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.
2013 FALL QUARTER
September 30 - October 4 .... Freshman Orientation Week
October 7 ............................................................. First Day of Class
October 7-November 8 .............................................. Sprint 1
October 9 ...............................................................Add/Drop Deadline Sprint 1
November 11-December 17 .................................... Sprint 2
November 13 ....................................................... Course Adjustment Deadline Sprint 2
November 28-29 ........................................ Thanksgiving Break (no class)
December 17 ........................................................ Last Day of Class

2014 WINTER QUARTER
January 6 ............................................................. First Day of Class
January 6 -February 10 .............................................. Sprint 1
January 8 ...............................................................Add/Drop Deadline Sprint 1
January 20 ............................................................. Civil Rights Day (no class)
February 11 - March 18 ........................................ Sprint 2
February 13 ....................................................... Course Adjustment Deadline Sprint 2
February 17 ........................................................ President’s Day (no class)
March 18 .............................................................. Last Day of Class

2014 SPRING QUARTER
April 7 ................................................................. First Day of Class
April 7 - May 9 ............................................................. Sprint 1
April 9 ................................................................. Add/Drop Deadline Sprint 1
May 12 - June 13 .......................................................... Sprint 2
May 14 ....................................................... Course Adjustment Deadline Sprint 2
May 26 ................................................................. Memorial Day (no class)
June 13 .............................................................. Last Day of Class

2014 SUMMER QUARTER
June 30 ............................................................. First Day of Class
June 30 - August 5 .............................................. Sprint 1
July 2 ................................................................. Add/Drop Deadline Sprint 1
July 4 ................................................................. Independence Day (no class)
July 24 ............................................................... Pioneer Day (no class)
August 6 - September 10 ...................................... Sprint 2
August 8 ....................................................... Course Adjustment Deadline Sprint 2
September 1 ........................................................ Labor Day (no class)
September 10 ................................................... Last Day of Class

2014 FALL QUARTER
September 29 ................................................... First Day of Class
September 29 - October 31 ........................................ Sprint 1
October 1 ............................................................. Add/Drop Deadline Sprint 1
November 3 -December 9 .................................... Sprint 2
November 5 ....................................................... Course Adjustment Deadline Sprint 2
November 27-28 ........................................ Thanksgiving Break (no class)
December 9 ........................................................ Last Day of Class

2015 WINTER QUARTER
January 5 ............................................................. First Day of Class
January 5 -February 9 .............................................. Sprint 1
January 7 ............................................................. Add/Drop Deadline Sprint 1
January 19 .......................................................... Civil Rights Day (no class)
February 10 - March 17 ........................................ Sprint 2
February 12 ....................................................... Course Adjustment Deadline Sprint 2
February 16 ........................................................ President’s Day (no class)
March 17 .............................................................. Last Day of Class

For an electronic version visit
www.neumont.edu/academiccalendar
PRESIDENT’S MESSAGE

Welcome to Neumont University. Technology is advancing the way the world works, recreates, communicates, and learns. The Neumont mission is to provide a professional education that is rich in ideas, current in industry practices, and deep in technological insight from the input of industry-leading partners. Your time in our programs will feel like a whirlwind of learning, growth, and team-work. As you explore the courses and services available at Neumont, you will discover what makes Neumont a superior option for your digitally-oriented education. It is my hope that you will take advantage of the remarkable learning opportunities Neumont provides, building knowledge, memories, and friendships that last a lifetime.

As you review this Catalog you might notice that, although our programs concentrate on the digital sciences at the Bachelors and Masters degree level, we also provide an essential foundation of general education courses. Neumont prepares graduates with the courses required to fulfill your degree requirements through the foundation of a relevant, well-rounded education. Our General Education offerings support and enhance your learning interests. Through project courses and industry-partnered Enterprise Projects, you will have many opportunities to explore advanced technologies, work with industry experts, refine your skills, and build a portfolio of real project experiences.

A degree from Neumont University is a seal of approval from leading companies – proof that you have developed the ability to create, theorize, and adapt quickly in a teamwork environment. It is these skills that enable Neumont graduates to maintain a competitive edge throughout the course of their career, resulting in impressive starting salaries at exciting companies. Leading employers say that our distinguished faculty have designed programs that deliver more useful knowledge than most four-year programs – in a fraction of the time. Explore the courses in this Catalog and you will see how Neumont will help you to become a tech-ready, team-ready, and project-ready technology innovator.

I look forward to seeing you on campus.

Best wishes,

Edward H. Levine
President, Neumont University
CAMPUS ADMINISTRATION AND FULL TIME FACULTY

UNIVERSITY ADMINISTRATION
Edward Levine, President
Richard Johnson, Chief Financial Officer
Aaron Reed, Executive VP Academic Operations
Isabella Porter, VP Marketing
Erin McCormack, Dean of Students
Dave Conger, Director of Information Technology
Karick Heaton, Director of Admissions
Stacy Cahoon Hughes, Director of External Affairs
Jayson Beagley, Program Manager, Career Services
Larry Crandall, Registrar

Beagley, Jayson  B.S. in Exercise and Sports Science, University of Utah
                 M.B.A., Minnesota School of Business

Clark, Tim      B.S. in Computer Science, Neumont University

Fletcher, Benjamin  B.S. in Business, Utah State University
                    M.B.A., University of Utah

Halladay, Steven  B.A. in Communications, Brigham Young University
                    M.S. in Computer Science, Brigham Young University

Herrera, Mark    B.S. in Mathematics, University of Utah
                    J.D., University of Utah

Kane, John       B.A. in Mathematics, Carroll College
                    M.S. in Mathematics, Montana State University
                    M.B.A., Neumont University

Krebs, Joshua    B.S. in Computer Science, Neumont University

King, Jamie      B.S. in Computer Science, Utah Valley State College
                    M.S.C.S., Game Engineering and Computing, University of Utah

Lee, Carlos      A.S. in Computer Science, Brigham Young University, Hawaii
                    B.S. in Business Management, Brigham Young University, Hawaii
                    M.B.A., Brigham Young University

Parker, Kristen  B.A. in English Teaching, University of Utah
                    M.A. in American Studies, University of Utah

Pay, Gerald      B.S. in Microbiology, Brigham Young University
                    M.B.A., Western Governors University

Reed, Aaron      B.S. in Computer Science, Weber State University
                    M.B.A., Neumont University

Walkenhorst, Jake B.S. in Computer Science, Brigham Young University

Warner, Matt     B.S. in Information Systems & Technologies, Weber State University
                    M.B.A., Weber State University
MISSION

The mission of Neumont University is to provide a professional education that is rich in ideas, current in industry practices, and deep in technological insight from the input of industry-leading partners.

We are committed to: a collaborative learning process, a quality learning environment, contributing broadly to students’ lives, and bringing value to the enterprises with which we partner.

Our graduates will be known for their technology expertise and business acumen, their capacity to innovate, and their motivation to succeed.
ABOUT NEUMONT UNIVERSITY

STUDENT LEARNING GOALS

• Provide students the opportunity to develop the necessary technical, business, and collaboration skills, knowledge; and experience to enter the workplace as productive, competent professionals in their field.

• Provide a learning environment where students are immersed in daily application of relevant principles and practices.

• Foster strong relationships with leading companies and professionals in the computer science field to situate student learning in the context of authentic problems faced by the technology industry.

• Create opportunities for students to develop effective collaboration and interpersonal communication skills that transfer to building successful relationships and teams in the workplace.

• Improve student learning by innovating and applying the best practices in the areas of project-based learning, problem-based learning, competency-based assessment, and teaching effectiveness during all stages of learning.

• Encourage creativity and individual expression by providing rich project experiences that mirror the target employment environment.

• Build a bridge between students and employers by engaging in community and global projects.

• Assess the development and progress of instruction to improve the student learning experience.

STUDENT AFFAIRS GOALS

• Help students adapt to an intensive, accelerated, project-based learning environment that is significantly different from a traditional educational environment. Reward those students who demonstrate self-discipline, motivation, and academic achievement.

• Create a student life environment that fosters leadership development, accountability, professional work standards, and ethical decision-making.

• Provide a living environment conducive to academic success, at a reasonable price, with activities conducive to the personal and social growth of residents.

• Enable individual success through academic and non-academic advising, referrals to community resources, student life programming, and educational accommodations for students with documented disabilities.

• Care for the holistic needs of students.

• 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 Holding Company, LLC, a Delaware limited liability company whose principal offices are located at 143 South Main Street, Salt Lake City, Utah, 84111. Neumont Holding Company, LLC officers include Edward H. Levine, President. Neumont University introduced its Computer Science program at its Utah campus in January 2004.

ACCREDITATION

Neumont University is a post-secondary institution accredited by the Accrediting Council for Independent Colleges and Schools (ACICS) to award Bachelor of Science degrees in Computer Science, Computer Information Systems, Software & Game Development, Web Design & Development, and Business Technology Operations Management; and Master of Science in Computer Science degrees. The ACICS 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. ACICS is located at 750 First Street, NE Suite 980, Washington, D.C. 20002; and may be contacted via www.acics.org or by phone at: (202) 336-6780.
DEFINITIONS OF ACADEMIC CREDIT AND CREDIT HOUR
Neumont University awards credits using the quarter credit system as defined by ACICS, its accrediting body and approved by the U.S. Department of Education.

The number of credit hours awarded for a Neumont course is determined by the types and lengths of activities that occur within that course: classroom lecture and direct instruction activities, outside study, reading and other assignments, laboratory or project work, in some cases, practicum or externship experience at an actual industry partner site. Ten hours of classroom lecture or direct instruction activities accompanied by 20 hours of homework are the equivalent of one credit hour. Twenty hours of laboratory or project work equals one credit hour, and thirty hours of practicum experience are the equivalent of one credit hour.

As examples of this credit hour formula, a 4 credit hour course at Neumont normally contains 32+ hours of classroom lecture and direct instruction, approximately 64 hours of outside study work, and 16 hours of laboratory or project work; a 3 credit hour course normally contains 24+ hours of classroom lecture and direct instruction, approximately 48 hours of outside study work and 12 hours of laboratory or project work. The majority of courses at Neumont contain 48 (4 credit hours) or 36 (3 credit hours) contact hours between the instructor and students. An externship or practicum course is typically a 6.5 credit hour course requiring 2+ hours of lecture and direct instruction plus 190 hours of student work with an approved Neumont University Enterprise Partner.

STUDENT COMPLAINTS AND GRIEVANCES
Generally, complaints should be directed to the Office of Student Affairs. If the Office of Student Affairs is not able to address the student’s complaint, the student may seek additional assistance from the following:

Academic concerns: Office of Academic Operations
Operational issues or concerns: Office of the President

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 146705, Salt Lake City, UT 84114-6704, (801) 530-6601.

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

NON-DISCRIMINATION POLICY
Neumont University does not discriminate on the basis of race, color, national origin, sex, sexual orientation, religion, age, marital status, veteran status, or disability, in its employment practices or the administration of its educational and admissions policies, scholarship and loan programs, or other University administered programs and activities.

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 undue hardship.

LICENSES AND APPROVALS
Neumont University is registered under the Utah Postsecondary Proprietary School Act (Title 13, Chapter 34, Utah Code). This registration 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 146705, Salt Lake City, Utah 84114-6704. (801) 530-6601.

CAMPUS LOCATION
Neumont University (Campus and Corporate office)
143 South Main Street
Salt Lake City, Utah 84111
UNDERGRADUATE PROGRAMS

JENALYN POLLUCK
U.S. ARMY
To apply for undergraduate admittance to Neumont University a potential student should submit the following documents for review by the Acceptance Committee:

- Application for Admission
- Proof of high school graduation or its equivalent or proof of undergraduate degree from an accredited institution
- 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 during all published acceptance periods. Applicants are informed of their acceptance status after all information has been received and reviewed.

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 documents and records have been received. Documents include 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.

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 the transcript 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.

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 exam).

Applicants with TOEFL scores of 550+ (213+ computer-based score, 79+ internet-based score) are 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.

Official ACT or SAT test results are recommended.

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

- 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 the Office of Admissions for the current dollar amount, and
- F-1 students are required to provide proof of additional funds for each F-2 dependent, and
- If the applicant has a sponsor, the sponsor will need to complete the affidavit of support. Scholarship awards can be applied toward the certifying amount.

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 are issued an I-20 form from Neumont University. International applicants are encouraged to visit: www.studyinthestates.dhs.gov.

TRANSFER STUDENTS

Neumont may award transfer credit from an institution accredited by an agency recognized by the U.S. Department of Education for courses that meet our evaluation criteria. Courses taken at a foreign institution are accepted on the basis of the report of a credential evaluation service. Credit is accepted only for college-level 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.
REQUIRED DEGREE COURSES
For credit by examination of course equivalency for a Neumont University required degree course, students must pass a Neumont University competency test for that specific course. Contact the Office of the Registrar for a current list of available competency tests.

TRANSFERABLE COURSES
For transfer credit for a required course, the transferring course must be comparable to the Neumont University course for content and general outcome requirements. The Office of the Registrar will review the transcript and course description in the original institution’s catalog or class syllabus for the time period the course was taken. The University may accept transfer credits to meet course requirements as long as the course is in a subject area offered at Neumont.

For information regarding the maximum number of transfer credits Neumont will award, see the Student Handbook.

ADVANCED PLACEMENT ACCEPTANCE POLICY
Neumont University may award credit for Advanced Placement (AP) examinations. For detailed information please see the Student Handbook.

MILITARY CREDIT
Programs at Neumont University are approved for veterans training. Neumont evaluates 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 officers, reserve component personnel, and separated or retired Sailors and Marines.

Only courses, training, or military experience that fulfill Neumont’s general education requirement categories are evaluated from official AARTS or SMART transcripts. Neumont follows the American Council on Education recommendations for military transfer credits.

CONCURRENT ENROLLMENT
Neumont University accepts limited concurrent college-level general education credits. Students may transfer up to nine concurrent enrollment (CE) general education credits from other accredited institutions, prior to graduating from Neumont.

Students wishing to participate in the CE program must declare their intention to do so prior to their withdrawal from Neumont. Students who are dismissed from Neumont will not have the opportunity to participate in the CE program. Failure to notify the Registrar at or prior to the time of withdrawal may void the CE option. Students typically have one calendar year, from the date of their withdrawal, to fulfill graduation requirements.

Official transcripts from the credit-granting institution are required for proof of course completion. The student bears all expenses for any courses taken at another institution.

Students are advised to verify potential credit transferability with the Registrar prior to enrollment at another institution. Decisions regarding transfer credit are made on a case-by-case basis. Previous transfer credit decisions do not guarantee future credit acceptance. Typically, CE credits include general education courses not unique to Neumont’s core curriculum that demonstrate academic rigor from accredited institutions.
INTRODUCTION
Neumont University takes pride in its unique and systematic approach to deliver a quality education. Neumont uses a problem- and project-based, competency-based, active learning, and online learning curricula to maximize the learning of each student.

Neumont offers five Bachelor of Science degrees in its undergraduate programs:
- Bachelor of Science, Computer Science
- Bachelor of Science, Computer Information Systems
- Bachelor of Science, Business Technology Operations Management
- Bachelor of Science, Software & Game Development
- Bachelor of Science, Web Design & Development

PROJECT COURSES
Neumont University believes the key to a useful and applicable degree is a team-based, hands-on experience with real software projects. In support of this, students spend a large amount of their time working in teams on pertinent, real-world development projects. These project courses, together with the core lecture courses as well as the General Education courses, provide students a rich and challenging learning experience which will result in an excellent education.

To ensure depth of instruction, Neumont will occasionally couple a lecture and project course. Coupled lecture and project courses are considered one prerequisite; a student must pass both in order to move into the next combination. Only one coupled lecture and project course may be taken per quarter without Registrar approval.

There are a variety of project environments in which students work, both internal and external. Students work on internal projects while they are learning the intricacies of specific skills associated with their discipline. Internal software projects are controlled, designed, and structured by Neumont University instructors and professors to ensure that students master the required competencies. Students participate in external Enterprise 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 and other degree-related courses.

COURSE NAMING CONVENTIONS
All courses with numbers between 100 and 299 are considered lower-level courses. Courses numbered between 300 and 499 are upper-level courses, 500-600 are masters-level courses. The following naming conventions are used to identify all the categories of courses:

- BIT Business Information Technology
- BUS Business
- CSC Computer Science
- DBT Database Technology
- ENG English
- FAC Fine Arts & Communication
- GAT Gaming Technology
- HPE Health & Physical Education
- HUM Humanities
- ITH Information Technology
- ITS Information Security
- MAT Mathematics
- MGT Management
- MOA Modeling & Analysis
- MTM Multimedia
- PRO Projects
- PSC Physical & Biological Science
- RBT Robotics
- SSC Social Science
**BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

**INTRODUCTION**

The Neumont University Bachelor of Science in Computer Science (BSCS) program distinguishes itself with an integrated, project and problem-based curriculum that focuses on the skills most valued by today’s employers. Graduates of this innovative program are motivated, entry-level software developers who are equipped for success in the corporate world. All BSCS projects and coursework are designed to provide 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 BSCS program requirements graduates will possess a Bachelor of Science in Computer Science and a portfolio of real project work.

The innovative nature of this program allows students to specialize in one or more disciplines under the computer science umbrella. Students can focus on the varying career paths that are closely tied to emerging or high demand careers in the computer science and information technology industry. Neumont University has worked closely with business and industry to develop a curriculum which will further enhance our students’ skills, portfolio, and marketability.

**PROGRAM OVERVIEW**

Students attend classes and work on projects generally between 8:00 a.m. and 6:00 p.m., Monday through Friday. The program is 10 quarters in length and requires a minimum of two-and-a-half years to complete. Many assignments are performed in groups as part of lab and project work.

**PROGRAM OBJECTIVES**

Graduates of the Bachelor of Science in Computer Science programs are expected to master the following:

- 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
- Develop applications with a variety of deployment mechanisms
- Understand software development in the context of business
- Participate in a range of software development life cycle 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
- Become effective problem solvers and critical thinkers

**GRADUATION REQUIREMENTS**

(Students enrolled in the BSCS program beginning Fall Quarter 2013)

To qualify for graduation with a Bachelor of Science in Computer Science degree, 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 courses taken at the University
- Complete a minimum of 114 credit hours in required degree courses, including projects
- Complete a minimum of 66 credit hours in required general education courses
- Abide by all University rules and regulations
- To earn credits for a course, a student must earn a passing grade.
  - For required courses, a passing grade is a ‘C’ or better. For elective courses, and for courses selected from a “choose one/two from the following” category, a passing grade is a ‘D-’ or better.
- No unresolved judicial matters
- No outstanding financial obligations to the University

Students enrolled prior to Fall 2013 should refer to the prevailing Catalog during their initial period of enrollment.
### BSCS Program Plan

| Minimum General Education Credits Required | 66 Credits |
| Minimum Computer Science Credits Required | 114 Credits |
| Total Required for BS in Computer Science | 180 Credits |

### General Education

**66 Credits**

**Foundational Courses**
- BUS101 Personal Finance (3 credits)
- HUM105 The Art & Science of Success (2 credits)
- FAC105 Leadership & Problem-Solving (3 credits)
- FAC299 Marketing Your Personal Brand (2 credits)

**Arts and Humanities**
- HUM150 Logic (3 credits)
- FAC101 Art Appreciation (2 credits)

**Fine Arts and Communication**
- FAC120 Spoken Communications (3 credits)
- FAC125 Collaborative & Interpersonal Communications (3 credits)

**English**
- ENG110 Introduction to English Composition (4 credits)
- ENG210 Persuasive and Professional Writing (4 credits)
- ENG310 Creative Writing (4 credits)

**Mathematics**
- MAT105 College Algebra (3 credits)
- MAT110 Sets, Probability, & Number Systems (3 credits)
- MAT250 Calculus (3 credits)
  - And choose one of the following:
    - MAT125 Geometry (3 credits)
    - MAT150 Trigonometry (3 credits)
    - MAT260 Statistics (3 credits)
    - MAT305 Problem Solving (3 credits)

**Health and Physical Education**
- HPE160 Personal Fitness (2 credits)
- HPE170 Healthy Living (2 credits)

**Physical and Biological Science**
- CHOOSE 4 CREDITS
  - PSC115 Introduction to Biology (2 credits)
  - PSC201 Astronomy (2 credits)
  - PSC210 Environmental Studies (2 credits)
  - PSC225 Studies in Applied Physics (4 credits)
  - PSC230 Introduction to Chemistry (2 credits)

**Social and Behavioral Science**
- CHOOSE 15 CREDITS
  - HUM205 Ethics (3 credits)
  - SSC250 Human Relations & Personality Development (3 credits)
  - SSC271 American Government (3 credits)

### Computer Science Courses

**114 Credits**

**Foundational Core Courses**
- CSC110 Introduction to Computer Science (4 credits)
- CSC115 Surveys in Technology (2 credits)
- CSC150 Object Oriented Programming & Design (6 credits)
- CSC210 Introduction to Web Presentation and Development (2 credits)

**Required Computer Science Courses**
- CHOOSE 78 CREDITS
  - CSC130 Principles of Software Engineering (4 credits)
  - DBT130 Databases I (4 credits)
  - DBT230 Databases II (4 credits)
  - MOA140 Information Modeling (4 credits)
  - DBT330 Persistence Applications (2 credits)
  - CSC370 Process Modeling (3 credits)
  - CSC360 Software Design Principles (3 credits)
  - CSC250 Algorithms & Data Structures I (4 credits)
  - CSC252 Algorithms & Data Structures II (4 credits)
  - CSC230 Computational Theory (3 credits)
  - MAT210 Linear Algebra (3 credits)
  - CSC330 Programming Languages (3 credits)
  - CSC340 Computer Architecture (3 credits)
  - CSC380 Distributed Systems (3 credits)
  - CSC390 Operating Systems (3 credits)
  - CSC160 Application Development (4 credits)
  - PRO160 Application Development Lab (2 credits)
  - CSC180 Open Source Platforms Development (4 credits)
  - PRO180 Open Source Platforms Development Lab (2 credits)
  - CSC260 Dynamic Web Programming (4 credits)
  - PRO260 Dynamic Web Programming Lab (2 credits)
  - CSC280 Developing Scalable Web Applications (4 credits)
  - PRO280 Developing Scalable Web Applications Lab (2 credits)
  - CSC460 Industry Trends in Software Development (4 credits)

**Required Project Courses**
- 4 CREDITS
  - PRO390 Capstone Project (4 credits)

**Enterprise Projects**
- 18 CREDITS
  - CHOOSE 3 CREDITS
  - PRO490 Enterprise Projects I (6 credits)
  - PRO491 Enterprise Projects II (6 credits)
  - PRO492 Enterprise Projects III (6 credits)

### Total Program Credits

**180 Credits**
INTRODUCTION
The Bachelor of Science in Computer Information Systems (BSIS) program is designed to prepare students to manage technology systems in business. In this program students will learn to design, build and maintain business critical information systems. The program covers network infrastructure design and support, project management, e-commerce and business solutions, physical and virtual security, and systems integration.

Students majoring in BSIS can choose electives in programming, business practices, or project management. In addition, they will complete two Enterprise Project courses, which provide them with a portfolio of real experience.

BSIS graduates are prepared for positions as systems analysts, network administrators, project managers, systems administrators, technical support, computer technicians, and more. Long-term career opportunities include IT director, chief information officer (CIO), and chief technology officer (CTO).

