the Office of Academic Affairs in writing for approval of an extended-enrollment status. If extended enrollment status is granted, the student must meet with someone from the Office of Academic Affairs and agree to a written corrective action plan. This corrective action plan will be placed in the student's academic file.
- At the end of the Extended Enrollment Status period, if the student has met Satisfactory Academic Progress requirements they will be eligible to be a regular active student and eligible for Federal Financial Aid. If Satisfactory Academic Progress is still not met, they will no longer be eligible to register for classes at the University.

Application of Grades and Credits

Transfer credits are not included in the calculation of CGPA but are included in the "Total Number of Credits Attempted.". Transfer credits are included as credits attempted and successfully completed in calculating the rate of progress.

A grade for a repeated course replaces the original grade in the calculation of CGPA; however, the original course credits remain included in the "Total Number of Credits Attempted" in order to determine the required progress level. The original credits are considered as not successfully completed.

TRANSCRIPTS

All student academic records are retained, secured, and disposed of in accordance with local, state, and federal regulations. All student record information is maintained on the University computer system. Permanent records are kept in paper form or electronically. The University maintains complete records for each student that includes grades, prior education and training, and awards received.

Student academic transcripts, which include grades, are available upon written request by the student. Student records may only be released to the student or his/her designee as directed by the Family Educational Rights and Privacy Act of 1974.

Transcript requests must be made in writing to the Office of the Registrar. Official transcripts will be released to students who are current with their financial obligation (i.e., tuition and fees due to the University are paid current per the student's financial agreement).

Students are provided an official transcript free of charge upon completing graduation requirements. There is a fee for each additional official transcript requested.

CAMPUS ADMINISTRATION & FACULTY

UNIVERSITY ADMINISTRATION

Graham Y. Doxey	President
Maurine Findley	Chief Operating Officer
Sam Puich	Dean
Oma Sewhdat	Senior VP Employer Relations
Tom Mehalko	Executive Director
Scott Doxey	Vice President of Academic Affairs and Operations
Jerusha Harding	Business Manager
Jeme Deviny	Director of Financial Aid
Larry Crandall	Director of Academic Programs
Erin McCormack	Student Services Manager
Shawn Loutensock	Program Manager, Career Services

FACULTY

Name	Degrees Held	Area of Specialization
Carver, Andy	B.S.E.E. Electric Engineering, University of Oklahoma M.Div., Westminster Theological Seminary Ph.D. New Testament, University of Durham	Computer Science Conceptual Modeling
Coleman, Paul	B.A. Middle Eastern Area Studies, Arabic, University of Utah; MBA, University of Phoenix	Computer Science J2EE Systems Architecture
Crandall, Larry	B.S. Speech, Utah State University	Oral And Collaborative Communications
Curland, Matthew	B.S. Mathematics, University of Washington	Computer Science .NET Architecture
Doxey, Scott	B.A. Administrative Systems, Utah State University M.S. Business Info. Systems and Education, Utah State University	Business Administration and Information Systems Management
Ensign, Mark	B.S. Mathematics, University of Utah M.S. Mathematics, University of Utah	Computer Science Object Oriented Development
Finlay, John	B.S. Computer Engineering, Brigham Young University	Computer Science Open Source Software
Halladay, Steven	B.A. Communications, Brigham Young University M.S. Computer Science, Brigham Young University	Computer Science Java Software Methodologies
Halpin, Terence	B.S. Physics, University of Queensland Dip. Ed. Science Education, University of Queensland B.A. Philosophy, University of Queensland M. Litstud. Logic, University of Queensland Ph.D. Computer Science, University of Queensland	Computer Science Conceptual Modeling and Databases
Kennedy, Meghan	B.S. Psychology, Brigham Young University M.S. Instructional Psychology and Technology, Brigham Young University	Instructional Design Psychology Collaboration and Communications
King, Jamie	B.S. Computer Science, Utah Valley State College	Computer Science .NET Technology
Liska, Pedro	B.S. Electronics, Francisco Marroquin University	Computer Science Collaborative Web Applications
Morgan, Tony	B.A. Earth Sciences, Open University B.S. Computer Systems Engineering, Coventry University M.S. Control Engineering, Coventry University Ph.D. Computer Science, University of Cambridge	Computer Science Model Driven Development Business Rules
Pace, Aaron	B.S. Computer Engineering, Brigham Young University M.S. Computer Science, Brigham Young University	Computer Science
Puich, Samuel	B.S. Computer Science, Montana Tech B.S. Secondary Education, Western Montana College M.S. Computer Information Systems, University of Phoenix	Computer Science Algorithms and Data Structures
Reed, Aaron	B.S. Computer Science, Weber State University MBA, Neumont University	Computer Science Enterprise Software Practices
Turner, Jonathan	B.S. Computer Science, Brigham Young University	Computer Science .NET Technology
Walkenhorst, Jacob	B.S. Computer Science, Brigham Young University	Computer Science User Interface Technologies
Loutensock, Shawn	B.A. Communications	University of Utah

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