PROGRAM OVERVIEW
Students attend classes and work on projects generally between 8:00 a.m. and 6:00pm, Monday through Friday. The program is 10 quarters in length and requires a minimum of two-and-a-half years to complete. Many assignments are performed in groups as part of lab and project work.

PROGRAM OBJECTIVES
Graduates of the BSIS program are expected to master the following:

- Understand the critical nature of effective communications, both verbal and written, and increase their capacity to effectively communicate
- Identify business technology needs and develop the ability to implement supporting network infrastructure plans
- Develop and implement appropriate security measures for physical and virtual servers and networks
- Administer networks and integrated systems implementing a variety of networking technologies and various operating systems
- Properly plan, design, implement and supervise technical and non-technical projects
- Make appropriate business related decisions regarding the use of electronic commerce systems, cloud computing, mobile devices and other emerging technologies

GRADUATION REQUIREMENTS
(Students enrolled in the BSIS program beginning Fall Quarter 2013)
To qualify for graduation with a Bachelor of Science in Computer Information Systems degree, 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 courses taken at the University
- Complete a minimum of 114 credit hours in required degree courses, including projects and a minimum of 18 credits in the available elective tier
- Complete a minimum of 66 credit hours in required general education courses
- Abide by all University rules and regulations
- Earn passing grade to be awarded credits for a course
- For required courses, a passing grade is a ‘C’ or better. For elective courses, and for courses selected from a “choose one/two from the following” category, a passing grade is a ‘D-’ or better.
- No unresolved judicial matters
- No outstanding financial obligations to the University

Students enrolled prior to Fall 2013 should refer to the prevailing Catalog during their initial period of enrollment.
BSIS PROGRAM PLAN

MINIMUM GENERAL EDUCATION CREDITS REQUIRED 66 CREDITS

MINIMUM INFORMATION SYSTEMS CREDITS REQUIRED 114 CREDITS

TOTAL REQUIRED FOR BS IN INFORMATION SYSTEMS 180 CREDITS

GENERAL EDUCATION 66 CREDITS

FOUNDATIONAL COURSES 10 CREDITS
BUS101 Personal Finance 3 credits
HUM105 The Art & Science of Success 2 credits
FAC105 Leadership & Problem-Solving 3 credits
FAC299 Marketing Your Personal Brand 2 credits

ARTS AND HUMANITIES 5 CREDITS
HUM150 Logic 3 credits
FAC101 Art Appreciation 2 credits

FINE ARTS AND COMMUNICATION 6 CREDITS
FAC120 Spoken Communications 3 credits
FAC125 Collaborative & Interpersonal Communications 3 credits

ENGLISH 12 CREDITS
ENG110 Introduction to English Composition 4 credits
ENG210 Persuasive & Professional Writing 4 credits
ENG310 Creative Writing 4 credits

MATHEMATICS 12 CREDITS
MAT105 College Algebra 3 credits
MAT110 Sets, Probability, & Number Systems 3 credits

Choose two of the following
MAT125 Geometry 3 credits
MAT150 Trigonometry 3 credits
MAT210 Linear Algebra 3 credits
MAT250 Calculus 3 credits
MAT260 Statistics 3 credits
MAT305 Problem Solving 3 credits

HEALTH AND PHYSICAL EDUCATION CHOOSE 2 CREDITS
HPE160 Personal Fitness 2 credits
HPE170 Healthy Living 2 credits

PHYSICAL AND BIOLOGICAL SCIENCE CHOOSE 4 CREDITS
PSC115 Introduction to Biology 2 credits
PSC201 Astronomy 2 credits
PSC210 Environmental Studies 2 credits
PSC225 Studies in Applied Physics 4 credits
PSC230 Introduction to Chemistry 2 credits

SOCIAL AND BEHAVIORAL SCIENCE 15 CREDITS
HUM205 Ethics 3 credits
SSC250 Human Relations & Personality Development 3 credits
SSC271 American Government 3 credits

And choose two of the following
SSC310 American Legal System 3 credits
SSC320 Group Dynamics 3 credits
SSC350 Intellectual Property 3 credits

INFORMATION SYSTEMS COURSES 114 CREDITS

FOUNDATIONAL CORE COURSES 14 CREDITS
CSC110 Introduction to Computer Science 4 credits
CSC115 Surveys in Technology 2 credits
CSC150 Object Oriented Programming & Design 6 credits
CSC210 Introduction to Web Presentation and Development 2 credits

REQUIRED INFORMATION SYSTEMS COURSES 52 CREDITS
CSC105 Using Modern Operating Systems 2 credits
BIT120 Business & Information Systems Practices 4 credits
BIT140 Electronic Commerce 2 credits
BIT150 Applied Mobile Computing 2 credits
ITH210 Networking 4 credits

Choose two of the following
BIT220 Server Administration I: Windows 3 credits
BIT224 Server Administration II: Linux 3 credits
BIT228 Server Administration III: Web 3 credits
BIT280 Computer Hardware, Peripherals, & Support 4 credits
BIT320 Shell and Administrative Scripting 2 credits
BIT350 Virtualization Technology & Administration 2 credits
BIT360 Applied Systems Operations and Disaster Recovery 3 credits

Choose two of the following
ITS320 Systems, Network, & Physical Security 3 credits
BIT430 Decision Support Systems 2 credits
ITS380 Auditing, Governance, & Compliance 3 credits
ITS390 Hacking, Forensics, & Countermeasures 3 credits
DBT110 Databases I 4 credits

MGT300 Fundamentals of Project Management 3 credits

REQUIRED PROJECT COURSES 18 CREDITS
BIT330 Networks & Telecomms in Business 4 credits
PRO330 Networks & Telecomms in Business Project 2 credits
BIT380 Integrated Business Solutions 4 credits
BIT381 Integrated Business Solutions Project 2 credits
BIT460 Modern Data Center, Infrastructure, & Cloud Computing Design & Services 4 credits

Choose two of the following
BIT461 Modern Data Center, Infrastructure, & Cloud Computing Design & Services Project 2 credits

ENTERPRISE PROJECTS 12 CREDITS
PRO493 Enterprise Projects CIS I 6 credits
PRO494 Enterprise Projects CIS II 6 credits

CONTINUED ON THE NEXT PAGE
BSIS PROGRAM PLAN CONTINUED

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC240</td>
<td>Business Web Development</td>
<td>4</td>
</tr>
<tr>
<td>PRO240</td>
<td>Business Web Development Project</td>
<td>2</td>
</tr>
<tr>
<td>BUS130</td>
<td>Financial &amp; Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>PRO130</td>
<td>Practice in Accounting Project</td>
<td>2</td>
</tr>
<tr>
<td>CSC160</td>
<td>Application Development</td>
<td>4</td>
</tr>
<tr>
<td>PRO160</td>
<td>Application Development Lab</td>
<td>2</td>
</tr>
<tr>
<td>CSC180</td>
<td>Open Source Platforms Development</td>
<td>4</td>
</tr>
<tr>
<td>PRO180</td>
<td>Open Source Platforms Development Lab</td>
<td>2</td>
</tr>
<tr>
<td>CSC260</td>
<td>Dynamic Web Programming</td>
<td>4</td>
</tr>
<tr>
<td>PRO260</td>
<td>Dynamic Web Programming Lab</td>
<td>2</td>
</tr>
<tr>
<td>CSC280</td>
<td>Developing Scalable Web Applications</td>
<td>4</td>
</tr>
<tr>
<td>PRO280</td>
<td>Scalable Web Applications Lab</td>
<td>2</td>
</tr>
<tr>
<td>MGT470</td>
<td>Practices in Project Management</td>
<td>4</td>
</tr>
<tr>
<td>PRO470</td>
<td>Practices in Project Management Project</td>
<td>2</td>
</tr>
</tbody>
</table>

TOTAL PROGRAM CREDITS 180 CREDITS
INTRODUCTION
The Neumont University Bachelor of Science in Software and Game Development (BSGD) immerses students into the highly technical fields of software and video game development. This program combines problem- and project-based learning concepts with real world software practices preparing students to be an immediate asset to future employers.

Students develop key soft skills while building their software development foundation. Students are exposed to different areas of software and game development including project management and planning, game play design, UI design, best practices, software methodologies, test-driven development and other Q/A techniques, asset creation and tracking, and overall game and software production. Students then delve into more technical areas such as game engines, physics, mobile and console development, and computer graphics.

Graduates of the BSGD program will understand the intricacies of game programming and production, and gain a solid foundation in business software development. Graduates are able to contribute to everyday business software using their understanding of databases, web and desktop programming.

All areas of the program give students practice with gathering requirements, working in teams, and meeting tight deadlines. Students communicate on many technical and non-technical levels to produce solutions that satisfy industry demands.

PROGRAM OVERVIEW
Students attend classes and work on projects generally between 8:00 a.m. and 6:00 p.m., Monday through Friday. The program is 12 quarters in length and requires a minimum of three years to complete. During a student’s progression, he or she will spend a great deal of time collaborating with others in group settings.

PROGRAM OBJECTIVES
Graduates of the Bachelor of Science in Software and Game Development are expected to master the following:

- Increase knowledge and understanding of self, the dynamics of group and team interactions, and their impact upon productivity, efficiency, and effectiveness
- Recognize the skills and techniques needed for problem solving and decision making
- Team interaction, accountability, and the importance of meeting deadlines
- Communicate effectively both orally and in writing
- Game and software production lifecycles
- Game design, game mechanics and game rules
- Asset production and integration
- Computer graphics using both game libraries and raw graphics
- Limitations and benefits of various game hardware such as mobile devices, consoles, and PCs
- Mimick real object interactions via raw physics and engines
- Artificial intelligence in games and business applications
- Serious game design to simulate real-world experiences as educational and training tools
- Portfolio generation and presentation to potential customers and employers
- Business application development lifecycle and methodologies

GRADUATION REQUIREMENTS
(Students enrolled in the BSGD program beginning Fall Quarter 2013)
To qualify for graduation with a Bachelor of Science in Software and Game Development, 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 courses taken at the University
- Complete a minimum of 114 credit hours in required degree courses, including projects
- Complete a minimum of 66 credit hours in required general education courses
- Abide by all University rules and regulations
- To earn credits for a course, a student must earn a passing grade.
- For required courses, a passing grade is a ‘C’ or better. For elective courses, and for courses selected from a “choose one/two from the following” category, a passing grade is a ‘D-’ or better.
- No unresolved judicial matters
- No outstanding financial obligations to the University

Students enrolled prior to Fall 2013 should refer to the prevailing Catalog during their initial period of enrollment.
BSGD PROGRAM PLAN

MINIMUM GENERAL EDUCATION CREDITS REQUIRED 66 CREDITS
MINIMUM SOFTWARE AND GAME DEVELOPMENT CREDITS REQUIRED 114 CREDITS
TOTAL REQUIRED FOR BS IN SOFTWARE AND GAME DEVELOPMENT 180 CREDITS

GENERAL EDUCATION

FOUNDATIONAL COURSES 10 CREDITS
BUS101 Personal Finance 3 credits
HUM105 The Art & Science of Success 2 credits
FAC105 Leadership & Problem-Solving 3 credits
FAC299 Marketing Your Personal Brand 2 credits

ARTS AND HUMANITIES 5 CREDITS
HUM150 Logic 3 credits
FAC101 Art Appreciation 2 credits

FINE ARTS AND COMMUNICATION 6 CREDITS
FAC120 Spoken Communications 3 credits
FAC125 Collaborative and Interpersonal Communications 3 credits

ENGLISH 12 CREDITS
ENG110 Introduction to English Composition 4 credits
ENG210 Persuasive & Professional Writing 4 credits
ENG310 Creative Writing 4 credits

HEALTH AND PHYSICAL EDUCATION

HPE160 Personal Fitness 2 credits
HPE170 Healthy Living 2 credits

MATHEMATICS 12 CREDITS
MAT105 College Algebra 3 credits
MAT110 Sets, Probability, & Number Systems 3 credits
MAT250 Calculus 3 credits
MAT125 Geometry 3 credits
MAT150 Trigonometry 3 credits
MAT210 Linear Algebra 3 credits
MAT260 Statistics 3 credits
MAT305 Problem Solving 3 credits

PHYSICAL AND BIOLOGICAL SCIENCE 4 CREDITS
PSC225 Studies in Applied Physics 4 credits

SOFTWARE AND GAME DEVELOPMENT COURSES

FOUNDATION CORE COURSES 14 CREDITS
CSC110 Introduction to Computer Science 6 credits
CSC115 Surveys in Technology 2 credits
CSC150 Object Oriented Programming & Design 6 credits
CSC210 Introduction to Web Presentation & Development 2 credits

REQUIRED SOFTWARE AND GAME DEVELOPMENT COURSES 71 CREDITS
CSC130 Principles of Software Engineering 4 credits
CSC190 C++ Programming 4 credits
CSC250 Algorithms & Data Structures I 4 credits
CSC252 Algorithms & Data Structures II 4 credits
DBT130 Databases I 4 credits
GAT120 Topics in Game Development 2 credits
GAT180 Mobile Game Development 3 credits
GAT280 Rich Animation 3 credits
GAT310 Advanced Game Physics 3 credits
GAT350 Computer Graphics 3 credits
GAT420 Artificial Intelligence 3 credits
MTM230 Digital Art I 3 credits
MTM330 Digital Art II 3 credits
CSC160 Application Development 4 credits
PR0160 Application Development Lab 2 credits
CSC180 Open Source Platforms Development 4 credits
PR0180 Open Source Platforms Development Lab 2 credits
CSC260 Dynamic Web Programming 4 credits
PR0260 Dynamic Web Programming Lab 2 credits
CSC280 Developing Scalable Web Applications 4 credits
PR0280 Developing Scalable Web Applications Lab 2 credits
GAT160 Game Libraries 4 credits

REQUIRED PROJECT COURSES 11 CREDITS
GAT360 Game Programming & Production 4 credits
GAT380 Game Engine Implementation & Development 3 credits
PR0390 Capstone Project 4 credits

ENTERPRISE PROJECTS 18 CREDITS
PR0490 Enterprise Projects I 6 credits
PR0491 Enterprise Projects II 6 credits
PR0492 Enterprise Projects III 6 credits

TOTAL PROGRAM CREDITS 180 CREDITS
INTRODUCTION
The Neumont University Bachelor of Science in Business Technology Operations Management (BSTM) program focuses on educating students by utilizing problem- and project-based learning curricula. Graduates of this program will possess a diverse skill set that includes business acumen coupled with technology skills and the ability to think critically. The BSTM curriculum is designed to build professional skills, including writing, communicating, leadership, and organization. Neumont University BSTM graduates are prepared to make a significant contribution as much needed business technology leaders.

Upon completing the BSTM degree program requirements, graduates will possess a Bachelor of Science in Business Technology Operations Management degree and a portfolio of real-world project work.

PROGRAM OVERVIEW
Students attend classes and work on projects generally between 8:00 a.m. and 6:00 p.m., Monday through Friday. The program is 10 quarters in length and requires a minimum of two-and-a-half years to complete. Many assignments are performed in groups as part of lab and project work.

PROGRAM OBJECTIVES
Graduates of the Bachelor of Science in Business Technology Operations Management are expected to master the following:
• Planning, organization, leadership and management within an organizational setting
• Increase knowledge and understanding of self, the dynamics of group and team interactions, and their impact upon productivity, efficiency, and effectiveness
• Recognize the skills and techniques needed for problem solving and decision making
• Communicate effectively both orally and in writing
• Understand basic accounting methods and their business applications
• Utilize financial analysis within a business environment
• Understand basic statistical analysis and its application in the business environment
• Apply the strategic management process to an analysis of the current business environment, identify and forecast trends, and make recommendations on preferred courses of action
• Integrate and synthesize the knowledge and competencies gained from technical and managerial courses
• Develop software using modern languages and integrated development environments
• Understand the relationship between business operations and IT operations
• Understand the infrastructure of a business IT system
• Integrate disparate areas of technical and non-technical expertise through real-world projects
• Apply management techniques to project management situations
• Analyze and model a business and/or system within a business environment

GRADUATION REQUIREMENTS
(Students enrolled in the BSTM program beginning Spring Quarter 2013)
To qualify for graduation with a Bachelor of Science in Business Technology Operations Management, 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 a minimum of 114 credit hours in required degree courses, including projects
• Complete a minimum of 66 credit hours in required General Education courses
• Abide by all University rules and regulations
• To earn credits for a course, a student must earn a passing grade.
• For required courses, a passing grade is a ‘C’ or better. For elective courses, and for courses selected from a “choose one/two from the following” category, a passing grade is a ‘D-’ or better.
• No unresolved judicial matters
• No outstanding financial obligations to the University

Students enrolled prior to Fall 2013 should refer to the prevailing Catalog during their initial period of enrollment.
## BSTM Program Plan

### Minimum General Education Credits Required: 66 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS101</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>HUM105</td>
<td>The Art &amp; Science of Success</td>
<td>2</td>
</tr>
<tr>
<td>FAC105</td>
<td>Leadership &amp; Problem-Solving</td>
<td>3</td>
</tr>
<tr>
<td>FAC299</td>
<td>Marketing Your Personal Brand</td>
<td>2</td>
</tr>
</tbody>
</table>

### Minimum Tech Management Credits Required: 114 Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS130</td>
<td>Financial &amp; Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS230</td>
<td>Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS345</td>
<td>Business Analysis, Operation, &amp; Organization Planning</td>
<td>4</td>
</tr>
<tr>
<td>BUS350</td>
<td>Business Analysis, Operation, &amp; Organization Project</td>
<td>2</td>
</tr>
</tbody>
</table>

### Total Required for BS in Technology Management: 180 Credits

### General Education: 66 Credits

**Foundation Courses:**
- BUS101 Personal Finance: 3 credits
- HUM105 The Art & Science of Success: 2 credits
- FAC105 Leadership & Problem-Solving: 3 credits
- FAC299 Marketing Your Personal Brand: 2 credits

**Arts and Humanities:**
- HUM150 Logic: 3 credits
- FAC101 Art Appreciation: 2 credits

**Fine Arts and Communications:**
- FAC120 Spoken Communications: 3 credits
- FAC125 Collaborative & Interpersonal Communications: 3 credits

**English:**
- ENG110 Introduction to English Composition: 4 credits
- ENG210 Persuasive & Professional Writing: 4 credits
- ENG310 Creative Writing: 4 credits

**Health and Physical Education:**
- HPE160 Personal Fitness: 2 credits
- HPE170 Healthy Living: 2 credits

**Mathematics:**
- MAT105 College Algebra: 3 credits
- MAT110 Sets, Probability, & Number Systems: 3 credits
- MAT125 Geometry: 3 credits
- MAT150 Trigonometry: 3 credits
- MAT210 Linear Algebra: 3 credits
- MAT250 Calculus: 3 credits
- MAT305 Problem Solving: 3 credits

**Physical and Biological Science:**
- PSC115 Introduction to Biology: 2 credits
- PSC201 Astronomy: 2 credits
- PSC210 Environmental Studies: 2 credits
- PSC225 Studies in Applied Physics: 4 credits
- PSC230 Introduction to Chemistry: 2 credits

**Social and Behavioral Science:**
- HUM205 Ethics: 3 credits
- SSC250 Human Relations & Personality Development: 3 credits
- SSC271 American Government: 3 credits
- SSC310 American Legal System: 3 credits
- SSC320 Group Dynamics: 3 credits
- SSC350 Intellectual Property: 3 credits

**Technology Management Courses: 114 Credits**

**Foundation Core Courses:**
- CSC110 Introduction to Computer Science: 4 credits
- CSC115 Surveys in Technology: 2 credits
- CSC150 Object Oriented Programming & Design: 6 credits
- CSC210 Introduction to Web Presentation & Development: 2 credits

**Required Technology Management Courses:**
- BUS130 Financial & Managerial Accounting: 4 credits
- PRO130 Practice in Accounting Project: 2 credits
- BUS230 Marketing Management: 3 credits
- BUS345 Business Analysis, Operation, & Organization Planning: 4 credits
- PRO345 Business Analysis, Operation, & Organization Project: 2 credits
- BUS350 Management, Organizational Behavior, & Leadership Practices: 4 credits
- MGT470 Practices in Project Management: 4 credits
- PRO470 Project Management Project: 2 credits
- BIT120 Business & Information Systems Practices: 4 credits
- CSC105 Using Modern Operating Systems: 2 credits
- ITH210 Networking: 4 credits

**Required Project Courses:**
- CSC240 Business Web Development: 6 credits
- PRO240 Business Web Development Project: 2 credits
- BIT330 Networks & Telecommunications in Business: 6 credits
- PRO330 Networking and Telecomm. In Business Project: 2 credits
- BIT370 System Analysis & Business Modeling: 4 credits
- PRO370 System Analysis & Business Modeling Project: 4 credits
- ITS320 Systems, Network, & Physical Security: 3 credits
- ITS380 Auditing, Governance, & Compliance: 3 credits
- CSC440 Testing and Quality Assurance: 4 credits
- DBT130 Databases I: 4 credits

**Enterprise Projects:**
- PRO490 Enterprise Projects I: 6 credits
- PRO491 Enterprise Projects II: 6 credits

**Total Program Credits: 180 Credits**
BACHELOR OF SCIENCE IN WEB DESIGN AND DEVELOPMENT

INTRODUCTION
As change, innovation, and tremendous growth continue to transform the Internet, our lives become increasingly integrated in this crucial medium. Neumont University’s Bachelor of Science in Web Design and Development (BSWD) program focuses on the tools, technologies, and techniques needed to understand the language of web design and how to take that knowledge into a professional career creating a variety of interactive web sites, experiences, and applications.

The BSWD degree emphasizes both graphic design and development. Students learn the necessary core skills to survive, adapt, and thrive in the workplace as a hybrid designer/developer. In addition, the degree builds professional skills, including: writing, communicating, leadership, and organization. Students develop their skills using Neumont University’s problem- and project-based learning curricula.

Neumont’s BSWD program prepares a student for that first step into the interactive design industry -- whether a student wants to pursue a role at a web development firm, an advertising agency, a media company, a large corporation, or launch his or her own entrepreneurial venture. Graduates of this degree program are armed with the same tools used by professional developers to increase the usefulness of the Internet for billions of users across the globe.

Upon completing the BSWD requirements, graduates will possess a Bachelor of Science in Web Design and Development as well as a vast portfolio of real-world projects.

PROGRAM OVERVIEW
Students attend classes and work on projects generally between 8:00 a.m. and 6:00 p.m., Monday through Friday. The program is 10 quarters in length and requires a minimum of two-and-a-half years to complete. During a student’s progression, he or she will spend a great deal of time collaborating with others in group settings.

PROGRAM OBJECTIVES
Graduates of the BSWD are expected to master the following:

- Increase knowledge and understanding of self, the dynamics of group and team interactions, and their impact upon productivity, efficiency, and effectiveness
- Recognize the skills and techniques needed for problem solving and decision making
- Communicate effectively both orally and in writing
- Develop software using modern languages and integrated development environments
- Integrate disparate areas of technical and non-technical expertise through real-world projects
- Understand business fundamentals and how they relate to the Web
- Learn concept, design, code, and deploy standards-based content for a variety of formats including desktop, handhelds, and other emerging media environments
- Develop a strong foundation of artistic graphic design skills
- Be able to use and develop in a broad range of technologies including: XHTML, CSS, XML, ActionScript, JavaScript, Adobe Creative Suite, and more
- Become self aware of one’s own style, artistic direction, and creative abilities

GRADUATION REQUIREMENTS
(Students enrolled in the BSWD program beginning Fall Quarter 2013)
To qualify for graduation with a Bachelor of Science in Web Design and Development, 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 a minimum of 114 credit hours in required degree courses, including projects
- Complete a minimum of 66 credit hours in required General Education courses
- Abide by all University rules and regulations
- To earn credits for a course, a student must earn a passing grade.
  - For required courses, a passing grade is a ‘C’ or better. For elective courses, and for courses selected from a “choose one/two from the following” category, a passing grade is a ‘D-’ or better.
  - No unresolved judicial matters
  - No outstanding financial obligations to the University

Students enrolled prior to Fall 2013 should refer to the prevailing Catalog during their initial period of enrollment.
BSWD PROGRAM PLAN

MINIMUM GENERAL EDUCATION CREDITS REQUIRED 66 CREDITS

MINIMUM WEB DEVELOPMENT CREDITS REQUIRED 114 CREDITS

TOTAL REQUIRED FOR BS IN WEB DESIGN AND DEVELOPMENT 180 CREDITS

GENERAL EDUCATION 66 CREDITS

FOUNDATIONAL COURSES 10 CREDITS
BUS101 Personal Finance 3 credits
HUM105 The Art & Science of Success 2 credits
FAC105 Leadership & Problem-Solving 3 credits
FAC299 Marketing Your Personal Brand 2 credits

ARTS AND HUMANITIES 5 CREDITS
HUM150 Logic 3 credits
FAC101 Art Appreciation 2 credits

FINE ARTS AND COMMUNICATION 6 CREDITS
FAC120 Spoken Communications 3 credits
FAC125 Collaborative & Interpersonal Communications 3 credits

ENGLISH 12 CREDITS
ENG110 Introduction to English Composition 4 credits
ENG210 Persuasive & Professional Writing 4 credits
ENG310 Creative Writing 4 credits

HEALTH AND PHYSICAL EDUCATION CHOOSE 2 CREDITS
HPE160 Personal Fitness 2 credits
HPE170 Healthy Living 2 credits

MATHEMATICS 12 CREDITS
MAT105 College Algebra 3 credits
MAT110 Sets, Probability, & Number Systems 3 credits
MAT125 Geometry 3 credits
MAT150 Trigonometry 3 credits
MAT210 Linear Algebra 3 credits
MAT250 Calculus 3 credits
MAT260 Statistics 3 credits
MAT305 Problem Solving 3 credits
And choose two of the following

PHYSICAL AND BIOLOGICAL SCIENCE CHOOSE 4 CREDITS
PSC115 Introduction to Biology 2 credits
PSC201 Astronomy 2 credits
PSC210 Environmental Studies 2 credits
PSC225 Studies in Applied Physics 4 credits
PSC230 Introduction to Chemistry 2 credits

SOCIAL AND BEHAVIORAL SCIENCE 15 CREDITS
HUM205 Ethics 3 credits
SSC250 Human Relations & Personality Development 3 credits
SSC271 American Government 3 credits
And choose two of the following
SSC310 American Legal System 3 credits
SSC320 Group Dynamics 3 credits
SSC350 Intellectual Property 3 credits

WEB DESIGN AND DEVELOPMENT COURSES 114 CREDITS

FOUNDATIONAL CORE COURSES 14 CREDITS
CSC110 Introduction to Computer Science 4 credits
CSC115 Surveys in Technology 2 credits
CSC150 Object Oriented Programming & Design 6 credits
CSC210 Introduction to Web Presentation & Development 2 credits

REQUIRED WEB DESIGN & DEVELOPMENT COURSES 58 CREDITS
BIT140 Electronic Commerce 2 credits
CSC316 Website Design 4 credits
CSC325 Human Computer Interface Design 4 credits
MTM160 Graphic Design Tools 4 credits
MTM165 Graphic Design Projects 2 credits
MTM260 Media Design Tools 3 credits
MTM265 Media Design Projects 3 credits
MTM282 Interactive Web Development 4 credits
MTM316 Rich Internet Applications 4 credits
MTM320 Advanced Web Scripting 4 credits
MTM370 Front-End Implementations 4 credits
MTM450 Web Game Development 4 credits
MTM470 Back-End Implementation 4 credits
CSC260 Dynamic Web Programming 4 credits
PR0260 Dynamic Web Lab 2 credits
CSC280 Developing Scalable Web Applications 4 credits
PR0280 Scalable Web Applications Lab 2 credits

REQUIRED PROJECT COURSES 24 CREDITS
CSC130 Principles of Software Engineering 4 credits
DBT130 Databases I 6 credits
CSC160 Application Development 4 credits
PR0160 Application Development Lab 2 credits
CSC180 Open Source Platforms Development 4 credits
PR0180 Open Source Platforms Development Lab 2 credits
PR0390 Capstone Project 4 credits

ENTERPRISE PROJECTS 18 CREDITS
PR0490 Enterprise Projects I 6 credits
PR0491 Enterprise Projects II 6 credits
PR0492 Enterprise Projects III 6 credits

TOTAL PROGRAM CREDITS 180 CREDITS
## Business Information Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIT120</td>
<td>Business and Information Systems Practices</td>
<td>4</td>
</tr>
<tr>
<td>BIT140</td>
<td>Electronic Commerce</td>
<td>2</td>
</tr>
<tr>
<td>BIT150</td>
<td>Applied Mobile Computing</td>
<td>2</td>
</tr>
<tr>
<td>BIT220</td>
<td>Server Administration I: Windows</td>
<td>3</td>
</tr>
<tr>
<td>BIT224</td>
<td>Server Administration II: Linux</td>
<td>3</td>
</tr>
<tr>
<td>BIT228</td>
<td>Server Administration III: Web</td>
<td>3</td>
</tr>
<tr>
<td>BIT280</td>
<td>Computer Hardware, Peripherals, &amp; Support</td>
<td>4</td>
</tr>
<tr>
<td>BIT320</td>
<td>Shell &amp; Administrative Scripting</td>
<td>2</td>
</tr>
<tr>
<td>BIT330</td>
<td>Networks &amp; Telecommunications in Business</td>
<td>4</td>
</tr>
<tr>
<td>BIT350</td>
<td>Virtualization Technology &amp; Administration</td>
<td>2</td>
</tr>
<tr>
<td>BIT360</td>
<td>Applied Systems Operations &amp; Disaster Recovery</td>
<td>3</td>
</tr>
<tr>
<td>BIT370</td>
<td>System Analysis &amp; Business Modeling</td>
<td>4</td>
</tr>
<tr>
<td>BIT380</td>
<td>Integrated Business Solutions</td>
<td>4</td>
</tr>
<tr>
<td>BIT381</td>
<td>Integrated Business Solutions Project</td>
<td>2</td>
</tr>
<tr>
<td>BIT430</td>
<td>Decision Support Systems</td>
<td>2</td>
</tr>
<tr>
<td>BIT460</td>
<td>Modern Data Center, Infrastructure, &amp; Cloud Computing</td>
<td>4</td>
</tr>
<tr>
<td>BIT461</td>
<td>Modern Data Center, Infrastructure, &amp; Cloud Computing</td>
<td>2</td>
</tr>
</tbody>
</table>

## Business

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS101</td>
<td>Personal Finance</td>
<td>3</td>
</tr>
<tr>
<td>BUS130</td>
<td>Financial &amp; Managerial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BUS201</td>
<td>Introduction to Economics</td>
<td>4</td>
</tr>
<tr>
<td>BUS220</td>
<td>Marketing Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS230</td>
<td>Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>BUS290</td>
<td>Business Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BUS320</td>
<td>Persuasive Communications</td>
<td>3</td>
</tr>
<tr>
<td>BUS325</td>
<td>Money, Finance, &amp; Fundraising</td>
<td>4</td>
</tr>
<tr>
<td>BUS330</td>
<td>Strategic Planning</td>
<td>3</td>
</tr>
<tr>
<td>BUS345</td>
<td>Business Analysis, Operation, &amp; Organizational Planning</td>
<td>4</td>
</tr>
<tr>
<td>BUS350</td>
<td>Management, Organizational Behavior, &amp; Leadership Practices</td>
<td>4</td>
</tr>
<tr>
<td>BUS355</td>
<td>Applied Business Systems &amp; Practices</td>
<td>4</td>
</tr>
<tr>
<td>BUS445</td>
<td>International Business Practices</td>
<td>3</td>
</tr>
</tbody>
</table>

## Computer Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSC105</td>
<td>Using Modern Operating Systems</td>
<td>2</td>
</tr>
<tr>
<td>CSC115</td>
<td>Surveys in Technology</td>
<td>2</td>
</tr>
<tr>
<td>CSC110</td>
<td>Introduction to Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CSC120</td>
<td>Topics in Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CSC130</td>
<td>Principles of Software Engineering</td>
<td>4</td>
</tr>
<tr>
<td>CSC150</td>
<td>Object Oriented Programming &amp; Design</td>
<td>6</td>
</tr>
<tr>
<td>CSC160</td>
<td>Application Development</td>
<td>4</td>
</tr>
<tr>
<td>CSC170</td>
<td>Introduction to Mobile Device Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSC180</td>
<td>Open Source Platforms Development</td>
<td>4</td>
</tr>
<tr>
<td>CSC190</td>
<td>C++ Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSC210</td>
<td>Introduction to Web Presentation &amp; Development</td>
<td>2</td>
</tr>
</tbody>
</table>

## Database Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBT130</td>
<td>Databases I</td>
<td>4</td>
</tr>
<tr>
<td>DBT230</td>
<td>Databases II</td>
<td>4</td>
</tr>
<tr>
<td>DBT260</td>
<td>Business Database Systems</td>
<td>4</td>
</tr>
<tr>
<td>DBT330</td>
<td>Persistence Applications</td>
<td>2</td>
</tr>
</tbody>
</table>

## English

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG110</td>
<td>Introduction to English Composition</td>
<td>4</td>
</tr>
<tr>
<td>ENG210</td>
<td>Persuasive &amp; Professional Writing</td>
<td>4</td>
</tr>
<tr>
<td>ENG310</td>
<td>Creative Writing</td>
<td>4</td>
</tr>
</tbody>
</table>

## Fine Arts and Communication

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAC101</td>
<td>Art Appreciation</td>
<td>2</td>
</tr>
<tr>
<td>FAC105</td>
<td>Leadership &amp; Problem-Solving</td>
<td>3</td>
</tr>
<tr>
<td>FAC120</td>
<td>Spoken Communications</td>
<td>3</td>
</tr>
<tr>
<td>FAC125</td>
<td>Collaborative &amp; Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>FAC140</td>
<td>Elements of Design Theory</td>
<td>4</td>
</tr>
<tr>
<td>FAC200</td>
<td>Theater</td>
<td>2</td>
</tr>
<tr>
<td>FAC201</td>
<td>Music Appreciation</td>
<td>2</td>
</tr>
<tr>
<td>FAC210</td>
<td>Music Composition</td>
<td>2</td>
</tr>
<tr>
<td>FAC240</td>
<td>Product Development</td>
<td>3</td>
</tr>
<tr>
<td>FAC299</td>
<td>Marketing Your Personal Brand</td>
<td>2</td>
</tr>
</tbody>
</table>

## Gaming Technology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAT120</td>
<td>Topics in Game Development</td>
<td>2</td>
</tr>
<tr>
<td>GAT160</td>
<td>Game Libraries</td>
<td>4</td>
</tr>
<tr>
<td>GAT180</td>
<td>Mobile Game Development</td>
<td>3</td>
</tr>
<tr>
<td>GAT260</td>
<td>Game Console Development</td>
<td>4</td>
</tr>
</tbody>
</table>

## Undergraduate Course Listings
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAT265</td>
<td>Game Console Lab</td>
<td>3</td>
</tr>
<tr>
<td>GAT280</td>
<td>Rich Animation</td>
<td>3</td>
</tr>
<tr>
<td>GAT310</td>
<td>Advanced Game Physics</td>
<td>3</td>
</tr>
<tr>
<td>GAT350</td>
<td>Computer Graphics</td>
<td>3</td>
</tr>
<tr>
<td>GAT360</td>
<td>Game Programming &amp; Production</td>
<td>4</td>
</tr>
<tr>
<td>GAT370</td>
<td>Game Networking</td>
<td>3</td>
</tr>
<tr>
<td>GAT380</td>
<td>Game Engine Implementation &amp; Development</td>
<td>3</td>
</tr>
<tr>
<td>GAT420</td>
<td>Artificial Intelligence</td>
<td>3</td>
</tr>
<tr>
<td>GAT430</td>
<td>Serious Games</td>
<td>4</td>
</tr>
<tr>
<td>HPE160</td>
<td>Personal Fitness</td>
<td>2</td>
</tr>
<tr>
<td>HPE170</td>
<td>Healthy Living</td>
<td>2</td>
</tr>
<tr>
<td>HPE180</td>
<td>Golf</td>
<td>2</td>
</tr>
<tr>
<td>HUM105</td>
<td>The Art &amp; Science of Success</td>
<td>2</td>
</tr>
<tr>
<td>HUM115</td>
<td>Technical Communications</td>
<td>3</td>
</tr>
<tr>
<td>HUM120</td>
<td>Modern Literature</td>
<td>3</td>
</tr>
<tr>
<td>HUM150</td>
<td>Logic</td>
<td>3</td>
</tr>
<tr>
<td>HUM205</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HUM220</td>
<td>Introduction to Philosophy</td>
<td>2</td>
</tr>
<tr>
<td>HUM240</td>
<td>Journalism</td>
<td>3</td>
</tr>
<tr>
<td>HUM310</td>
<td>Critical Thinking</td>
<td>2</td>
</tr>
<tr>
<td>HUM321</td>
<td>Technical Writing</td>
<td>3</td>
</tr>
<tr>
<td>ITH210</td>
<td>Networking</td>
<td>4</td>
</tr>
<tr>
<td>ITS320</td>
<td>Systems, Network, &amp; Physical Security</td>
<td>3</td>
</tr>
<tr>
<td>ITS380</td>
<td>Auditing, Governance, &amp; Compliance</td>
<td>3</td>
</tr>
<tr>
<td>ITS390</td>
<td>Hacking, Forensics, &amp; Countermeasures</td>
<td>3</td>
</tr>
<tr>
<td>ITS410</td>
<td>Developing Secure Code</td>
<td>4</td>
</tr>
<tr>
<td>MAT105</td>
<td>College Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MAT110</td>
<td>Sets, Probability, &amp; Number Systems</td>
<td>3</td>
</tr>
<tr>
<td>MAT125</td>
<td>Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT150</td>
<td>Trigonometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT210</td>
<td>Linear Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MAT250</td>
<td>Calculus</td>
<td>3</td>
</tr>
<tr>
<td>MAT260</td>
<td>Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT305</td>
<td>Problem Solving</td>
<td>3</td>
</tr>
<tr>
<td>MAT320</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT410</td>
<td>Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>MGT230</td>
<td>Information Storage &amp; Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT300</td>
<td>Fundamentals of Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT470</td>
<td>Practices in Project Management</td>
<td>4</td>
</tr>
<tr>
<td>MOA140</td>
<td>Information Modeling</td>
<td>4</td>
</tr>
<tr>
<td>MOA240</td>
<td>Information Modeling II</td>
<td>4</td>
</tr>
<tr>
<td>MTM110</td>
<td>Introduction to Digital Photography</td>
<td>2</td>
</tr>
<tr>
<td>MTM120</td>
<td>Introduction to Photoshop</td>
<td>3</td>
</tr>
<tr>
<td>MTM130</td>
<td>Introduction to Drawing</td>
<td>3</td>
</tr>
<tr>
<td>MTM140</td>
<td>Basics of Film</td>
<td>2</td>
</tr>
<tr>
<td>MTM160</td>
<td>Graphic Design Tools</td>
<td>4</td>
</tr>
<tr>
<td>MTM165</td>
<td>Graphic Design Projects</td>
<td>2</td>
</tr>
<tr>
<td>MTM230</td>
<td>Digital Art I</td>
<td>3</td>
</tr>
<tr>
<td>MTM240</td>
<td>Video Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>MTM260</td>
<td>Media Design Tools</td>
<td>3</td>
</tr>
<tr>
<td>MTM265</td>
<td>Media Design Projects</td>
<td>3</td>
</tr>
<tr>
<td>MTM282</td>
<td>Interactive Web Development</td>
<td>4</td>
</tr>
<tr>
<td>MTM312</td>
<td>Multimedia, Game, &amp; Entertainment Systems</td>
<td>4</td>
</tr>
<tr>
<td>MTM316</td>
<td>Rich Internet Applications</td>
<td>4</td>
</tr>
<tr>
<td>MTM320</td>
<td>Advanced Web Scripting</td>
<td>6</td>
</tr>
<tr>
<td>MTM330</td>
<td>Digital Art II</td>
<td>3</td>
</tr>
<tr>
<td>MTM350</td>
<td>Experience Design</td>
<td>2</td>
</tr>
<tr>
<td>MTM355</td>
<td>Digital Design</td>
<td>3</td>
</tr>
<tr>
<td>MTM370</td>
<td>Front-End Implementation</td>
<td>4</td>
</tr>
<tr>
<td>MTM380</td>
<td>Creative Writing &amp; Storyboarding</td>
<td>3</td>
</tr>
<tr>
<td>MTM410</td>
<td>Digital Portfolio</td>
<td>1.5</td>
</tr>
<tr>
<td>MTM412</td>
<td>Advanced Entertainment Systems</td>
<td>4</td>
</tr>
<tr>
<td>MTM450</td>
<td>Web Game Development</td>
<td>4</td>
</tr>
<tr>
<td>MTM470</td>
<td>Back-End Implementation</td>
<td>4</td>
</tr>
<tr>
<td>PSC115</td>
<td>Introduction to Biology</td>
<td>2</td>
</tr>
<tr>
<td>PSC201</td>
<td>Astronomy</td>
<td>2</td>
</tr>
<tr>
<td>PSC210</td>
<td>Environmental Studies</td>
<td>2</td>
</tr>
<tr>
<td>PSC220</td>
<td>Introduction to Physics</td>
<td>3</td>
</tr>
<tr>
<td>PSC225</td>
<td>Studies in Applied Physics</td>
<td>4</td>
</tr>
<tr>
<td>PSC230</td>
<td>Introduction to Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>PRO130</td>
<td>Practice in Accounting Project</td>
<td>2</td>
</tr>
<tr>
<td>PRO160</td>
<td>Application Development Lab</td>
<td>2</td>
</tr>
<tr>
<td>PRO180</td>
<td>Open Source Platforms Development Lab</td>
<td>2</td>
</tr>
<tr>
<td>PRO240</td>
<td>Business Web Development Project</td>
<td>2</td>
</tr>
<tr>
<td>PRO260</td>
<td>Dynamic Web Programming Lab</td>
<td>2</td>
</tr>
<tr>
<td>PRO280</td>
<td>Developing Scalable Web Applications Lab</td>
<td>2</td>
</tr>
<tr>
<td>PRO330</td>
<td>Networking &amp; Telecommunications in Business</td>
<td>2</td>
</tr>
<tr>
<td>PRO345</td>
<td>Business Analysis, Operation, &amp; Organizational Project</td>
<td>2</td>
</tr>
<tr>
<td>PRO370</td>
<td>System Analysis &amp; Business Modeling Project</td>
<td>4</td>
</tr>
<tr>
<td>PRO390</td>
<td>Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>PRO393</td>
<td>Web Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>PRO395</td>
<td>Game Capstone Project</td>
<td>4</td>
</tr>
<tr>
<td>PRO470</td>
<td>Project Management Project</td>
<td>2</td>
</tr>
<tr>
<td>PRO485</td>
<td>Game Studio I</td>
<td>6</td>
</tr>
<tr>
<td>PRO486</td>
<td>Game Studio II</td>
<td>6</td>
</tr>
<tr>
<td>PRO487</td>
<td>Game Studio III</td>
<td>6</td>
</tr>
<tr>
<td>PRO490</td>
<td>Enterprise Projects I</td>
<td>6</td>
</tr>
<tr>
<td>PRO491</td>
<td>Enterprise Projects II</td>
<td>6</td>
</tr>
<tr>
<td>PRO492</td>
<td>Enterprise Projects III</td>
<td>6</td>
</tr>
<tr>
<td>PRO493</td>
<td>Enterprise Projects CIS I</td>
<td>6</td>
</tr>
<tr>
<td>PRO494</td>
<td>Enterprise Projects CIS II</td>
<td>6</td>
</tr>
</tbody>
</table>
### ROBOTICS
- **RBT326** Intelligent Systems 4 credits

### SOCIAL SCIENCE
- **SSC240** Social Psychology 3 credits
- **SSC250** Human Relations & Personality Development 3 credits
- **SSC271** American Government 3 credits
- **SSC310** American Legal System 3 credits
- **SSC320** Group Dynamics 3 credits
- **SSC350** Intellectual Property 3 credits
UNDERGRADUATE COURSE DESCRIPTIONS

BUSINESS INFORMATION TECHNOLOGY

BIT120 BUSINESS AND INFORMATION SYSTEMS (4 CREDITS)
This course introduces students to management of essential information technology resources within the business organization. Students learn fundamental information technology infrastructure and components including computing hardware, communications and networking systems, systems level software and application software.

BIT140 ELECTRONIC COMMERCE (2 CREDITS)
This course examines the principles, concepts, technology, and applications of e-commerce. Students examine both traditional e-commerce and m-commerce. Students investigate the impact of commerce within the domain of information systems. General e-commerce concepts are evaluated and demonstrated through discussion and case study including: characteristics and examples of B2C e-commerce; B2B e-commerce; the rising role of social commerce; and security and payment in e-commerce. Students understand the technological infrastructure needed to support an e-commerce system and how e-commerce systems are built. The course also examines m-commerce in detail including: m-commerce concepts and technology; the range of m-commerce applications; and mobile security and payment. The course concludes with an investigation on the future of e-commerce.

BIT150 APPLIED MOBILE COMPUTING (2 CREDITS)
The course serves as an introduction to the fundamentals of mobile computing. The proliferation of wireless communication technologies and the exponential growth of portable computing devices have created an omnipresent IT infrastructure in which users can, on the move, maintain constant access with network services and resources. This course focuses on the IT infrastructure and support required to maintain the complex network which enables such access, along with state-of-the-art solutions.

BIT220 SERVER ADMINISTRATION I: WINDOWS (3 CREDITS)
This course introduces students to management and administration of the Windows server. Students explore the installation and configuration of a Windows server as well as the maintenance and administration of the operating system. Students are introduced to the Windows Server operating system and how it operates within the context of business strategy. They learn about the basic technologies that current networks are built upon. Students learn how these technologies influence business strategy, and how different uses of the technology can assist in business decision-making. Within the context of business strategy, discusses topics such as: data security, customer privacy, remote access/teleworkers, video and audio communication, and cost/benefit analysis.

BIT222 SERVER ADMINISTRATION II: LINUX (3 CREDITS)
This course introduces students to the management and administration of the Linux server as well as the maintenance and administration of the system.

BIT228 SERVER ADMINISTRATION III: WEB (3 CREDITS)
This course introduces students to Web Server Administration, including the basics of web server administration, server installation, and configuration.

BIT280 COMPUTER HARDWARE, PERIPHERALS, & SUPPORT (4 CREDITS)
This course provides an overview of computer hardware from how they work to how to upgrade and repair them. Students who successfully complete this course are prepared to take A+, the industry standard certification exam.

BIT320 SHELL & ADMINISTRATIVE SCRIPTING (2 CREDITS)
This course covers shell programming, with a focus on Linux and the Bash shell. It provides credible, real-world relevance, as well as flexible tools for students to effectively write scripts. Prerequisite(s): BIT220 Server Administration I: Windows and BIT224 Server Administration II: Linux.

BIT330 NETWORKS & TELECOMMUNICATIONS IN BUSINESS (4 CREDITS)
This course explores the role that data networks and telecommunications play in the current business landscape. Students gain a perspective of network/telecommunications history, as well as emerging trends that shape the future of business. Students are exposed to general network architecture, and learn about the basic technologies that current networks are built upon. Students learn how these technologies influence business strategy, and how different uses of the technology can assist in business decision-making. Within the context of business strategy, discusses topics such as: data security, customer privacy, remote access/teleworkers, video and audio communication, and cost/benefit analysis.

Prerequisite: ITH210 Networking
Corequisite: PRO330 Networking and Telecommunication Project

BIT350 VIRTUALIZATION TECHNOLOGY & ADMINISTRATION (2 CREDITS)
This course explores using virtualization technology to allow one computer system to operate as multiple virtual systems. Students learn that the convergence of affordable, powerful platforms and robust scalable virtualization solutions is spurring the industry to examine the broad range of uses for virtualization. Students learn how to implement various current virtualization technologies.

Prerequisite(s): BIT220 Server Administration I: Windows and BIT224 Server Administration II: Linux
Note: Students enrolled in this course may be required to pay a course fee.
BIT360 APPLIED SYSTEMS OPERATIONS & DISASTER RECOVERY [3 CREDITS]
This course introduces students to the tools and techniques used to manage an information technology system efficiently and with minimal downtime. Students learn how to strike a balance between the benefits and costs of various features. Topics covered include the elements of a computer system that can fail, ways to assess reliability, and options for maintaining resiliency and high availability for each one. Prerequisite(s): BIT220 Server Administration I: Windows and BIT224 Server Administration II: Linux

BIT370 SYSTEM ANALYSIS AND BUSINESS MODELING [4 CREDITS]
This course provides a thorough investigation into Systems Analysis and Design. Topics include analyzing the business case, requirements modeling, data and process modeling, and development strategies, with an increased focus on object modeling and project management. Students also learn about output and user interface design, data design, systems architecture and implementation, and systems operation, support, and security. Prerequisite(s): BUS345 Business Analysis, Operation, & Organizational Planning Corequisites: PRO370 System Analysis and Business Modeling Project

BIT380 INTEGRATED BUSINESS SOLUTIONS [4 CREDITS]
This course, in combination with the associated Project course (BIT381), is a hands-on introduction to technologies needed to operate a business. Students learn to design a proof of concept and then implement it by deploying integrated solutions using a Microsoft solution, as well as various open source alternatives to critical business tools. Systems covered in this course include: Microsoft SharePoint, Exchange, Active Directory, and SQL Server. Prerequisite(s): BIT220 Server Administration I: Windows and BIT224 Server Administration II: Linux Corequisite(s): BIT381 Integrated Business Solutions Project

BIT381 INTEGRATED BUSINESS SOLUTIONS PROJECT [2 CREDITS]
This course, in combination with the associated core course (BIT380), is a hands-on introduction to technologies needed to operate a business. Students learn to design a proof of concept and then implement it by deploying integrated solutions using a Microsoft solution, as well as various open source alternatives to critical business tools. Systems covered in this course include: Microsoft SharePoint, Exchange, Active Directory, and SQL Server. Prerequisite(s): BIT220 Server Administration I: Windows and BIT224 Server Administration II: Linux Corequisite(s): BIT380 Integrated Business Solutions

BIT430 DECISION SUPPORT SYSTEMS [2 CREDITS]
This course is intended to introduce students to decision support systems (DSS) and their relationship to other IT systems. DSS development approaches are studied, and students learn how to utilize DSS capacities to support different types of business and IT decisions.

BIT460 MODERN DATA CENTER, INFRASTRUCTURE, AND CLOUD COMPUTING DESIGN SERVICES [4 CREDITS]
This course, in conjunction with the associated project course (BIT461), is designed to integrate the concepts, practice, and methodologies taught in the BSIS degree program. This course explains the concepts, history, and implementation of a robust and balanced IT infrastructure. Students study data centers, servers, networks, storage, virtualization, operating systems, cloud computing and design, and end-user devices. Prerequisite(s): BIT360 Applied Systems, Operations, and Disaster Recovery, and BIT430 Decision Support Systems Corequisite(s): BIT461 Modern Data Center, Infrastructure, and Cloud Computing Design & Services Project

BIT461 MODERN DATA CENTER, INFRASTRUCTURE, AND CLOUD COMPUTING DESIGN SERVICES PROJECT [2 CREDITS]
This course, in conjunction with the associated core course (BIT460), is designed to integrate the concepts, practice, and methodologies taught in the BSIS degree program. This course explains the concepts, history, and implementation of a robust and balanced IT infrastructure. Students study data centers, servers, networks, storage, virtualization, operating systems, cloud computing and design, and end-user devices. Prerequisite(s): BIT360 Applied Systems, Operations, and Disaster Recovery, and BIT430 Decision Support Systems Corequisite(s): BIT460 Modern Data Center, Infrastructure, & Cloud Computing Design and Services

BUSINESS

BUS101 PERSONAL FINANCE [3 CREDITS]
Provides an overview of strategies for coping with daily living expenses while planning for long-term financial security.

BUS130 FINANCIAL AND MANAGERIAL ACCOUNTING [4 CREDITS]
This course covers introductory financial reporting and analysis based on real-world examples of present business environment and accounting theory. The main focus of topics and coverage is related to understanding and using financial statements and reports. Financial and managerial accounting principles are covered in relation to the economic environment with frequent references to actual events and companies. Students are challenged with current financial and accounting topics, including financial statement analysis, cost accounting, budgeting, and time value of money. Investments in equity securities and bonds are briefly explained. Corequisites: PRO130 Practice in Accounting Management

BUS201 INTRODUCTION TO ECONOMICS [4 CREDITS]
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.
BUS220 MARKETING COMMUNICATIONS (3 CREDITS)
This course equips students with the basic tools for developing and understanding effective marketing communications. This course focuses on communication with customers in the form of advertising, sales promotion, public relations, and other areas of marketing. Print, internet, and multimedia marketing are discussed. This course will emphasize marketing principles and best practices through developing an effective integrated marketing communications plan.

BUS230 MARKETING MANAGEMENT (3 CREDITS)
This course provides an overview of marketing management using best practices and principles to define target markets, identifying and building a reliable and sustainable customer base and creating and communicating the value provided to those customers. By researching marketing processes and principles the student gain an understanding of how to apply those concepts in real world situations.

BUS290 BUSINESS FUNDAMENTALS (3 CREDITS)
A survey of the various aspects of business including human resources, finance, client relations, and production. Students are able to identify the type of information that is critical to each aspect of the business. Students also learn about various organizational structures and some aspects of business law.

BUS320 PERSUASIVE COMMUNICATIONS (3 CREDITS)
This course introduces students to persuasion, sales, and negotiation in the business environment. Research, theories, and the social impact of these business tools are discussed. Students evaluate marketing and advertising to understand various persuasive techniques. Students develop written and oral skills in these areas.

BUS325 MONEY, FINANCE, AND FUNDRAISING (4 CREDITS)
For many people, money is the scoreboard of life. Unfortunately, most people have no idea what money really is, how it works, or how to make it work in their favor. This course begins by exploring what money is, how it is measured, how it works, and the forces that control it. Students then consider various tools and mechanisms used to manipulate and leverage money and what can be done to maximize its impact. Finally, students focus on a few key concepts that have a tremendous impact on their financial security and quality of life. Prerequisite(s): BIT120 Business and Information Systems Practices

BUS330 STRATEGIC PLANNING (3 CREDITS)
This course allows students to apply proven business processes that companies adopt to strategically position themselves for success. Students learn to identify and understand the mission and vision of a company. They use that information to develop a strategic business plan that takes into account technology, resources, and the current market. Students will use key market indicators to project potential success for their business and understand how to account and handle change. Prerequisite(s): BIT120 Business & Information Systems Practices

BUS345 BUSINESS ANALYSIS, OPERATION, AND ORGANIZATIONAL PLANNING (4 CREDITS)
Enterprise analysis and operations requires business managers to balance many aspects of the business; including marketing, suppliers, inventory and quality. This course explores how to analyze and address these business concerns. Students work to develop qualitative and quantitative approaches and techniques to facilitate managing this complex environment. Prerequisites: BIT120 Business and Information Systems Practices, BUS130 Financial & Managerial Accounting Corequisite: PRO345 Business Analysis, Operation, & Organization Project

BUS350 MANAGEMENT, ORGANIZATIONAL BEHAVIOR, AND LEADERSHIP PRACTICES (4 CREDITS)
This course introduces students to principles in management, organizational behavior, and leadership. Students gain insights into managing both individual and group behavior through the study of topics such as motivation, stress, and conflict management. Students also learn the qualities of a good leader and the decision making process. They are introduced to organizational design topics such as culture and change management. Students practice applying these principles through team projects and activities. Prerequisite(s): BIT120 Business and Information Systems Practices

BUS355 APPLIED BUSINESS SYSTEMS AND PRACTICES (4 CREDITS)
This course takes an applied view of business information systems; surveys current common business information systems and software; explains the applications of the systems and software; and explores how to work with vendors and developers to create systems that solve real problems in the business enterprise environment. Prerequisite(s): BIT120 Business & Information Systems Practices

BUS445 INTERNATIONAL BUSINESS PRACTICES (3 CREDITS)
Globalization in today's technology world is unavoidable. This course identifies the characteristics of managing business and technology in a multi-cultural society. The course focuses on the benefits and detriments of multicultural business practices. It addresses varying economic styles, legal and societal issues that affect both business and the ability to develop and protect technology. With the emergence of third world and oppressed societies, business and the technology of business will change drastically. This course looks at the changes that are occurring and create processes to meet these changes. Prerequisite(s): BUS345 Business Analysis, Operation, & Organizational Planning

COMPUTER SCIENCE

CSC105 USING MODERN OPERATING SYSTEMS (2 CREDITS)
Students learn many of the most productive ways to use modern operating systems like Windows™ and Linux. 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 kernel, virtual memory handling, and file systems. Students also explore functions of the operating system that will make them more productive such as shell interaction and scripting, environment variables, and security.
CSC110 INTRODUCTION TO COMPUTER SCIENCE (4 CREDITS)
Students gain exposure to a wide variety of topics in computer science. While building real applications in the lab portion of this course, students also learn fundamental concepts about such topics as data storage and manipulation, object-oriented programming, and other introductory topics.

CSC115 SURVEYS IN TECHNOLOGY (2 CREDITS)
Students learn about the many functional and industry specializations in the technology industry, including software development, business analysis, project management, game development, IT management, web development, and more. This course explores the wide variety of career opportunities in technology – both functional and industry specializations – by exploring the career paths associated with each Neumont degree program.

CSC120 TOPICS IN COMPUTER SCIENCE (4 CREDITS)
Students gain exposure to a wide variety of topics in Computer Science. While building real applications in the lab portion of this course, students also learn about the different foci a student could have while studying computer science at Neumont University.

CSC130 PRINCIPLES OF SOFTWARE ENGINEERING (4 CREDITS)
This course introduces students to the software development life cycle and includes discussions on software processes, process models, and methodologies. The course also discusses support and maintenance related to software after it has been released.

CSC150 OBJECT ORIENTED PROGRAMMING AND DESIGN (6 CREDITS)
This course provides a thorough introduction to object oriented programming. Topics include fundamentals of programming, classes and objects, inheritance, polymorphism, interfaces, events, and exception handling, with an emphasis on writing quality object-oriented code.
Prerequisite(s): CSC110 Introduction to Computer Science

CSC160 APPLICATION DEVELOPMENT (4 CREDITS)
This course introduces students to various concepts 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(s): DBT130 Databases I (may be taken concurrently) or DBT260 BusinessDatabaseSystems(maybetakenconcurrently);CSC150ObjectOrientedProgramming & Design

CSC170 INTRODUCTION TO MOBILE DEVICE PROGRAMMING (4 CREDITS)
This course introduces students to mobile device computing and programming concepts. Mobile devices include mobile telephones, smart phones, personal entertainment devices, and tablet computers. This course explores the devices, their operating system platforms, and their hardware profiles for application programming, e.g., MIDP, CDMA, CLDC, Qualcomm, etc. Programming labs in this course focuses on on game interfaces and brew.
Prerequisite(s):CSC105UsingModernOperatingSystems(maybetakenconcurrently)

CSC180 OPEN SOURCE PLATFORMS DEVELOPMENT (4 CREDITS)
Students are introduced to the Java core packages and APIs. Students learn skills for developing, deploying, and managing Java applications. Course content includes the language's syntax, core APIs, graphical user interface (GUI) framework(s), and platform tools.
Prerequisite(s): CSC150 Object Oriented Programming & Design

CSC190 C++ PROGRAMMING (4 CREDITS)
This course covers fundamental concepts unique to the C++ programming language. Students begins by noting the many similarities between C++ and other mainstream languages then fully covers low-level constructs such as pointers, memory management, operator overloading, templates, STL, function objects, and the Boost C++ libraries.
Prerequisite(s): CSC150 Object Oriented Programming & Design

CSC210 INTRODUCTION TO WEB PRESENTATION & DEVELOPMENT (2 CREDITS)
Students gain exposure to a wide variety of topics in web development. This course introduces students to the skills necessary to design and develop a basic web site while exposing them to concepts and terminology that are applicable in a technical career.

CSC230 COMPUTATIONAL THEORY (3 CREDITS)
This course is designed to pique a student's interest in exploring and learning more about the theoretical side of computing. This course exposes students to conceptual tools that practitioners use in computer engineering and develops critical thinking and problem solving skills by demonstrating elegant solutions to complicated problems.
Prerequisite(s): CSC250 Algorithms & Data Structures I

CSC240 BUSINESS WEB DEVELOPMENT (4 CREDITS)
In today's economy even the smallest businesses are expected to have a website. In this course students learn how businesses can improve their processes by using the Internet to interface with customers, partners, and suppliers. This includes the implementation and programming of technologies such as ecommerce, live online customer service/support, and supply chain management tools. Students also learn the phases of web development such as analysis, development, and deployment. Students also include research of the tools and technology (both proprietary and open source) most commonly used to develop websites.
Prerequisite(s): CSC110 Introduction to Computer Science
Corequisites: PRO240 Business Web Development

CSC250 ALGORITHMS AND DATA STRUCTURES I (4 CREDITS)
This course is designed to enhance a student's problem solving ability and enhance their skillset in developing solutions to common software problems using general algorithms and abstract data types. Students will utilize common data structures; understand and apply various searching and sorting algorithms to software; and make analyses of algorithm use and design.
Prerequisite(s): CSC150 Object Oriented Programming & Design; MAT110 Sets, Probability, & Number Systems
CSC250 ALGORITHMS AND DATA STRUCTURES II  (4 CREDITS)
This course is designed as a continuation of CSC250. This course focuses on tree and table based data structures, as well as advanced algorithmic techniques and algorithm discovery/creation. Students compare and contrast algorithms and programming methods to better understand the principles involved in being a good problem solver in regards to computer science.
Prerequisite(s): CSC250 Algorithms & Data Structures I

CSC260 DYNAMIC WEB PROGRAMMING  (4 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(s): CSC160 Application Development and PRO160 Application Development Lab.
Corequisite: PRO260 Dynamic Web Lab

CSC263 ADVANCED .NET PROGRAMMING WITH C#  (4 CREDITS)
This is an advanced topics course covering programming techniques, C# language features, CLR facilities, and the .NET Framework. Students also continue to develop general programming concepts in this course. Students can expect to spend time outside of the scheduled class time working on various projects, programming assignments, reading, and researching.
Prerequisite(s): CSC250 Algorithms & Data Structures I

CSC268 WINDOWS MOBILE DEVICES  (4 CREDITS)
This course introduces students to programming Windows Mobile™ enabled devices with Microsoft visual studio .net languages.
Prerequisite(s): CSC170 Introduction to Mobile Device Software Development

CSC280 DEVELOPING SCALABLE WEB APPLICATIONS  (4 CREDITS)
Students build upon the knowledge gained from CSC180 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 are discussed. Students learn how to put persistence strategies into practice. Applicable open-source frameworks and tools may also be introduced.
Prerequisite(s): CSC180 Open Source Platforms Development; PRO180 Open Source Platforms Development Lab; DBT130 Databases I (may be taken concurrently) or DBT260 Business Database Systems (may be taken concurrently concurrently)
Corequisite(s): PRO280 Scalable Web Applications Lab

CSC316 WEBSITE DESIGN  (4 CREDITS)
This course focuses on graphic design for websites. Students learn basic interaction conventions, visual hierarchy, user-centered design philosophy, navigation systems, design layout approaches, wire framing techniques, specifications, annotation, prototyping, and delivery to developers.

CSC320 SOFTWARE ENGINEERING METHODOLOGIES  (4 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.

CSC324 XML AND XSLT  (4 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 programatically interfacing with XML documents are also covered.

CSC325 HUMAN COMPUTER INTERFACE DESIGN  (4 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.

CSC330 PROGRAMMING LANGUAGES  (3 CREDITS)
Introduction to the broad field of programming languages. This course explores implementation issues, the theoretical foundations of programming languages, the evolution of programming languages, as well as semantics and programming.
Prerequisite(s): CSC260 Dynamic Web Programming or CSC280 Developing Scalable Web Applications

CSC340 COMPUTER ARCHITECTURE  (3 CREDITS)
This course helps students build an understanding of the most fundamental building blocks of computers. Starting at the digital gate level, students will learn to design digital logic. Students study digital abstractions such as flip-flops and latches, memory and arithmetic logic units. Students learn to combine these abstractions to design fully functional CPUs. This course also touches on the interface between memory, CPUs and I/O ports. At the successful completion of this course, students are comfortable with the underlying constructs that support systems level software.
Prerequisite(s): CSC260 Dynamic Web Programming or CSC280 Developing Scalable Web Applications

CSC360 SOFTWARE DESIGN PRINCIPLES  (3 CREDITS)
Students learn advanced software design techniques including the use of abstraction, metaphor, scope reduction, elimination of redundancy, etc. as well as the use of patterns that employ these principles. The course helps students understand how to apply these principles to build, refactor and maintain software.
Prerequisite(s): CSC130 Principles in Software Engineering, CSC260 Dynamic Web Programming or CSC280 Developing Scalable Web Applications

2013 COURSE CATALOG 29
CSC370 PROCESS MODELING (3 CREDITS)
This course instructs students on strategies and intuition regarding how to reduce a reality to a computer model. It attempts to give students a broad perspective that exceeds simple business process modeling by including topics and modeling theories such as discrete event simulation, queuing theory, finite element analysis, information theory, game theory and Bayesian mechanisms. Students learn to reason about models, including identifying model fidelity and weaknesses for various domains. This broad approach is intended to give students an intuitional understanding of modeling that prepares the student to embrace modeling as a significant strategy in industry problem solving.
Prerequisite(s): CSC250 Algorithms & Data Structures I

CSC380 DISTRIBUTED SYSTEMS (3 CREDITS)
This course explores computational processing residing on multiple platforms. Students start with basics as simple socket communications, protocol rationale and remote procedure invocation and then advance to the use of these mechanisms to address distributed concerns such as caching and transactions. Finally, this course looks into topological concerns that come with scale such as cloud computing and fully decentralized distributed systems.
Prerequisite(s): CSC280 Developing Scalable Web Applications and PRO280 Scalable Web Applications Lab

CSC385 DEVELOPMENT IN THIRD-PARTY SYSTEMS (4 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 are explored. Students are 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 may be required to pay a class fee.
Prerequisite(s): CSC260 Dynamic Web Programming or CSC280 Developing Scalable Web Applications

CSC390 OPERATING SYSTEMS (3 CREDITS)
This course explores the internal workings of modern operating systems and system components such as boot processing, process scheduling and management, concurrency management, memory management, files systems and security management. Students explore how modern operating systems have addressed classic problems in software engineering such as concurrent modification, resource pooling and virtualization. Successful students are comfortable in intelligently employing operating systems services because these students understand the underlying mechanisms at work.
Prerequisite(s): CSC260 Dynamic Web Programming or CSC280 Developing Scalable Web Applications

CSC415 PATTERNS (4 CREDITS)
Students learn to recognize and implement patterns that occur frequently in software development and to identify how to apply them when maintaining or refactoring existing software.
The course focuses on how to use patterns along with object-oriented programming techniques to create a good design for common programming problems.
Prerequisite(s): CSC250 Algorithms & Data Structures I

CSC440 TESTING AND QUALITY ASSURANCE (4 CREDITS)
This course focuses on testing and quality assurance processes and principles. The course provides an investigation into the relationship between software development and software testing and how the two relate within the software development life cycle. Topics include: testing processes and standards, software and testing metrics, implementation-based testing, integration testing, automated testing, systems testing and quality assurance.

CSC460 INDUSTRY TRENDS IN SOFTWARE DEVELOPMENT (4 CREDITS)
Students are introduced to a technology, platform, programming language, and/or other topics related to software development that are currently used in industry. Relevant documentation, tools, patterns, methodologies, and best practices are covered. Students are exposed to examples of the topics’ use and given opportunities to apply and use them in preparation for an industry career.
Prerequisite(s): CSC260 Dynamic Web Programming or CSC280 Developing Scalable Web Applications

DATABASE TECHNOLOGY

DBT130 DATABASES I (4 CREDITS)
Students gain competence in relational database management systems; students study the relational model of data, database design, basic database administration, and SQL querying, programming, and data manipulation. Students use modern relational database management systems (such as SQL Server or DB2) to apply their knowledge.

DBT230 DATABASES II (4 CREDITS)
Students learn about non-relational options for persistence of structured and non-structured data. Students explore, contrast, and implement persistence options such as text and binary files, XML and JSON, and key-value pair, document, column-family, or other current NoSQL databases. Strategies for meeting the persistence needs of large-scale systems are also introduced.

DBT260 BUSINESS DATABASE SYSTEMS (4 CREDITS)
This course provides students with the knowledge to analyze, design and implement effective, robust, and successful databases. The course focuses on both the development of databases and the eventual management and administration of the system. Students explore topics ranging from the database system development lifecycle to emerging trends and legal issues in the field.

DBT330 PERSISTENCE APPLICATIONS (2 CREDITS)
In this project-based course, students apply skills in information modeling, relational databases, and non-relational data persistence to design and implement storage solutions. Projects may be assigned to individuals or groups, and will require demonstrated competency in meeting a variety of business domain, scalability, and availability requirements.
Prerequisite(s): DBT130 Databases I and DBT230 Databases II
ENGLISH

ENG110 INTRODUCTION TO ENGLISH COMPOSITION (4 CREDITS)
This course is an introduction to the conventions of academic and professional writing. Students develop crucial skills for college-level writing and establish a solid foundation for their future professional communications. Students learn about key rhetorical concepts, including purpose, audience, context, and genre. Students explore effective writing processes, build awareness of writing conventions, improve revising skills, and expand critical thinking, reading, and writing abilities. ENG110 is also intended to expand students’ knowledge of grammar, punctuation, style, and the conventions of particular writing genres. In addition, throughout the course, students learn about the importance of participation in civic dialogue and informed debate. Writing assignments emphasize genre, vocabulary, flexible thinking, self-directed revision and research, and critical engagement with the classroom community.

ENG210 PERSUASIVE & PROFESSIONAL WRITING (4 CREDITS)
This course introduces different styles of business and technical writing. Students prepare informal and formal documents suitable for workplace scenarios. The course's design is informed by current research in rhetoric and professional writing and is guided by the needs and practices of business, industry, and society at large. The course teaches the rhetorical principles that help students shape their business writing ethically, for multiple audiences, and in a variety of professional scenarios. Students are prepared for the writing environment of the 21st-century workplace through research, applied practice, collaboration, and revision.
Prerequisite(s): ENG110 English Composition

ENG310 CREATIVE WRITING (4 CREDITS)
This course offers students the opportunity to read and write a collection of works that stress inventive writing. This class seeks to heighten awareness and enjoyment of the form and substance of all literature by providing due reflection on foci such as technique, figurative language, plot, tone, technique, setting, imagery, characters, point of view, voice, and more. In this course, students consider how the pulls of such formal elements may lure a writer beyond the planned topic and into new and surprising insights. In ENG310, students learn strategies for crafting powerful short stories, multimedia essays, and poetry. Improvement in the quality of students’ critical-thinking and composition skills which prime them for better appreciation of prose, scholastic evolution, and conviction in the search for an effective creative process. The course includes the reading and writing of creative works along with peer critiques and collaborative discussions.
Prerequisite(s): ENG110 English Composition

FINE ARTS AND COMMUNICATION

FAC101 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.

FAC105 LEADERSHIP AND PROBLEM-SOLVING (3 CREDITS)
This course introduces students to basics of leadership, business, communication, and decision-making. Students work collaboratively to develop an understanding of unique solutions. Students learn to understand many elements of a problem, research the problem and potential solutions, and critically think through potential solutions.

FAC120 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.

FAC125 COLLABORATIVE AND INTERPERSONAL COMMUNICATIONS (3 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.

FAC140 ELEMENTS OF DESIGN THEORY (4 CREDITS)
This course helps students understand the basic principles of good design. Students learn about elements of composition including line, form, texture, value, color, and shape. They discuss and work to see how these elements interact with the principles of design: balance, movement, rhythm, emphasis, simplicity, contrast, proportion, space, and unity. Students explore their creativity through these basic elements and principles.

FAC200 THEATER (2 CREDITS)
This course is designed to provide students a basic foundation for understanding theater and drama. They learn theater history, acting, and analyzing productions.

FAC201 MUSIC APPRECIATION (2 CREDITS)
Students are introduced to a range of music. They develop skills in recognizing different components of music and styles.

FAC210 MUSIC COMPOSITION (2 CREDITS)
This course provides an overview of the songwriting and compositional creative process. A recital of performances of student compositions are offered at the end of the semester and are open to the public.

FAC240 PRODUCT DEVELOPMENT (3 CREDITS)
Introduces students to the basics of industrial design and product development. Students look at how well-designed products can impact the quality and efficiency of our lives. Students focus on the artistic elements as well as the usability of products. Students also look at customer, market, and industry factors that impact the design, development, and success of a product.
FAC299 MARKETING YOUR PERSONAL BRAND  (2 CREDITS)
Students will learn about and put into practice various topics related to effective personal communication. Major course topics are effective writing including memos, emails, resumes and cover letters, effective verbal communication including conversation, interviewing techniques and negotiation, and other relevant aspects of communication. Prerequisite(s): Instructor Approval

GAMING TECHNOLOGY

GAT120 TOPICS IN GAME DEVELOPMENT  (2 CREDITS)
This course is designed to provide an intellectual and practical framework in game development. The course explores the game development cycle from green-lighting a project to localization and street delivery. Topics taught in the course includes project life cycles, legal framework for game development, the business of game development, development of game assets, scheduling, and documentation methods.

GAT160 GAME LIBRARIES  (4 CREDITS)
Students receive exposure to various libraries used for game and graphical programming such as DirectX and OpenGL. Students load graphics and manipulate game play using these libraries. Topics covered are the rendering pipeline, related libraries, and animation using these libraries, drawing, lighting, color, and texture mapping. Prerequisite(s): CSC190 C++ Programming

GAT180 MOBILE GAME DEVELOPMENT  (3 CREDITS)
This course covers game development using mobile devices such as PDAs, cell phones, and smart phones. Students will build high-performance games using limited hardware resources. Students will study about various topics in the mobile gaming industry such as mobile game engines, mobile graphics, threads, media, and networking. Prerequisite(s): CSC160 Application Development

GAT260 GAME CONSOLE DEVELOPMENT  (4 CREDITS)
This course covers game production specifically for consoles. Students learn the intricacies and challenges of various console platforms. Students are also exposed to the extra performance gains consoles provide over other types of gaming hardware. Prerequisite(s): CSC160 Application Development

GAT265 GAME CONSOLE LAB  (3 CREDITS)
Students work in teams on software development projects using concepts from GAT260. 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 in line with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders. Prerequisite(s): GAT260 Game Console Development

GAT280 RICH ANIMATION  (3 CREDITS)
This course covers animation within current rich web technologies. Students animate various objects with basic physical interactions. Topics such as velocity, acceleration, friction, springing, collision detection, bouncing, particle attraction, and billiard ball physics are covered. Students use these concepts to produce a web-based game. Prerequisite(s): CSC160 Application Development

GAT310 ADVANCED GAME PHYSICS  (3 CREDITS)
This course covers advanced topics within game physics. Students produce objects with real-time interactions between the user input, object environment, and each other. This course exposes students to both high-level physics engines then further delves into producing interactions using raw formulas. Students study several advanced physical topics such as numerical integration, crowds, deformable bodies, fluids and gases, and other game-specific physics concepts. Prerequisite(s): CSC190 C++ Programming

GAT350 COMPUTER GRAPHICS  (3 CREDITS)
This course covers fundamentals of both 2D and 3D computer graphics. Various computer graphics topics are covered such as display techniques, raster graphics, coordinate systems, transforms, projections, hidden element removal (clipping, culling), projections such as orthogonal and perspective, lighting and shading, ray tracing. Prerequisite(s): CSC190 C++ Programming

GAT360 GAME PROGRAMMING AND PRODUCTION  (4 CREDITS)
This course is a precursor for the student’s Game Capstone Project. Students use their experiences from all aspects of their education to thoroughly plan and design their capstone project. Students produce requirements within a reasonable scope of work. Students produce assets, design game play, and test various proofs of concepts for their capstone project. Students must sell their ideas to industry professionals for approval before beginning their capstone work. Prerequisite(s): Instructor Approval

GAT370 GAME NETWORKING  (3 CREDITS)
This course covers concepts related to hosted and peer-to-peer networking game play. Students are exposed to several nuances within the field such as speed, concurrency resolution, latency, cheating prevention, information loss and decision making, optimization, and turn-by-turn network game play. Students add online play to an existing game as a final project. Prerequisite(s): CSC190 C++ Programming

GAT380 GAME ENGINE IMPLEMENTATION AND DEVELOPMENT  (3 CREDITS)
This course covers fundamental topics of building and debugging a game engine. Students are exposed to various game engine challenges such as 3D math, startup and shutdown, resources, real-time simulation, human interface devices. Students work in small groups to build a small but powerful game engine. Prerequisite(s): CSC190 C++ Programming

GAT420 ARTIFICIAL INTELLIGENCE  (3 CREDITS)
This course begins with the fundamentals of artificial intelligence then delves deeper into game-specific artificial intelligence problems. Students learn how and where artificial intelligence appropriately applies in game play.
Specifically the course delves into decision making, path finding, movement, tactical analysis, computer learning, execution management, and AI design.
Prerequisite(s): CSC190 C++ Programming

**GAT430 SERIOUS GAMES** *(4 CREDITS)*
This course covers current trends in the Serious Games initiative. Students learn how to design and build games to simulate real-world scenarios in various industries. Students build an interactive simulation within a non-entertainment oriented field.
Prerequisite(s): GAT360 Game Programming and Production

**HEALTH AND PHYSICAL EDUCATION**

**HPE160 PERSONAL FITNESS** *(2 CREDITS)*
Students learn physical fitness skills essential to their health and well-being as computer professionals. This class is held at an off-site fitness facility and requires students to demonstrate specific physical activity skills.
Note: Students enrolled in this course may be required to pay a course fee

**HPE170 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 that maximize mental, spiritual, physical and social well-being. Students write and engage in a personalized health plan.

**HPE180 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: Students enrolled in this course may be required to pay a course fee

**HUMANITIES**

**HUM105 THE ART AND SCIENCE OF SUCCESS** *(2 CREDITS)*
Helps students develop and refine necessary skills for success. Students learn effective time management, communication, and research skills. Students discuss the importance of ethics, professionalism, and integrity throughout their life.

**HUM115 TECHNICAL COMMUNICATIONS** *(3 CREDITS)*
Prepares students to communicate effectively through both oral and written communication in various settings.

**HUM120 MODERN LITERATURE** *(3 CREDITS)*
This course explores information architecture, formulaic patterns, plot and story in fantasy and science fiction literature.

**HUM150 LOGIC** *(3 CREDITS)*
This course provides an introduction to propositional logic, including truth tables, truth trees, and natural deduction, with an emphasis on the application of logic to the evaluation of arguments expressed in natural language. This course also covers 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.

**HUM205 ETHICS** *(3 CREDITS)*
Students examine the concept of ethics and the basic principles underlying ethical practice. Students explore research and literature on ethics and relate this information to decision-making in professional and civic arenas.

**HUM220 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).

**HUM240 JOURNALISM** *(3 CREDITS)*
This course focuses on the basics of journalism and journalistic writing. Students learn to evaluate mass media and news sources. They understand the potential uses and impact of news media. The course focuses on reporting and writing. Students build skills in interviewing, information gathering, and creating well-written, concise, and interesting news items. Students learn to develop stories that are clear, accurate, and ethical.

**HUM310 CRITICAL THINKING** *(2 CREDITS)*
This course covers rational dialog and debating, logical fallacies, deduction vs. induction, scientific method, and the realistic analysis of arguments.

**HUM321 TECHNICAL WRITING** *(3 CREDITS)*
This course applies the skills and knowledge of writing gained in English Composition to technical writing genres. Particular emphasis is given to genres used in the computer science field such as documentation, requirements documents, needs analysis, and feasibility studies. Critical thinking and problem solving are a part of the criteria for good analysis and writing in course assignments.
Prerequisite(s): ENG110 Introduction to English Composition

**INFORMATION TECHNOLOGY**

**ITH210 NETWORKING** *(4 CREDITS)*
This class provides 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).
Note: Students enrolled in this course may be required to pay a course fee
### INFORMATION SECURITY

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITS320</td>
<td>Systems, Network, and Physical Security</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITS380</td>
<td>Auditing, Governance, and Compliance</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITS410</td>
<td>Developing Secure Code</td>
<td>4</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT105</td>
<td>College Algebra</td>
<td>3</td>
</tr>
</tbody>
</table>

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.
Students are exposed to problems which relate to logic, probability, and operations research. Discrete mathematics is a gateway and foundation for many other computer science courses including: algorithms, data structures, database theory, automata, formal languages, compiler theory, computer security, and operating systems. Prerequisite: CSC252 Algorithms & Data Structures II

**MANAGEMENT**

**MGT230 INFORMATION STORAGE AND MANAGEMENT**  (3 CREDITS)
This course provides an overview of the management, storage, and availability of information for business. The “Big Data” phenomenon that exists in today’s marketplace requires that technicians understand how the data can be stored, extracted, and utilized for specific business purposes. Due to the global aspect of business, data management is paramount to the success of business and industry. This process must also include security and warehousing measures. The course develops students’ ability to manage and store data in a manner that guarantees business continuity in the global business environment. Prerequisite: BIT120 Business & Information Systems Practices

**MGT300 FUNDAMENTALS OF PROJECT MANAGEMENT**  (3 CREDITS)
This course introduces students to principles of project management (PM) as they relate to information technology (IT) projects. The nine knowledge areas of PM are discussed including scope, cost, schedule, integration, risk, communication, human resources, quality, and procurement. In addition, the PM process groups are discussed including initiating, planning, executing, monitoring and controlling, and closing. Students will work collaboratively to develop an understanding of the fundamentals of project management of IT projects. Prerequisite: PRO470 Project Management Project

**MGT470 PRACTICES IN PROJECT MANAGEMENT**  (4 CREDITS)
This course continues the study of Project Management (PM) as it relates to Information Technology (IT) projects. The nine knowledge areas of PM are discussed in depth. These areas include scope, cost, schedule, integration, risk, communication, human resources, quality, and procurement. Each knowledge area are discussed in depth including current practices, planning procedures and documents, diagrams and charts, and tools used to manage each area. Prerequisite(s): MGT300 Fundamentals of Project Management; Corequisites: PRO470 Project Management Project

**MODELING AND ANALYSIS**

**MOA140 INFORMATION MODELING**  (4 CREDITS)
Students learn about modeling and querying an information system at the conceptual level and mapping between conceptual and logical (e.g. relational) levels. Modeling tools such as Object Role Modeling (ORM) and Unified Modeling Language (UML) are covered at an introductory level.

**MOA240 INFORMATION MODELING II**  (4 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(s): MOA140 Information Modeling I

**MULTIMEDIA**

**MTM110 INTRODUCTION TO DIGITAL PHOTOGRAPHY**  (2 CREDITS)
This course provides an introduction to digital photography including graphic design and photographic editing. Note: Students enrolled in this course may be required to pay a course fee

**MTM120 INTRODUCTION TO PHOTOSHOP**  (3 CREDITS)
This course introduces students to the basics of Adobe Photoshop CS. Students will work with Photoshop tools and features to create and edit digital imagery. Students learn the application of this software for web development. Note: Students enrolled in this course may be required to pay a course fee

**MTM130 INTRODUCTION TO DRAWING**  (3 CREDITS)
This is an introductory drawing course that covers basic drawing methods, media and concepts. This course emphasizes drawing from observation with development of relative value, negative/positive space and shape, composition, line, edge development, volumetric analysis of form, light and perspective. This class focuses on the drawing process and developing skills, as well as creating well-composed finished drawings.

**MTM140 BASICS OF FILM**  (2 CREDITS)
This course introduces students to the art of film. Students explore style, genre, period, and the cultural origin of films. The course emphasizes historical, theoretical, and current issues in film and their impact on current society. Students explore the elements of a successful film through careful analysis of various examples.

**MTM160 GRAPHIC DESIGN TOOLS**  (4 CREDITS)
Introduces students to the Adobe Creative Suite graphic design applications: Photoshop, Illustrator, Fireworks, Flash, After Effects, inDesign, and other similar programs. Students design projects such as website mockups, photo illustrations, Bezier drawings, and printed materials. Note: Students enrolled in this course may be required to pay a course fee

**MTM165 GRAPHIC DESIGN PROJECTS**  (2 CREDITS)
Students explore a variety of typical graphic design problems such as corporate identity, photo illustrations and manipulation, photography, ads, animations, information graphics, page layout, and typography. Note: Students enrolled in this course may be required to pay a course fee

**MTM230 DIGITAL ART I**  (3 CREDITS)
This course focuses on sound and level design for digital applications. Students learn the basics of sound recording, editing and audio library management. Students work on sound effects for in-project cut scenes, and actor dialogue. Students also learn the basics of interactive level design. Levels are conceived, designed and built to a non-textured “white box” stage.
Focus is on design that provides engaging and immersive game play, and how to affect level design that contributes to the overall style and theme of project.

**MTM240 VIDEO FUNDAMENTALS**  (3 CREDITS)
This course gives students an introduction to the basics of shooting and editing digital video. Students learn about composition in film and the elements of creating a visual story. Students analyze films and other digital video to understand the art and aesthetics of film development and production. Students complete short video projects throughout the quarter.

**MTM260 MEDIA DESIGN TOOLS**  (3 CREDITS)
This course introduces students to the tools for acquiring and editing audio and video assets. Students are introduced to pre-production, production, and post-production tools and processes as well as related topics such as character animation, titles, motion graphics, compositing, keying, color grading, storyboarding, asset management, logging, and editing.

**MTM265 MEDIA DESIGN PROJECTS**  (3 CREDITS)
Using the tools and techniques learned in MTM260, students create narrative pieces such as short films, corporate sales presentations, motion graphics, software demos, cartoons, and how-to’s.
Prerequisite(s): MTM260 Media Design Tools

**MTM282 INTERACTIVE WEB DEVELOPMENT**  (4 CREDITS)
This course focuses on current industry languages and standards for front-end interactive web development. Students learn some of the languages, libraries, and frameworks available for creating rich internet applications using web services and DOM manipulation.

**MTM312 MULTIMEDIA, GAME AND ENTERTAINMENT SYSTEMS**
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 lifecycle are discussed. Note: Students enrolled in this course may be required to pay a course fee
Prerequisite(s): CSC260 Dynamic Web Programming or CSC280 Developing Scalable Web Applications

**MTM316 RICH INTERNET APPLICATIONS**  (4 CREDITS)
Students learn fundamentals of developing complete rich Internet applications utilizing frameworks that augment the functionality of the browser. Custom drawing, specialized animations, and handling large data sets are a few of the concepts discussed in class.

**MTM320 ADVANCED WEB SCRIPTING**  (4 CREDITS)
This course focuses on advanced topics in scripting for the web. The primary scripting language used is JavaScript for front-end development. Students learn to develop useful tools and applications in the form of extensions for various industry standard web browsers. Students also develop advanced plugins for the various industry accepted JavaScript libraries most commonly used in frontend development today.
Prerequisite(s): MTM282 Interactive Web Development

**MTM330 DIGITAL ART II**  (3 CREDITS)
This course covers the fundamentals of 3D modeling and texturing for digital applications. Students learn how to model, map and create textures for characters, interactive and environmental objects. Students learn to use digital media tools for texture creation and enhancement. Basic lighting, rendering and animation techniques are also covered.

**MTM350 EXPERIENCE DESIGN**  (2 CREDITS)
This course uses the latest media technologies to create synthetic exploratory digital experiences that re-create reality and alternate realities. Students learn techniques that produce rich, compelling web experiences.
Prerequisite(s): MTM160 Graphic Design Tools and MTM260 Media Design Tools

**MTM355 DIGITAL DESIGN**  (3 CREDITS)
This course is designed to increase the student’s ability to creatively design within the digital domain. Major topics include: essentials for successful digital design, color and color accuracy in the digital world, symmetric and asymmetric layout techniques, creative use of shapes and space, large file management techniques, theoretical and applied typography, professional production methods to increase workflow, and stereographic imagery.
Recommended: Basic Photoshop Knowledge

**MTM370 FRONT-END IMPLEMENTATION**  (4 CREDITS)
This course explores the latest techniques in converting static visual designs into high-fidelity, clean, accurate HTML/CSS standards-compliant websites. Concepts such as graceful degradation and progressive enhancement are explored across different desktop and mobile browser platforms. Media slicing/optimization and Search Engine Optimization (SEO) are explored. Students learn about the relationship between front-end coders and graphic designers and the common potential pitfalls in these relationships.

**MTM380 CREATIVE WRITING AND STORYBOARDING**
Students explore the art of creative writing specifically as it relates to storyboard and video game development. Time is spent developing, observing, interpreting and expressing the skill. The central focus throughout the course is on unearthing a unique and personal voice and relaying that to an alternative reality as seen in video games. Students experiment with critical reading and thinking about creative writing through written and oral exercises.

**MTM410 DIGITAL PORTFOLIO**  (1.5 CREDITS)
Students build a portfolio of their work for presentation to potential employers. Students reflect on their work through the program and compile a simple yet powerful presentation. The presentations contain highlights of the student’s best work from all areas of their education and project work.
Prerequisite(s): PRO395 Game Capstone Project

**MTM412 ADVANCED ENTERTAINMENT SYSTEMS**  (4 CREDITS)
Students explore development of higher level entertainment systems. Topics will include 3D animation, sound effects, advanced particle effects, network programming, etc.
Students explore concepts involved in creation of a large scale video game from concept to realization. Students develop critical vocabulary with which to discuss the elements and craft of creative writing, become familiar with different genres of creative writing, explore and analyze the communication of meaning through writing, and produce a portfolio of original work.

Prerequisite(s): MTM312 Multimedia, Game, & Entertainment Systems

**MTM450 WEB GAME DEVELOPMENT** (3 CREDITS)
This course provides an introduction to basic web game design principles and in-browser gaming experiences. Students design, animate, and develop typical online games.

**MTM470 BACK-END IMPLEMENTATION** (4 CREDITS)
Students will select a project from previous courses and implement a website from start to finish that includes a designed and implemented template system, SEO, analytics, and content management system (with customized admin user interface), media elements, ties to external web services, and interactive widgets. This course gives students time to perfect and polish projects for their design portfolio.

**PHYSICAL AND BIOLOGICAL SCIENCE**

**PSC115 INTRODUCTION TO BIOLOGY** (2 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 also explore the basic similarities and differences between plant and animal systems. Laboratory exercises 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.

**PSC201 ASTRONOMY** (2 CREDITS)
This course provides a basic introduction to the science of astronomy. Students 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 also examine recent advances such as the discovery of black holes.

**PSC210 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.

**PSC220 INTRODUCTION TO PHYSICS** (3 CREDITS)
This course provides an introduction to basic physics concepts. Students examine such principles as kinematics in one and two dimensions, forces, dynamics of uniform circular motion, waves and sound, and the principle of linear superposition.

**PSC225 STUDIES IN APPLIED PHYSICS** (4 CREDITS)
This course provides an introduction to basic physics concepts. Students examine such principles as kinematics in one and two dimensions, forces, dynamics of uniform circular motion, waves and sound, and the principle of linear superposition.

**PSC230 INTRODUCTION TO CHEMISTRY** (2 CREDITS)
This course introduces the fundamentals of chemistry utilizing a virtual laboratory environment. Students develop analytical thinking skills as they perform virtual experiments and then examine and report their findings. Topics covered 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(s): MAT105 College Algebra or equivalent

**PROJECTS**

**PRO130 PRACTICE IN ACCOUNTING PROJECT** (2 CREDITS)
Students work in teams on financial and managerial accounting projects. The projects provide experience with the various aspects and principles of account. This course builds upon the foundation and theory of the lecture course. Students are given a business case study and are asked to act in a role as an accountant for the company. Students analyze and create accounting reports as well as make financial recommendations regarding the company.

Prerequisite(s): BUS130 Financial & Managerial Accounting

**PRO160 APPLICATION DEVELOPMENT LAB** (2 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 in line with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.

Corequisite(s): CSC160 Application Development

**PRO180 OPEN SOURCE PLATFORMS DEVELOPMENT LAB**
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 in line with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.

Corequisite(s): CSC180 Open Source Platforms Development

**PRO240 BUSINESS WEB DEVELOPMENT PROJECT** (2 CREDITS)
Students work in teams on web development projects. The projects provide experience with various phases of web development, give students opportunities to perform a variety of roles on web 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 in line with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.

Prerequisite(s): CSC240 Business Web Development
The project role and learning goals for each student are individualized in line with their knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.

**Prerequisite(s):** BIT370 System Analysis & Business Modeling

**PRO390 CAPSTONE PROJECT (4 CREDITS)**

Students work either in teams or individually on a project which demonstrates the overall attainment of the learning objectives of a student's academic program. The project must be approved by the instructor. Students may choose to complete a project in an interest area or career direction of their own choosing or a project can be assigned to them by the instructor. The projects provide experience unique to the end of the program and give students opportunities to perform and develop each of their skill sets in a chosen discipline. These projects 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 in line with his/her knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.

**Prerequisite(s):** Registrar or Instructor Approval

**PRO393 WEB CAPSTONE PROJECT (4 CREDITS)**

Students work either in teams or individually on a project which demonstrates the overall attainment of the learning objectives of a student's academic program. The project must be approved by the instructor. Students may choose to complete a project in an interest area or career direction of their own choosing or a project can be assigned to them by the instructor. The projects provide experience unique to the end of the program and give students opportunities to perform and develop each of their skill sets in a chosen discipline. These projects 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 in line with his/her knowledge base and growth focus. Projects may include interaction and/or collaboration with external clients and other stakeholders.

**Prerequisite(s):** Registrar or Instructor Approval

**PRO345 BUSINESS ANALYSIS, OPERATION, AND ORGANIZATIONAL PROJECT (2 CREDITS)**

Enterprise analysis and operations requires business managers to balance many aspects of the business; including marketing, suppliers, inventory and quality. This course explores how to analyze and address these business concerns. Class members will work to develop qualitative and quantitative approaches to facilitate managing this complex environment. As a project emphasis, this course focuses on applying the techniques and approaches described in BUS345.

**Prerequisite(s):** BUS345 Business Analysis, Operation, & Organizational Planning

**PRO370 SYSTEM ANALYSIS AND BUSINESS MODELING (4 CREDITS)**

Students work in teams on business case study projects. The projects provide experience with various phases of the analysis, modeling, architecture, development, support, and management of information technology projects. Students are given various opportunities to perform a variety of roles on IT teams, strengthen and integrate students' existing skills, and provide motivation for the acquisition of new skills.

**Prerequisite(s):** Registrar or Instructor Approval

**PRO470 PROJECT MANAGEMENT PROJECT (2 CREDITS)**

This course is the project portion of the study of Project Management (PM) as it relates to Information Technology (IT) projects. There are several projects assigned that cover numerous PM knowledge areas.
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(s): Instructor and Registrar Approval

PRO494 ENTERPRISE PROJECTS CIS II (6 CREDITS)
Students spend 20 hours per week working as part of a 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(s): Instructor and Registrar Approval

ROBOTICS

RBT326 INTELLIGENT SYSTEMS (4 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.

SOCIAL SCIENCE

SSC240 SOCIAL PSYCHOLOGY (3 CREDITS)
This course explores social behavior by the individual in the group. This includes action, interaction, dependency and interdependency as well as sensations, anticipation and adaptation.

SSC250 HUMAN RELATIONS AND PERSONALITY DEVELOPMENT (3 CREDITS)
Students examine themselves across four dimensions of the self: their personality, the physical self, the mental self and the emotional self. Students evaluate their future expectations to strengthen their attitudes toward achievement and success and seek ways to improve how they take responsibility for what is expected of them. Students learn practical skills based on four internal components: self-awareness, motivation, self-regulation and adeptness in relationships. Students learn how respecting others creates a positive work environment. Students develop a strategy for positively dealing with change and associated stresses.

SSC271 AMERICAN GOVERNMENT (3 CREDITS)
This course will introduce students to the American governmental system. Students should develop a working understanding of government institutions, political processes, and political behavior. This course will delve into the workings of the three branches of the national government and the role it plays in American society. This class also discusses civil liberties and civil rights.
SSC310 AMERICAN LEGAL SYSTEM  (3 CREDITS)
This course provides students with a fundamental overview of the American legal system. An understanding of the law is important to an understanding of the values of American society; this study is essential to the development of students' sense of justice and responsible judgment. This course is intended to help students understand “law” as a process of restoring, maintaining, and creating social order whose functions are to resolve disputes, facilitate and protect agreement, and constantly examine the legal concepts of a society through maintaining continuity and consistency. The student is expected to develop an analytical and logical understanding of legal principles as opposed to mere memorization of legal rules as they relate to American public policy, constitutional rights, and contractual obligations.

SSC320 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 learn best practices for participating in and leading groups.
Prerequisite(s): FAC125 Collaborative & Interpersonal Communications

SSC350 INTELLECTUAL PROPERTY  (3 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 PROGRAM: MASTER OF SCIENCE COMPUTER SCIENCE

BRETT KOTTER CLASS OF 2009 SOFTWARE DEVELOPER VIVINT.
Neumont University’s Acceptance Committee evaluates students’ potential to succeed in the Master of Science in Computer Science program by evaluating academic potential, work experience, and student motivation.

To apply for admittance to Neumont University the prospective student submits the following documents for review by the Acceptance Committee:
  • Application
  • Proof of Bachelors Degree (official transcripts)
  • Evidence of academic performance, such as GMAT scores or college transcripts

The Acceptance Committee reviews each 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.

As part of the admissions process prospective MSCS students are interviewed by one or more members of the MSCS 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 documents and records have been received. Documents include 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.

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.

Contact the Registrar’s office for a list of authorized evaluation companies.

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 550+ (213+ computer-based score, 79+ internet-based score) are 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 in addition to TOEFL examination scores.

Official test results (SAT or ACT) are recommended.

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

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.

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 are 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 are accepted for transfer on the basis of the report of a credential evaluation service.

Credit are 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 are required to complete any prerequisite courses before taking the graduate courses in those areas.

**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.

Students 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.
# Master of Science in Computer Science Overview

## MSCS Program Plan

<table>
<thead>
<tr>
<th>Required Lecture/Lab Courses</th>
<th>12 Credits Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 required courses</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Seminar Courses</th>
<th>6 Credits Required</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Elective Courses</th>
<th>18 Credits Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Research Projects</td>
<td>18 Credits Required</td>
</tr>
</tbody>
</table>

| Total Required for MS in Computer Science | 54 Credits |

### Lecture/Lab Courses

- **Select three courses from the list below:**
- **CSC520** Enterprise Architecture 4 credits
- **CSC560** Process and Data Patterns 4 credits
- **DBT530** Data Warehousing & Business Intelligence 4 credits
- **MOA535** Business Modeling & System Design 4 credits
- **MOA540** Advanced Information Modeling 4 credits
- **MOA542** Advanced Modeling Topics I 4 credits

### Seminar Courses

- **CSC581** Advanced Computing Seminars I 1.5 credits
- **CSC582** Advanced Computing Seminars II 1.5 credits
- **CSC583** Advanced Computing Seminars III 1.5 credits
- **CSC584** Advanced Computing Seminars IV 1.5 credits
- **CSC585** Advanced Computing Seminars V 1.5 credits
- **CSC586** Advanced Computing Seminars VI 1.5 credits
- **CSC587** Advanced Computing Seminars VII 1.5 credits
- **CSC588** Advanced Computing Seminars VIII 1.5 credits

### Elective Lecture/Lab Courses

- **Select 18 additional credits from any combination of Seminar Courses, Research Project Courses and/or Elective Lecture/Lab Courses.**
- **CSC500** Introduction to Software Development 4 credits
- **DBT500** Business Database Systems 4 credits
- **DBT524** Querying XML Data with XPath & XQuery 4 credits
- **MOA500** Business Information Modeling 4 credits
- **MOA544** Advanced Modeling Topics II 4 credits
- **MOA635** Advanced Model Driven Development 4 credits

### Research Project Courses

- **CSC590-3** Research Project I - 9 hours/week 3 credits
- **CSC590-6** Research Project I - 18 hours/week 6 credits
- **CSC590-9** Research Project I - 27 hours/week 9 credits
- **CSC591-3** Research Project II - 9 hours/week 3 credits
- **CSC591-6** Research Project II - 18 hours/week 6 credits
- **CSC591-9** Research Project II - 27 hours/week 9 credits
- **CSC591-12** Research Project II - 36 hours/week 12 credits

### Total Program Credits

- **54 Credits**
Students are required to play an active role in class proceedings.

CSC500 INTRODUCTION TO SOFTWARE DEVELOPMENT
(4 CREDITS)
This course provides an introduction to software development using Java as an example of a modern programming language. Students gain an understanding of key software concepts while building essential skills in programming. The course encourages the development of professional programming habits, and the ability to produce working solutions at a good level of quality. Students also gain an appreciation of software architectures and methodologies to link software to business requirements. No previous programming experience is required.

CSC520 ENTERPRISE ARCHITECTURE
(4 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 U.S. Office of Management and Budget).

CSC560 PROCESS AND DATA PATTERNS
(4 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, Shipmen, 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.

CSC582 ADVANCED COMPUTING SEMINARS II
(1.5 CREDITS)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics are 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:

- Provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
- Develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.

Students are required to play an active role in class proceedings.

CSC583 ADVANCED COMPUTING SEMINARS III
(1.5 CREDITS)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics are 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:

- Provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
- Develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.

Students are required to play an active role in class proceedings.

CSC584 ADVANCED COMPUTING SEMINARS IV
(1.5 CREDITS)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics are 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:

- Provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
- Develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.

Students are required to play an active role in class proceedings.

CSC585 ADVANCED COMPUTING SEMINARS V
(1.5 CREDITS)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics are 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:
• Develop student skills in the critical assessment of computing concepts, particularly in areas related to technology application.

Students are required to play an active role in class proceedings.

CSC586 ADVANCED COMPUTING SEMINARS VI (1.5 CREDITS)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics are 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:

• Provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
• Develop skills in the critical assessment of computing concepts, particularly in areas related to technology application.

Students are required to play an active role in class proceedings.

CSC587 ADVANCED COMPUTING SEMINARS VII (1.5 CREDITS)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics are 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:

• Provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
• Develop skills in the critical assessment of computing concepts, particularly in areas related to technology application.

Students are required to play an active role in class proceedings.

CSC588 ADVANCED COMPUTING SEMINARS VIII (1.5 CREDITS)
This instructor-led course examines current topics in Computer Science at a graduate level. A different selection of topics are 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:

• Provide students with a good understanding of a range of topics at the forefront of modern Computer Science;
• Develop skills in the critical assessment of computing concepts, particularly in areas related to technology application.

Students are required to play an active role in class proceedings.

CSC590-3 RESEARCH PROJECT I – (3 CREDITS)
9 HOURS PER WEEK
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.
Prerequisites: Instructor Permission

CSC590-6 RESEARCH PROJECT I – (6 CREDITS)
18 HOURS/WEEK
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.
Prerequisites: Instructor approval

CSC590-9 RESEARCH PROJECT I – (9 CREDITS)
27 HOURS/WEEK
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.
Prerequisites: Instructor Permission

CSC590-12 RESEARCH PROJECT I – (12 CREDITS)
36 HOURS/WEEK
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 proceedi-
ings, 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.

Prerequisites: Instructor Permission

**CSC591-3 RESEARCH PROJECT II** – (3 CREDITS) 9 HOURS/WEEK

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.

Prerequisites: Instructor Permission

**CSC591-6 RESEARCH PROJECT II** – (6 CREDITS) 18 HOURS/WEEK

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.

Prerequisites: Instructor Permission

**CSC591-9 RESEARCH PROJECT II** – (9 CREDITS) 27 HOURS/WEEK

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.

Prerequisites: Instructor Permission

**CSC591-12 RESEARCH PROJECT II** – (12 CREDITS) 36 HOURS/WEEK

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.

Prerequisites: Instructor Permission

**CSC592-3 RESEARCH PROJECT III** – (3 CREDITS) 9 HOURS/WEEK

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.

Prerequisites: Instructor Permission

**CSC592-6 RESEARCH PROJECT III** – (6 CREDITS) 18 HOURS/WEEK

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.

Prerequisites: Instructor Permission

**CSC592-9 RESEARCH PROJECT III** – (9 CREDITS) 27 HOURS/WEEK

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.

**Prerequisites:** Instructor Permission

**CSC592-12 RESEARCH PROJECT III –** (12 CREDITS)
**36 HOURS/WEEK**
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. Students 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.

**Prerequisites:** Instructor Permission

**CSC593-3 RESEARCH PROJECT IV –** (3 CREDITS)
**9 HOURS/WEEK**
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. Students 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.

**Prerequisites:** Instructor Permission

**CSC594-6 RESEARCH PROJECT IV –** (6 CREDITS)
**18 HOURS/WEEK**
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.

**Prerequisites:** Instructor Permission

If the theoretical content is sufficient (e.g. detailed discussion of new algorithms developed by the student), no software specification or coding is required.

**Prerequisites:** Instructor Permission

**CSC593-9 RESEARCH PROJECT IV –** (9 CREDITS)
**27 HOURS/WEEK**
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. Students 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.

**Prerequisites:** Instructor Permission

**CSC594-12 RESEARCH PROJECT IV –** (12 CREDITS)
**36 HOURS/WEEK**
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. Students 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.

**Prerequisites:** Instructor Permission

**CSC594-3 RESEARCH PROJECT V –** (3 CREDITS)
**9 HOURS/WEEK**
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.

**Prerequisites:** Instructor Permission

**CSC594-6 RESEARCH PROJECT V –** (6 CREDITS)
**18 HOURS/WEEK**
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. Students 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.

Prerequisites: Instructor Permission

CSC595-3 RESEARCH PROJECT VI – (3 CREDITS) 9 HOURS/WEEK
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. Students 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.

Prerequisites: Instructor Permission

CSC595-6 RESEARCH PROJECT VI – (6 CREDITS) 18 HOURS/WEEK
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. Students 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.

Prerequisites: Instructor Permission

CSC596-3 RESEARCH PROJECT VII – (3 CREDITS) 9 HOURS/WEEK
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. Students 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.

Prerequisites: Instructor Permission

CSC597-3 RESEARCH PROJECT VIII – (3 CREDITS) 9 HOURS/WEEK
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. Students 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.

Prerequisites: Instructor Permission

DBT500 BUSINESS DATABASE SYSTEMS (4 CREDITS)
Relational databases underpin the majority of today’s business information systems. This course provides students with a working knowledge of relational database technology, emphasizing its application in practical information systems. The course covers the relational model of data, and the use of the industry-standard SQL language as a means of defining, manipulating, and controlling databases. Students use modern relational database management systems (such as SQL Server and DB2) to apply their knowledge.

DBT524 QUERYING XML DATA WITH XPATH AND XQUERY (4 CREDITS)
XML has become the standard approach for representing structured data in a form that can be transferred between computer systems. XML can be used to capture a wide range of information, from highly structured (such as tables of statistics) to relatively loosely structured (such as a book). This course provides students with the basic knowledge and skills required to extract meaningful information from XML documents of all kinds. The course is based on the XPath and XQuery languages defined by the World Wide Web Consortium (W3C).

Prerequisites: DBT230 Databases II or equivalent

DBT530 DATA WAREHOUSING AND BUSINESS INTELLIGENCE (4 CREDITS)
This course explores a number of topics in business intelligence systems, especially data warehousing. Students 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 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.

Prerequisites: DBT230 Databases II or equivalent
**MOA500 BUSINESS INFORMATION MODELING**  (4 CREDITS)
This course provides a solid basis for modeling business information and business rules at a conceptual level, and transforming high level information models into relational database schemas for implementation in practical database management systems. While it's conceptual emphasis is on Object-Role Modeling (ORM) it also covers the class diagramming technique within the Unified Modeling Language (UML), and discusses how to transform ORM models into UML class models.

**MOA535 BUSINESS MODELING AND SYSTEM DESIGN**  (4 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 learn how to use modern tools to facilitate the production of enterprise-scale applications.
Prerequisites: Students must have successfully completed at least one of the following: Neumont University course MOA235 Introduction to Model Driven Development or an acceptable equivalent course, or a minimum of two years experience in specifying, procuring, or developing business-facing software applications.

**MOA540 ADVANCED INFORMATION MODELING**  (4 CREDITS)
This course covers further concepts in modeling business information and business rules. Selection are 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.
Prerequisites: MOA240 Information Modeling II or equivalent

**MOA542 ADVANCED MODELING TOPICS I**  (4 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, normalization/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.
Prerequisites: MOA240 Information Modeling II

**MOA544 ADVANCED MODELING TOPICS II**  (4 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). Selections are 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.
Prerequisites: MOA240 Information Modeling II

**MOA635 ADVANCED MODEL DRIVEN DEVELOPMENT**  (4 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.
Prerequisites: Students must have successfully completed at least one of the following: MOA435 Model Driven Development II or MOA535 Business Modeling and System Design or an acceptable equivalent course, or a minimum of two years experience in developing business-facing software applications using a modern object-oriented programming language.
STUDENT AFFAIRS

HOUSING AND RESIDENCE LIFE
A far cry from traditional dorm life, Neumont housing offers affordable, furnished, apartment-style living close to campus. Student activities find a nucleus here.

See www.neumont.edu/studenthousing for more information.

All housing is fully furnished, including:
• Laundry facilities
• Couches
• Beds
• Studios, one, and two bedroom apartments
• Shared by up to four students.

STUDENT ADVISING
Advising encompasses several important areas of student life. The school advises and assists students in course selection and registration, dropping and adding courses, and meeting graduation requirements.

LIBRARY
The goal of the Dale Hull Learning Center is two fold:
• Serve the information needs of students and faculty members of the Neumont University community
• 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 online 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 Learning Center is overseen by the Learning Center Director and the Office of Academic Operations, which works with faculty to ensure that library collection remains current.

Information about the Learning Center is available online at: www.neumont.edu/library.

CAREER SERVICES
The Office of Career Services assists graduates in identifying potential career paths, a positive self-image, technical competencies, and career expectations. Upon completion of the program, Neumont University will assist graduates in locating career opportunities in their field of study. We have established strong relationships with potential employers and foster these relationships as they help us identify what the industry considers necessary technologies and valuable skills for the success of our graduates.

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

More information about the career services program can be found in the results section of www.neumont.edu.
UNIVERSITY POLICIES

CELESTE ROBY
BARRY NIX
GREG WHELAN
NEUMONT ALUMNI
FAMILIARITY WITH UNIVERSITY REGULATIONS
The Course Catalog and Student Handbook, made available to all students on the Neumont website, set forth the policies and regulations under which the institution operates. It is the responsibility of the student to familiarize themselves 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 Chief Academic Officer upon written request and for reasonable cause. The total credits specified in each area of the degree are the minimum requirements for completion.

CAMPUS SECURITY
In compliance with the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, a federal law, crime statistics and campus security policies are available through the Office of Student Affairs and on the Neumont University website.

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
- Being (or appearing to be) under the influence of alcohol or illegal drugs, possession or consumption (use of alcohol/drugs) on campus
- Harassing or abusive acts which invade an individual’s right to privacy, including sexual harassment or abuse against members of a particular sexual orientation, 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

Note: This list is not exhaustive. To view the full version of the Student Code, please refer to the Student Handbook.

The University reserves the right to suspend or dismiss any student at any time when such action is deemed to be in the best interest of the student or the student body. Dismissal may be the result of misconduct; poor academic performance – even when the student has met Satisfactory Academic Progress requirements – or in response to other compelling indications that a student may not be successful at Neumont; a student is deemed mentally or medically unfit for school enrollment; or due to other factors that warrant separating a student from school.

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.

Academic misconduct includes, but is not limited to:

- use of any unauthorized assistance in taking quizzes, tests, or examinations;
- use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
- the acquisition, without permission, of tests or other academic material belonging to a member of the university faculty or staff;
- engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion;
- unauthorized file sharing (authorized file sharing guidelines for a class are defined by the instructor); copying work or allowing work to be copied in whole or in part through any means (electronic copy, printed copy, manually-created copy, etc.);
• collaboration beyond the scope that is allowed by the instructor;
• using deceit to gain academic credit; plagiarism.

Acts of academic dishonesty are also 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 also includes: submitting false documentation for excused absence requests, or other deceit used to gain academic credit.

Note: This list is not exhaustive. To view the full version of the Student Code, please refer to the Student Handbook.

ALCOHOL AND SUBSTANCE ABUSE STATEMENT
The University does not permit or condone the use or possession of alcohol, marijuana, or any 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 program 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, are 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 Affairs. Individuals needing treatment or rehabilitation are referred to an appropriate community resource. Neumont University does not assume the responsibility for the cost incurred for drug treatment or rehabilitation.

SEXUAL HARASSMENT
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, are 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 Affairs is responsible for receiving and investigating complaints of sexual harassment involving a 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 Affairs.

JUDICIAL PROCEDURES
Students who violate school policies, including the Student Code, Housing Rules and Regulations, instructions from a faculty member, the Acceptable Use Policy, or other school policies are subject to judicial sanctions which may include suspension or dismissal from the University. Judicial procedures are handled through the Office of Student Affairs. Details of the appeal process can be found in the Student Code, located in the Student Handbook.

STUDENT COMPLAINTS
Generally, complaints should be directed to the Office of Student Affairs. If Student Affairs is not able to address the student’s complaint, the student may seek additional assistance from the following:

- Academic concerns: Office of Academic Operations
- Operational issues or concerns: Office of the President

If a student feels that the University has not adequately addressed a complaint or concern, the student may consider contacting ACICS 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 146704, Salt Lake City, UT 84114-6704, (801) 530-6601.

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

**NON-DISCRIMINATION**

Neumont University does not discriminate on the basis of race, color, national origin, sex, sexual orientation, 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 or activities.

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 undue hardship.

**GRADE APPEALS**

Grade appeals must be submitted to the Registrar no later than the first day of the quarter following the quarter for which a grade is being appealed. Appeals received after the first day of the quarter may not be considered. The Appeals Committee will meet in a timely manner, as needed, to consider grade appeals. Please contact the Office of the Registrar for the proper grade appeal documents and procedures.

**FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974**

The Family Educational Rights and Privacy Act (FERPA), a federal law, affords students certain rights with respect to their education records, including:

1. The right to inspect and review the student’s education records within 45 days of the day the University receives a request for access. A student should submit to the Registrar a written request that identifies the record(s) the student wishes 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. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate, misleading, or otherwise in violation of the student’s privacy rights under FERPA. A student who wishes to ask the University to amend a record should write the University official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the University decides not to amend the record as requested, the University will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures are provided to the student when notified of the right to a hearing.

3. The right to provide written consent before the University discloses personally identifiable information from the student’s education records, except to the extent that FERPA authorizes disclosure without consent. The University discloses education records without a student’s prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted as its agent to provide a service instead of using University employees or officials (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 school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University.

Upon request, the University also discloses education records without consent to officials of another school in which a student seeks or intends to enroll.
(4) 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:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5902

NOTICE FOR DIRECTORY INFORMATION
FERPA requires that Neumont University, with certain exceptions, obtain your written consent prior to the disclosure of personally identifiable information from your education records. However, Neumont may disclose appropriately designated "directory information" without written consent, unless you have advised the University to the contrary in accordance with Neumont procedures.

The primary purpose of directory information is to allow Neumont University to include information from your educational records in certain school publications. Examples include:
- academic and attendance recognition
- commencement programs
- promotional material on behalf of the University

Directory information, which is information that is generally not considered harmful or an invasion of privacy if released, can also be disclosed to outside organizations without a student’s prior written consent.

Neumont University has designated the following student information as directory information:
- Name
- Participation in officially recognized activities
- Address
- Telephone listing
- Electronic mail address
- Photograph
- Degree program in which the student is enrolled
- Degrees, honors, and awards received
- Date and place of birth
- Dates of attendance
- Cohort number
- Personal websites
- Internal and Enterprise Project topics and partners
- The most recent educational agency or institution attended

More information on Neumont’s FERPA policy is available on the website.
SCHOLARSHIPS AND FINANCIAL AID

JOSH BAMBRICK
CLASS OF 2011
ASCENDANT
SOFTWARE DEVELOPER
SCHOLARSHIPS AND FINANCIAL AID

Paying for college is a challenge for most students and their families. Neumont University provides assistance through the Office of Financial Aid to help students formulate a plan to fund their education. Financial aid is available for those who qualify.

Scholarships for new students are announced every year, in the fall.

Sources of funding for a Neumont education include:
- Neumont scholarships, including merit-based, need-based, resident-based and matching scholarships
- Federal grants: Federal Pell Grants, Federal Supplemental Education Opportunity Grants (FSEOG), Iraq & Afghanistan Service Grants (IASG), and Post-9/11 GI Bill grants, such as the Yellow Ribbon Program
- Federal loans: Federal Direct Subsidized Student Loans, Federal Direct Unsubsidized Student Loans, and Federal Direct PLUS Loans
- Private lending options
- Veterans assistance programs
- Alternative financing programs

Since the primary responsibility for the education of a student rests with the student and his or her family, it is presumed that the student and the family will make the maximum effort to provide for the expenses of an undergraduate education. Financial aid, regardless of the source, should always be considered a supplement to, not a substitute for, family financial support.

NEUMONT SCHOLARSHIPS

Neumont University has allocated $2,000,000 in scholarships (financial aid awarded by the institution that does not have to be repaid by students) to reduce the cost of attendance for first-time, full-time students entering in the fall of 2013. This translates into an average tuition scholarship rate of 17%, though individual tuition scholarship rates vary by student, depending on academic achievement, need, and residency at the time of application.

APPLYING FOR SCHOLARSHIPS

To apply for scholarships, incoming students must complete the Neumont University Application for Admission and provide any additional information noted in the description of each scholarship. Any required additional materials must be received, in their entirety, by the Scholarship Committee before the published deadline. For scholarship application deadlines, contact the Office of Admissions or visit www.neumont.edu/scholarships. Send all additional materials to scholarship@neumont.edu.

Students are encouraged to submit their Application for Admission and any supplemental materials promptly, since Neumont scholarships are awarded on a first-come, first-served basis.

There are four types of Neumont scholarships:
- Merit-based scholarships, are available to undergraduate and graduate students who have demonstrated superior academic performance in high school or college, as determined by the Neumont Scholarship Committee.
- Need-based scholarships, are available to undergraduate students with demonstrated financial need, as determined by the student’s Expected Family Contribution (EFC) derived from the Free Application for Federal Student Aid (FAFSA).
- Utah resident scholarships, are available to undergraduate students who meet specific Utah residency requirements.
- Matching scholarships, are available to undergraduate students who have been awarded a scholarship by another organization, such as a philanthropic organization or foundation.

All Neumont scholarships are governed by the following rules:
- Scholarships are only available to full-time students making normal progress. Normal progress is defined as ten continuous quarters from the first date of attendance through graduation (twelve quarters for students enrolled in the BSGD program). Any student who drops below full-time status may forfeit his or her scholarship. Exceptions may be considered for students with unexpected family or health events, or students withdrawing or deferring enrollment for full-time humanitarian, community, military, or religious service.
- Any changes to the Enrollment Agreement between the student and Neumont University may result in the loss of a scholarship award. However, students who transfer from the BSCS program to the BSTM, BSIS, BSWD, or BSGD programs will maintain their award at the time of enrollment until the end of the standard degree program duration.
(10 quarters for the BSCS, BSIS, BSTM, and BSWD programs, or 12 quarters for the BSGD program).

- Scholarship awards expire at the end of the standard degree program duration. The clock for the standard enrollment period beings on a student’s first day of class and expires at the conclusion of the 10th quarter for BSCS, BSIS, BSTM, and BSWD programs, and the 12th quarter for the BSGD program.
- Any changes to the Enrollment Agreement between the student and the University may result in the loss of a scholarship.
- The total dollars available to be applied to a student’s account may not exceed, on a cumulative basis, more than 100% of charges for tuition. Scholarship awards to any student, for any quarter, are limited to the total amount of tuition due that quarter.
- Scholarships are awarded at the time of enrollment only. All decisions of the Scholarship Committee are final.
- Scholarships are subject to cancellation on delinquent accounts.

In addition to scholarship specific requirements, all scholarships are subject to forfeiture for:

- Poor academic performance
- Judicial infractions, including academic misconduct
- Delinquent student accounts
- Withdrawal from continuous enrollment
- Failure to meet cumulative Grade Point Average (cGPA) requirements

**UNDERGRADUATE SCHOLARSHIPS**

The following scholarships are offered to new students entering in the fall of 2013.

**NEUMONT MERIT SCHOLARSHIPS**

Merit-based scholarships are awarded to first-time, entering students who have demonstrated superior academic performance in high school or college. Prospective students who would like to be considered for any Neumont merit scholarship should:

- Complete Neumont’s Application for Admission
- Submit high school transcripts
- Submit transcripts for any post-secondary education (if applicable)
- Submit an official standardized test score (ACT or SAT). Significant work experience may be counted in lieu of a standardized test score.

Merit scholarships are applied to quarterly tuition costs and awarded for each academic calendar year. An academic calendar year is defined as three quarters (nine months).

- Merit scholarship recipients must maintain a cGPA of 3.25 or higher (3.5 for Presidential Scholarships). Students whose cGPA drops below 3.25 in an academic year will forfeit their merit scholarship in the next academic year, as described in the Scholarship Probation and Reinstatement section.

In addition, merit scholarship recipients must maintain full-time enrollment and abide by student conduct standards, as outlined in the current edition of the Student Handbook.

There are three types of merit-based scholarships:

**PRESIDENTIAL SCHOLARSHIP**

Neumont reserves Presidential Scholarships for the most academically accomplished applicants who have submitted an application by the General Acceptance deadline.

Selected applicants are awarded either a 100% or 75% tuition scholarship for the entire program. Presidential Scholarship recipients may not receive any other Neumont scholarship (Achievement, Access, Utah Resident, or Outside Scholarship Match).

**ACHIEVEMENT SCHOLARSHIP**

To encourage enrollment of highly-qualified students who demonstrate superior academic competency and skill, Neumont University grants merit-based scholarships of $5,000 to $12,500 for the entire program (up to $1,250 per academic quarter) for the 10-quarter BSCS, BSIS, BSTM, and BSWD programs, or $6,000 to $15,000 for the entire program (up to $1,250 per academic quarter) for the 12-quarter BSGD program.

**INTERNATIONAL SCHOLARSHIP**

To encourage the enrollment of highly qualified international students, Neumont University awards international students merit scholarships of $5,000 to $6,250 for the entire program (up to $625 per academic quarter) for the 10-quarter BSCS, BSIS, BSTM, and BSWD programs, or $6,000 to $7,500 for the entire program (up to $625 per academic quarter) for the 12-quarter BSGD program.

**NEUMONT NEED-BASED SCHOLARSHIPS**

Neumont’s need-based scholarships are awarded to first-time, entering students who have demonstrated financial need. These scholarships are designed to assist students and their families, regardless of academic performance.
ACCESS SCHOLARSHIP

Neumont’s Financial Aid Department awards Access Scholarships of $5,000 to $10,000 for the entire program (up to $1,000 per academic quarter) for the 10-quarter BSCS, BSIS, BSTM, and BSWD programs, or $6,000 to $12,000 (up to $1,000 per academic quarter) for the 12-quarter BSGD program. Need is determined by the student’s Expected Family Contribution (EFC) derived on the Free Application for Federal Student Aid (FAFSA). Access Scholarships are applied to quarterly tuition costs and awarded for each academic year. An academic year is defined as three quarters (nine months).

Annual renewal of Access Scholarships is not automatic. Students must reapply each academic year (every three quarters). Depending upon calculated need in subsequent years, Access Scholarship awards may vary from one academic year to the next. Factors that are used to determine the annual Access scholarship award include family income, assets, household size, and number of family members in college, as declared on the FAFSA.

Prospective students who would like to be considered for need-based scholarships should:

- Complete Neumont’s Application for Admission
- Complete the FAFSA
- Complete Neumont’s Financial Aid Worksheet

Access Scholarship recipients must maintain a cGPA of 2.50 or higher. Students who forfeit scholarship eligibility in an academic year due to inadequate cGPA will forfeit their Access Scholarship for the next academic year, as described in the Scholarship Probation and Reinstatement section of this Catalog. In addition, Access Scholarship recipients must maintain full-time enrollment status and abide by student conduct standards, as outlined in the current edition of the Student Handbook.

TRANSFER SCHOLARSHIP

To encourage the enrollment of highly qualified transfer students, Neumont University awards transfer students who have earned an Associate’s degree or Bachelor’s degree from an accredited institution merit with cGPA of 2.50 or higher, a transfer scholarship of $10,000 for the entire program ($500 per academic quarter) for the 10-quarter BSCS, BSIS, BSTM, and BSWD programs, or $12,000 for the entire program ($500 per academic quarter) for the 12-quarter BSGD program.

NEUMONT UTAH RESIDENT-BASED SCHOLARSHIPS

To encourage the enrollment of highly qualified Utah students, Neumont awards Utah Resident Scholarships to first-time, full-time students who are residents of Utah. Awards are $4,000 for the entire 10-quarter BSCS, BSIS, BSTM, and BSWD programs ($400 per academic quarter) and $4,800 for the entire 12-quarter BSGD program ($400 per academic quarter).

Eligible students must meet the following qualifications:

- For 2013 (or later) high school graduates: who graduated from a Utah high school, as evidenced by the presentation of a diploma awarded by a Utah high school.
- For 2012 (or earlier) high school graduates: Utah residency for 12 months prior to the first day of classes, as evidenced by the presentation of a Utah driver’s license or other government-issued identification, or other University-approved proof of residency.
- Utah high school graduates who did not live in the state of Utah in the 12 months prior to the first day of classes are not eligible for this scholarship. Exceptions may include students who meet the qualifications to be considered Utah residents, but were living outside of Utah, as a result of full-time humanitarian, community, military, or religious service.
- Only first-time applicants meeting the residency requirements are eligible for the Utah scholarship.

While there are no cGPA requirements for the Neumont Utah Resident Scholarship, recipients must maintain full-time enrollment status and abide by student conduct standards, as outlined in the current edition of the Student Handbook.

NEUMONT OUTSIDE SCHOLARSHIP MATCH

To encourage the attendance of students who have been awarded a scholarship by a private sector company, a philanthropic organization, or a foundation, Neumont will match up to $5,000 of the award in the first academic year (three quarters). Outside scholarships exclude any federal or state government scholarship or grant programs, such as the Pell Grant or Post-9/11 GI Bill grants, as well as any Neumont scholarships.

SCHOLARSHIP FORFEITURE

Students will forfeit their scholarship award in a given academic year for one or more of the following reasons:

- Their cGPA falls below the specified level for the scholarship and they have exhausted their scholarship probation period.
- They withdraw from full-time enrollment. Students may petition the Dean of Students to maintain scholarships when exceptional circumstances require less than full-time enrollment. Any exceptions must be approved by the Dean of Students in writing.
- They have violated other Neumont University standards, as outlined in the current edition of the Student Handbook and other publications referenced in the handbook—such as Housing Rules and Regulations, Acceptable Use Policy, and course syllabi.
- Forfeiture of scholarship awards is at the discretion of the Student
Conduct Administrator.

- Forfeiture of scholarship may occur as a consequence of a first or subsequent offense—depending on the severity and nature of the offense.
- The period of scholarship ineligibility may range from one quarter to the duration of a student’s enrollment at Neumont.

UNDERGRADUATE SCHOLARSHIP GUIDELINES

- Students who forfeit their Achievement, Presidential, or Access scholarship due to an inadequate cGPA in a given quarter are granted a scholarship probationary period for the remaining quarters of the academic year (an academic year is three quarters). For example, if a student’s cGPA falls below the requirement for a Neumont scholarship in the first quarter of the academic year, he/she will maintain that scholarship for the remaining two quarters of the academic year.
- If, at the end of the academic year, the student’s cGPA remains below the scholarship requirement, the scholarship is lost for the following academic year.
- Students who forfeit a scholarship due to inadequate cGPA during their standard enrollment period may be eligible for scholarship reinstatement in the next academic year if they meet or exceed the minimum scholarship cGPA requirement by the start of the next academic year. Any student who has regained the required cGPA during an academic year may request a re-evaluation of his/her cGPA by the Registrar.
- Reinstated scholarships are awarded for subsequent quarters, but are not awarded retroactively.
- Presidential scholarship recipients who forfeit their scholarship may be eligible to receive an Achievement Scholarship ($1,250 per academic quarter) if they have a cGPA of 3.25 or above and, if they are a Utah resident, a Utah Resident Scholarship ($400 per academic quarter) during the forfeiture period. In addition, if they submit a FAFSA, they are qualified to receive the appropriate need-based scholarship, as outlined in the scholarship matrix.
- Scholarships lost due to a violation of University standards resume in the quarter after completion of a scholarship ineligibility period, as determined by the Student Conduct Administrator.

MAINTAINING GRADUATE SCHOLARSHIP AWARDS

Scholarship recipients must maintain a minimum 3.50 cGPA for continued scholarship eligibility. Scholarship recipients whose cGPA drops below the 3.50 minimum are given one quarter to remediate their cGPA and meet the requirement. Failure to remediate one’s cGPA in the allotted timeframe will result in scholarship ineligibility for the duration of the program.

Please note the following information regarding Neumont graduate scholarships:

- All decisions of the Neumont University Scholarship Committee are final.
- Scholarship awards to any student, for any quarter, are limited to the total amount of tuition due that quarter.
- Scholarships are subject to cancellation for:
  - Poor academic performance
  - Judicial infractions, including academic misconduct
  - Delinquent student accounts
  - Withdrawal from continuous enrollment
  - Failure to meet cGPA requirements

FEDERAL STUDENT AID PROGRAMS

All Title IV financial aid funds received by the University are 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 FINANCIAL AID ELIGIBILITY

To be eligible for federal student aid, you must:

- Enrolled as a regular student in an eligible program of study on at least a half-time basis;
- Have a high school diploma or the equivalent;
- A U.S. citizen, or an eligible non-citizen;
- Demonstrate financial need (for most programs);
- Maintain Satisfactory Academic Progress;
- Sign statements on the FAFSA that you are not in default on a federal student loan and do not owe money on a Federal student grant, and you will use Federal student aid only for educational purposes.
• Register for the Selective Service, if a male born after December 31, 1959; and
• Have a valid Social Security number.

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 U.S. Department of Education.

The amount of grant available to the student will depend on the Expected Family Contribution (EFC) and the Cost of Attendance (COA). See www.fafsa.gov for current amounts.

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 a college education. Students or prospective students may secure an application to participate in the Federal Pell Grant program from the Office of Financial Aid or from a high school counselor.

The application are transmitted electronically through a federally approved needs analysis system that will determine the applicant's EFC.

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

IRAQ AND AFGHANISTAN SERVICE GRANT
For students who are not Pell-eligible due only to having less financial need than is required to receive Pell funds; whose parent or guardian died as a result of military service in Iraq or Afghanistan after the events of 9/11; and who, at the time of the parent’s or guardian’s death, were less than 24 years old or were enrolled at least part-time at an institution of higher education. The maximum grant is the same as Pell maximum; payment adjusted for less-than-full-time study. Grants do not need to be repaid.

FEDERAL DIRECT LOANS
Eligible students and parents may borrow directly from the U.S. Department of Education to attend participating schools. Direct Loans include Direct Subsidized and Unsubsidized Direct Loans, Direct PLUS Loans, and Direct Consolidation Loans.

FEDERAL DIRECT SUBSIDIZED LOANS
Subsidized loans are available to undergraduate students with financial need. They may be deferred while the student is enrolled at least half time and for a period of six months beyond the student’s last date of attendance (grace period). During this period the interest is paid by the U.S. Department of Education. The annual limit for Subsidized loans is as follows:
• $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.

The maximum Subsidized loan indebtedness for a graduate student is $138,500 with no more than $65,500 of this amount being in subsidized loans.

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

Any origination and insurance premium fees are deducted proportionately from each disbursement and paid to the federal government.

UNSUBSIDIZED FEDERAL DIRECT LOANS
Unsubsidized Direct loans are available to students without requiring demonstrated financial need. An unsubsidized Direct loan is not awarded based on need. The term “unsubsidized” means that interest is not paid by the U.S. Department of Education for the student during the “in-school” period.

If the student is an independent student or a dependent undergraduate student whose parents are unable to get a PLUS loan, he or she may borrow up to:
• $9,500 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.)
• $10,500 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.)
• $12,500 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 are less than those previously listed. The maximum total indebtedness for an independent undergraduate student is $57,500. (No more than $23,000 of this amount may be in subsidized loans.)

The student is charged an origination fee/insurance premium on the amount of the unsubsidized loan. The fee is deducted proportionately from each disbursement and paid to the federal government.

**DIRECT PLUS LOANS**

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 an origination fee on a PLUS loan and a fixed interest rate. The payment schedule is determined by the total amount borrowed. For information on federal student aid programs, visit: www.studentaid.gov.

**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 other sources of financial aid, both federal and private, he or she may apply for a University-funded loan, which is serviced by Tuition Options. 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 alternative loan programs may be obtained by visiting the Office of Financial Aid.

**EDUCATION BENEFITS FOR VETERANS**

Programs at Neumont University are approved for veterans training.

**POST-9/11 GI BILL - CHAPTER 33**

An individual who served a minimum of 90 days on active duty after September 10, 2001, may be eligible for educational assistance under the Post-9/11 GI Bill. Active duty served as a member of the Armed Forces or as a result of a call or order to active duty from a reserve component under section 688, 12301(a), 12301(d), 12303(g), 12302, or 12304 of Title 10 is qualifying active duty service.

In general an individual’s eligibility to use Chapter 33 benefits expires 15 years from the date of the last discharge or release from active duty of at least 90 consecutive days. Individuals eligible under Chapter 33 are typically entitled to 36 months of educational assistance. Individuals are limited to a maximum of 48 months of entitlement when using benefits under two or more programs.

Eligible students receive a percentage of the Chapter 33 benefit for tuition and fees, monthly housing allowance, and book stipend based on their length of service. The percentage is determined by the student’s aggregate active duty service after September 10, 2001. All creditable active duty and qualifying call-up service are combined to determine the aggregate service.

The Department of Defense (DoD) offers members of the Armed Forces the opportunity to transfer Chapter 33 benefits to their spouse or dependent children. If a member of the Armed Forces (active duty or Selected Reserve) serves six years and reenlists for 4 more years or has at least 10 years of service, then transfer of entitlement (ToE) is possible. For more information on the Chapter 33 benefits, visit http://www.gibill.va.gov/benefits/post_911_gibill/index.html.

**YELLOW RIBBON PROGRAM**

The Yellow Ribbon Program payment is paid directly to the school on behalf of the student when the school’s enrollment certification is processed.

- Only individuals entitled at the 100% benefit level (or their dependents using transferred entitlement) may receive Yellow Ribbon funding
- Students who served at least 36 months or more on active duty, and,
- Students who served at least 30 continuous days on active duty, and were discharged due to service-connected disability

The following are not eligible for the Yellow Ribbon Program

- Active Duty personnel
- Spouses of Active Duty personnel using Transferred Entitlement
- Fry Scholarship recipients
The program allows schools to enter into an agreement with VA to fund the tuition and fees cost that exceeds the basic tuition and fees amount payable by VA. It can provide additional funding to students whose tuition and fees charge exceeds the in-state, undergraduate cap (before August 1, 2011); or charges for out-of-state tuition, or charges in excess of the yearly cap for students enrolled in private institutions (after August 1, 2011).

VA will match each dollar the school contributes up to 50% of the difference between the basic tuition and fees amount payable by VA and the tuition and fee amount charged the student.

The combined school and VA contribution can't exceed the tuition and fee amount charged the student.

For more information on the Yellow Ribbon Program, visit http://www.gibill.va.gov/benefits/post_911_gibill/yellow_ribbon_program.html

**Fry Scholarship**

Effective August 1, 2009, the Fry Scholarship provides benefit eligibility for children of active duty members of the Armed Forces who died in the line of duty after September 10, 2001.

Eligible children:
- May be married or over 23 and still be eligible
- Are entitled to 36 months of benefits at the 100% level
- Have 15 years to use the benefit beginning on their 18th birthday
- May use the benefit until their 33rd birthday
- Are not eligible for the Yellow Ribbon Program

For more information on the Fry Scholarship, visit http://www.gibill.va.gov/documents/factsheets/fry_scholarship.pdf.

**Montgomery GI Bill (MGIB) – Chapter 30**

Chapter 30 benefits generally apply to Veterans who began active duty service for the first time after June 30, 1985, had their pay reduced $100 a month for 12 months, and received an honorable discharge.

Chapter 30 benefits are paid on a monthly basis directly to the veteran.

For more information on Chapter 30 benefits, visit http://www.gibill.va.gov/benefits/montgomery_gibill/index.html.

**Dependents Educational Assistance (DEA) – Chapter 35**

Educational Assistance paid to dependents of Veterans who have a service connected permanent and total disability or died as a result of service connection. Persons who may be eligible are:
- A child (between ages 18 and 26, with some exceptions) of a veteran who is permanently and totally disabled due to a service-related condition; or who died in service; or who died of a service-connected disability; or who died while evaluated as having total and permanent service-connected disability; or who is listed as a POW or MIA.
- The surviving spouse of a veteran who died of a service-connected disability, or died in service, or died while evaluated as having total and permanent disability resulting from a service-connected disability. Surviving spouses whose benefits stopped when they remarried can receive DEA benefits again if their remarriage ends by death or divorce, or they cease to live with the person to whom they presented themselves in public as married.

**Dependents Educational Assistance (DEA) – Chapter 35 - Continued**

- A spouse of a veteran or serviceperson who has a total and permanent disability resulting from a service-connected disability; or who is listed as a POW or MIA.
- The spouse or child of a service member who is hospitalized or receiving outpatient treatment for a service connected permanent and total disability and is likely to be discharged for that disability.

For more information on Chapter 35 benefits, visit http://www.gibill.va.gov/benefits/other_programs/dea.html.

**Montgomery GI Bill-Selected Reserve (MGIB-SR) – Chapter 1606**

Chapter 1606 is an educational program for members who are actively participating in the Selected Reserve. Selected Reserve components include the Army Reserve, Naval Reserve, Air Force Reserve, Marine Corps Reserve, Coast Guard Reserve, Army National Guard, and Air National Guard.

The Department of Defense and the Department of Homeland Security (Coast Guard) determine who's eligible for Chapter 1606. The Department of Veterans Affairs administers the program and pays benefits.

Basic eligibility requires a 6-year obligation to serve in the Selected Reserve and satisfactory participation in required Selected Reserve training. Chapter 1606 benefits are paid on a monthly basis directly to the reservist.

For more information on Chapter 1606 benefits, visit http://www.gibill.va.gov/benefits/montgomery_gibill/selected_reserve.html.

**Reserve Educational Assistance Program (REAP) – Chapter 1607**

This is an educational program for active members of the Selected
The Chapter 1607 benefit pays a percentage of the Chapter 30 three-year or more rate based on the number of continuous service days on active duty: 90 days but less than 1 year pays 40%, 1 year but less than 2 years pays 60%, and service of two continuous years or of an aggregate of three years or more pays 80% payment of the three-year rate. The 80% rate can be paid for two continuous years or an aggregate call-up service of three years or more. Chapter 1607 benefits are paid on a monthly basis directly to the veteran.

For more information on Chapter 1607 benefits, visit http://www.gibill.va.gov/benefits/other_programs/reap.html.

VETERANS’ EDUCATION ASSISTANCE PROGRAM
(VEAP) – CHAPTER 32
VEAP is available if you first entered active duty between January 1, 1977 and June 30, 1985 and you elected to make contributions from your military pay to participate in this education benefit program.
For more information on Chapter 32 benefits, visit http://www.gibill.va.gov/benefits/other_programs/veap.html.

VOCATIONAL REHABILITATION – CHAPTER 31
A veteran may be eligible for Vocational Rehabilitation and Employment (VR&E) benefits if he or she:
• Has received, or will receive, a discharge that is other than dishonorable
• Has a service-connected disability rating of at least 10%, or a memorandum rating of 20% or more from the Department of Veteran Affairs (VA)
• Applies for Vocational Rehabilitation and Employment (VR&E) VetSuccess services

The basic period of eligibility in which VR&E's VetSuccess services may be used is 12 years from the latter of:
• The date of separation from active military service, or
• The date the veteran was first notified by VA of a service-connected disability rating

For more information on Vocational Rehabilitation benefits, visit http://www.vba.va.gov/bln/vre/.
FINANCIAL INFORMATION

TYLER GARLIK
DANNY WARREN
JONATHAN ROSS
TAYLOR AYCOCK
CLASS OF 2009
TUITION AND FEES

TUITION AND FEES
Tuition is billed quarterly and based on the full-time rate, in accordance with the chart below, subject to change. Expected length of attendance for undergraduates is ten (10) quarters (12 quarters for BSGD students), assuming a normal rate of progress. The calendar contains four quarters. However, the academic year is three quarters.

UNDERGRADUATE

Application fee (non-refundable) $35 ($125 Int’l)
Required of all applicants

Registration Fee $100
Required of all first-time students, not refundable

Tuition for students enrolled by October, 2013 $7,200 per quarter

Tuition for students enrolled after January, 2014 $7,500 per quarter

Tuition for part-time students only $495 per QCH
Per quarter credit hour (QCH), assessed in place of the quarterly charge, only when the student is carrying less than 12 units per quarter.

Student Activity and Facility Usage Fee $150 per quarter

Technology Fee* $350 per quarter
* Various courses may require a lab or software fee

Neumont Approved Laptop purchase price estimate* $2,500
* Price is estimated, See accepted.neumont.edu for model information. Neumont approved laptops purchased through Neumont’s designated laptop vendor are required student material. Outside equipment is not permitted for instructional use.

For those who qualify, laptops may be purchased using Financial Aid. Any laptop purchased using Financial Aid is the property of Neumont University until paid in full by the funding source (federal or private lender). Students who withdraw owing a balance on their laptop must return their laptop to Neumont University within (3) days of withdrawal or remaining funds are charged to the student’s account.

SGD Software License Fee $50 per quarter
Beginning quarter 5

BSWD Software License Fee $50 per quarter
Beginning quarter 5

BSIS Certification Fee $207 per quarter
Beginning quarter 3

GRADUATE

Application Fee (non-refundable) $35 ($125 Int’l)
Required of all applicants

Registration Fee $100
Required of all first-time students, not refundable

Tuition (assessed on a per credit hour basis) $550/QCH
Per quarter credit hour (QCH) assessed quarterly

Activity, Facility, and Technology Fee $150 per quarter

ALL PROGRAMS

Late Registration Fee $50
Per Sprint, assessed to students who register for a course after the online registration deadline.

Late Dropped Course Fee $50
Per Sprint, assessed to students who drop a course after the online registration deadline.

Transcript Fee $5
Official transcripts are $5.00 each, plus a National Student Clearinghouse processing fee. They can be ordered through the Neumont website.

Audit Fee $100
Charge to audit a course

Graduation Fee $100
Charged in last quarter of enrollment
PART TIME STUDENTS
The minimum full-time course load for undergraduate students is 12 credits per quarter and eight credits per quarter for graduate students. If a student falls below a full-time load, a per unit charge is 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 online 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 begun courses 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 must 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 a student at the University.

PAYMENT POLICY
The University requires that arrangements for payment of tuition and fees or all courses in an academic year 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 Office of Financial Aid 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 Office of Financial Aid.

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
Neumont University offers student aid for those who qualify. 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. Student 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 the Office of Financial Aid to discuss the specific assistance available.

The primary responsibility for meeting the cost of education rests with the student and his or her family. Student aid is awarded on the basis of need regardless of age, sex, race, color, religion, national or ethnic origin, 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.


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

NEED AND COST OF ATTENDANCE
Once the application for student aid is completed, the information is 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 financial aid package may not exceed the student’s calculated need.
Tuition, fees, books, personal expenses (room and board, and transportation), and other education expenses are considered in determining the student’s cost of attendance. Information on how those costs are derived may be obtained from the Office of Financial Aid.

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:

- Fill amount of the loan,
- Interest rate,
- Commencement of loan repayment,
- Effect borrowing will have on the student’s eligibility for other types of financial aid,
- Complete list of any charges the student must pay (loan fees) and information on how those charges are collected,
- Yearly and total amounts the student can borrow,
- Maximum repayment periods and the minimum repayment amount,
- Explanation of default and its consequences,
- Explanation of available options for consolidating or refinancing the student loans, and
- Statement that the student can prepay the loan without penalty.

The borrower has the right to receive the following information before leaving school:

- Amount of the student’s total debt (principal and estimated interest), what the student’s interest rate is, and the total interest charges on the loan(s);
- Loan repayment schedule with first payment due, the number and frequency of payments, and the amount of each payment;
- FFELP loans, the name of lender or agency that holds the student’s FFELP loan(s), where to send the student’s payments, and where to write or call if the student has questions;
- Any fees expected during the repayment period
- Explanation of available options for consolidating or refinancing the student’s loans, and
- Statement that the student can repay loan without penalty.

The borrower has a responsibility to:

- Understand that by signing promissory notes, the student is agreeing to repay the loan according to the terms of the note;
- Make payments on the 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 loans 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
- Complete exit counseling before leaving school.

TITLE IV CODE OF CONDUCT REQUIREMENTS

1. A ban on revenue-sharing arrangements with any lender. This is defined as any arrangement between a school and a lender that results in the lender paying a fee or other benefits, including a share of the profits, to the school, its officer, employees or agents, as a result of the school recommending the lender to its students or families of those students.

2. A ban on employees of the Office of Financial Aid from receiving gifts from any lender, guaranty agency, or loan servicer. This is not limited just to those providers of the Title IV loans. The statutory language refers to lenders of “educational loans” thus private education loans offered to students at your institution are covered in this provision as well. The law does provide for some exceptions related to specific types of activities or literature. This includes:

- Brochures or training material related to default aversion or financial literacy;
- Food, training, or informational materials as part of training as long as that training contributes to the professional development of those individuals attending the training;
- Favorable terms and benefits to students employed by the institution unless those same terms are provided to all students at the University;
- Entrance and exit counseling as long as University staff are in control and do not promote the services of a specific lender;
- Philanthropic contributions from a lender, Graduate Agency or servicer unrelated to education loans;
- State education, grants, scholarships, or financial aid funds administered by or on behalf of the State;

3. A ban on contracting arrangements whereby any employee of the school’s financial aid office accepts any fee, payment or financial benefit as compensation for any type of consulting arrangement or contract to provide services to or on behalf of a lender relating to education loans.
4. A prohibition against steering borrowers to particular lenders, or delaying loan certifications. This includes assigning any first-time borrower’s loan to a particular lender as part of their award packaging or other methods.

5. A prohibition on offers of funds for private loans. Schools may not request or accept such offers. This includes any offer of funds for loans to students at the University, including funds for an opportunity pool loan, in exchange for providing concessions or promises to the lender for a specific number of loans, or inclusion on a preferred lender list.

6. A ban on staffing assistance from a lender. Schools may not request or accept any assistance with call center staffing or Office of Financial Aid. However, the law does not prohibit schools from requesting or accepting assistance from a lender related to:
   • Professional development training for financial aid administrators.
   • Providing educational counseling materials, financial literacy materials, or debt management materials to borrowers, provided that such materials do not disclose to borrowers the identification of any lender that assisted in preparing or providing such materials.
   • Staffing services on a short-term, nonrecurring basis to assist the school with financial aid-related functions during emergencies, including State-declared or federally declared natural disasters, and other localized disasters and emergencies.

7. A ban on advisory board compensation. Employees of the University may not receive anything of value from a lender, guarantor, or group in exchange for serving in this capacity. They may, however, accept reimbursement for reasonable expenses incurred while serving in this capacity.

POLICIES AND PROCEDURES FOR VERIFICATION OF APPLICANT INFORMATION

Some students are 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 FAFSA.

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 are 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 are informed of their responsibilities regarding the verification of application information, including the institution’s deadline for completion of any actions required;
   • Students are 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 is 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 are notified if the results of verification change the student’s scheduled award;
   • Any suspected case of fraud are 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 are reported on an annual basis to the Inspector General;
   • No interim disbursements of Title IV aid are made prior to the completion of verification.

ENTRANCE AND EXIT INTERVIEW/LOAN COUNSELING

The U.S. Department of Education requires that any student receiving a federal educational loan must be notified concerning his or her 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 Office of Financial Aid 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 questionnaire is mailed.

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 is made within 30 days of receipt of such notice. First time students who withdraw within three calendar days after courses 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 withdraw, a student must notify the Office of the Registrar.

 Whenever possible, the withdrawal is conducted personally with the Registrar. To make an appointment for withdrawal, please contact the Neumont University Registrar.

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 completes appropriate withdrawal forms with 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 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 is the date that most accurately reflects when the student ceased academic attendance due to the circumstances beyond the student’s control.

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.

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 he or she 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 both the return of federal funds to the appropriate programs and the return of 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. Office of Financial Aid 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 STUDENT FINANCIAL AID (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 are made in the following order:

1. Unsubsidized Federal Direct Loan Program;
2. Subsidized Direct 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.

REFUNDS UNDER EXCEPTIONAL CIRCUMSTANCES
Tuition and fees for the current term are 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 ENROLLMENT STATUS
University awards credit in the form of quarter credit hours. 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.

ACADEMIC EVENT POLICY
The purpose of the Academic Event 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 class sessions. A student may be assigned zero credit for any assignment missed because of absences. Students are also expected to be in class on time and remain for the entire session. Classroom participation is particularly important at Neumont since many of the courses require collaborative learning activities. Grades may be lowered due to violations of these policies.

Students who violate the Academic Event Policy may be subject to removal from a class and/or advising. Neumont reserves the right to dismiss a student based upon poor attendance.

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

Refer to the Student Handbook for the specific details regarding the Neumont University Academic Event Policy.
GRADING SYSTEM AND PROGRESS REPORTS
Grades earned in each course are recorded on the student’s permanent record. Evaluation of student achievement is 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 2.00 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:

<table>
<thead>
<tr>
<th>GRADE</th>
<th>GRADE POINT</th>
<th>INCLUDED IN PACE</th>
<th>INCLUDED IN CGPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.00</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>A -</td>
<td>3.70</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>B+</td>
<td>3.30</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>B-</td>
<td>2.70</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>C+</td>
<td>2.30</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>C-</td>
<td>1.70</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>D+</td>
<td>1.30</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>D-</td>
<td>0.70</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>F (Fail)</td>
<td>0.00</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>P (Pass)</td>
<td>N/A</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>R (Research)</td>
<td>N/A</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>AUD (Audit)</td>
<td>N/A</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>TR (Transfer)</td>
<td>N/A</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>TO (Test out)</td>
<td>N/A</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>IW (Involuntary Withdrawal)</td>
<td>N/A</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>XF (Academic Misconduct)</td>
<td>0.00</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>W (Withdrawal)</td>
<td>N/A</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>WU (Withdrawal Unsatisfactory)</td>
<td>0.00</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>WS (Withdrawal Satisfactory)</td>
<td>N/A</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>INC (Incomplete)</td>
<td>N/A</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

GPA AND CGPA CALCULATIONS
The grade point average (GPA) for each quarter and cumulative grade point average (cGPA) are calculated on courses taken in residence at the University. The GPA for each quarter 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.
RESEARCH (R)
An ‘R’ grade is given when a student is making satisfactory progress in a research or capstone course that extends beyond the end of the term (sprint or quarter) or in a project extending over more than one term (sprint or quarter). Students receiving an ‘R’ grade must complete the course within one quarter of the posting of the ‘R’ grade; if not an ‘F’ grade is assigned as the final course grade.

Instructors may not change ‘R’ grades without the permission of the Chief Academic Officer. In the event that the original instructor is no longer available to grade the work, the Chief Academic Officer will assign a faculty member who will resolve the ‘R’ grade.

In the undergraduate programs, only the capstone courses will qualify for ‘R’ grade assignment.

ACADEMIC MISCONDUCT GRADE (XF)
As academic misconduct devalues both the student and the institution, a grade of ‘XF’ is given to any student who is:
- found guilty of academic misconduct in a course, and
- the student is assigned a failing course grade as a result of the judicial process.

In cases of multiple academic misconduct violations and/or those that result in academic suspension or dismissal, a student may be assigned a failing course grade in one or all courses. The ‘XF’ designation is a permanent record of a failing grade that is assigned as a judicial sanction.

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 8 class days of the sprint are given a ‘W’ (withdraw) grade for that course. Between class day 9 and class day 12 of the course, students will earn a ‘WS’ (withdraw satisfactory) or ‘WU’ (withdraw unsatisfactory), depending on the status of course work accomplished as of the withdrawal date. Students who are enrolled in the University are not allowed to withdraw from a class after class day 12 of the sprint. Quarter-length courses are subject to the Sprint 1 withdrawal calendar.

A grade of ‘WU’ is given to a student for violation of Neumont’s Academic Policy. Refer to the Student Handbook for the specific details regarding the Neumont University Academic Event.

An official course withdrawal is initiated with the Office of the Registrar. 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 pace.

Final grades are reported at the completion of each sprint and are available for each student.

INCOMPLETE (INC)
An Incomplete ‘INC’ is a temporary designation given at the instructor and Chief Academic Officer’s discretion to a student whose course work has been of acceptable quality but who, 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. 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’ is calculated as credits attempted in the calculation of successful course completion percentage, but it will not impact the student’s GPA or cGPA. If the student receives a grade of ‘INC’ in a prerequisite course in Sprint 1 of a quarter, they will not be able to take the associated course during Sprint 2, as they will not have received credit for the prerequisite course.

ADD/DROP PERIOD
The Add/Drop Period is defined as the first three class days of the first sprint of the quarter. Students may add or drop courses for either sprint during the Add/Drop Period. Late fees may apply (see Financial Information section for details). Students who do not have an academic event during the Add/Drop Period may be removed from the course or courses in question. Students who have no recorded academic events during the Add/Drop Period may be dismissed from the university.

COURSE ADJUSTMENT PERIOD
The Course Adjustment Period is the first three school days of the second sprint of the quarter. Students may add or drop courses for the second sprint during the Course Adjustment Period; the Course Adjustment Period does not apply to quarter-length courses. Late fees may apply (see Financial Information section for details).

Students who do not have a course that begins in Sprint 2 must have an academic event during the Course Adjustment Period, or they may be removed from the course or courses in question.
COMMENCEMENT
Commencement exercises are held at least once per 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.

COURSE AUDITING
Audited courses do not impact a student’s Pace or Grade Point Average. They are an opportunity for students to sit in a class but not participate in any assignments, assessments, or group work.

Students may audit Neumont courses under the following conditions:
1) have a cumulative Grade Point Average (cGPA) of 3.50 or higher,
2) have previously passed the course, or the course is not required for graduation. Authorization to audit shall require the permission from the Vice President of Academics and daily permission from the instructor. The audit option is dependent on that course’s maximum allowable enrollment. Students taking the course for credit have priority over audit students for instructor time and response to individualized questions.
Permission to audit a course is requested through the StudentAdvisement Coordinator, prior to the end of the Add-Drop (Sprint 1) or Course Adjustment (Sprint 2) periods. There is a $100 per course per quarter audit fee.

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: 3.5–3.75, 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 are 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 is sought.

ACADEMIC LOAD
A student taking twelve (12) or more quarter hours toward the Bachelor’s degree is classified as a full-time student for that term. A student taking eight (8) or more quarter hours toward the Master degree are classified as a full-time student for that term. Students may register for no more than 23 credits per quarter. Students who meet specific academic criteria may apply for an exemption to the credit limit. See the Student Handbook for details.

REPEATING COURSES
A student may repeat a course taken at the University in order to improve their 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 (cGPA) is recomputed to count only the most recent attempt. All repeats are charged at the current tuition rate. The availability of Title IV federal funding may be affected by multiple retakes of the same course.

Credits may only be earned once per course. If a student retakes a course 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 pace as credits attempted. Repeating a course may impact Title IV funding.

ACADEMIC DEFICIENCIES
Following the conclusion of each grading period, the academic records of each student is audited by the Registrar. As a result of this audit, it may be necessary to reschedule the student or to place the student on a status of financial aid warning, financial aid probation, academic dismissal or extended enrollment.

SATISFACTORY ACADEMIC PROGRESS
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 and to remain eligible for Title IV/HEA funding. (Title IV/HEA is federal student financial aid, such as Pell Grants and federal direct loans.)

The University enforces SAP requirements in compliance with the U.S. Department of Education requirements, but also to serve as a guide in determining whether or not Neumont is the right educational program for a student at the time.
All students, whether or not they receive Title IV/HEA funding, are subject to the SAP standards outlined in this catalog. SAP is measured for all students at the end of each academic quarter. Satisfactory Academic Progress is determined by measuring the student’s cumulative grade point average (cGPA) and the student’s pace toward completion of their academic program.

If a student fails to meet the required standards of SAP, which are outlined in the SAP tables included in this section, he or she is placed on Financial Aid Warning ("Warning") or Financial Aid Probation ("Probation"). Students enrolled in all education levels (undergraduate and graduate) are subject to SAP standards as outlined in the SAP tables.

The elements of Satisfactory Academic Progress are as follows:

- Cumulative grade point average
- Pace (rate of progress), including maximum time frame

Neumont University uses progressive cGPA and pace standards. Undergraduate and graduate students enrolled in their first three quarters have lower cGPA and Pace requirements than students in their fourth quarter or later. This system gives students time to adjust to the rigors of college or a graduate program.

For information on how a student’s cGPA and pace of completion are affected by course incompletes, withdrawals, retakes/repetitions, or transfers of credit from other institutions, see the GRADING SYSTEM AND PROGRESS REPORTS unit in the ACADEMIC INFORMATION section of the Course Catalog.

In some cases, the number of credits a student must take to meet SAP in a Warning or Probation quarter is so large that the course load may be unmanageable. In these cases, it may not be in the best interest of the student to register for a course load they are unlikely to successfully manage. These students may be encouraged to register for a credit load that is below what is necessary to meet SAP, and pursue a two-quarter path to meeting SAP standards; a notation is then made in the student’s academic plan.

If the student earns a Warning/Probation term GPA of 2.67 or better and passes 80% of the credits they attempt they are eligible for a quarter of Probation (to follow a Warning or Probation quarter).

**CUMULATIVE GRADE POINT AVERAGE**

To meet SAP requirements, students must meet specific cumulative grade point average (cGPA) requirements during their enrollment. For information on cGPA requirements for each program.

Refer to the SAP tables included in this section. cGPA is measured at the end of each quarter. An academic year is defined as three quarters. Students with a cGPA of 1.99 or lower at the end of the 2nd, 3rd, 4th, etc., academic years will be dismissed. Note that students in this situation are not eligible for Warning status. However, in the case of a successful mitigating circumstances appeal, these students may be eligible for Probation or they may apply for Extended Enrollment status. For more information, see the APPEAL and EXTENDED ENROLLMENT sections of the Course Catalog.

**PACE**

The university specifies the pace at which a student must progress through his or her educational program to ensure that all students will complete the program within the maximum time frame. Neumont calculates the pace at which the student is progressing by dividing the cumulative number of credit hours the student has successfully completed by the cumulative number of credit hours the student has attempted. A student must complete all of the requirements for graduation without exceeding 150% of the required quarter credit hours for the program in which they are enrolled; this limitation is known as maximum time frame.

Undergraduate students may attempt a maximum of 270 credits (150% of 180 credits). Graduate students may attempt a maximum of 81 credits (150% of 54 credits). (For illustrative purposes: If a student had attempted 84 credits and earned 76 credits, their pace would equal 90.4%.) Thus, in addition to the cGPA requirements, a student must successfully complete a certain percentage of the credits attempted. The pace (or rate of progress) requirements per quarter are noted in the undergraduate and graduate SAP tables.

**ELEMENTS OF SAP - TABLES**

<table>
<thead>
<tr>
<th>EVALUATION</th>
<th>CUMULATIVE GRADE POINT AVERAGE (cGPA)</th>
<th>PACE (RATE OF PROGRESS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Quarter</td>
<td>1.50</td>
<td>40.00%</td>
</tr>
<tr>
<td>2nd Quarter</td>
<td>1.75</td>
<td>45.00%</td>
</tr>
<tr>
<td>3rd Quarter</td>
<td>1.85</td>
<td>50.00%</td>
</tr>
<tr>
<td>4th Quarter</td>
<td>2.0</td>
<td>55.00%</td>
</tr>
<tr>
<td>5th Quarter</td>
<td>2.0</td>
<td>60.00%</td>
</tr>
<tr>
<td>6th Quarter and thereafter</td>
<td>2.0</td>
<td>66.67%</td>
</tr>
</tbody>
</table>
PACE REQUIREMENTS REVIEW
Pace is reviewed at the end of each quarter, once grades have been posted, to determine if the student is progressing satisfactorily toward graduation. If it becomes mathematically impossible to complete the program within the maximum time frame, a student may be immediately dismissed.

The student may appeal or continue as a Non-Degree Seeking student at the regular tuition rate until they have completed the maximum allowable credits.

WARNING
The University evaluates SAP at the end of every quarter. If a student does not meet SAP requirements he or she is notified by the Office of the Registrar using his or her official Neumont student e-mail account.

For a student who did not meet the cGPA and/or pace requirements at the end of a quarter, the university will, for the following quarter, place the student on Warning status. To meet SAP standards and return to good standing, the student must—at the end of their Warning quarter—meet the cGPA and pace requirements outlined in the SAP table. (“Good standing” is defined as meeting or exceeding all SAP criteria for that evaluation point. See the SAP table.) The University will disburse Title IV/HEA program funds to the student while on Warning status.

Students who, at the end of a quarter in which they are on Warning status, do not meet SAP but who meet the following criteria will be eligible for Probation and Title IV/HEA funds in the subsequent quarter:

- The student’s Warning quarter grade point average is 2.67 or higher; and,
- The student’s Warning quarter pace (credits earned and attempted in that quarter alone) is 80% or higher.

The University evaluates the record of every Warning student who does not meet SAP to determine whether or not they meet these quarter criteria.

In essence, this is a mitigating circumstances appeal that is filed by the University on behalf of qualifying students; the student does not need to complete appeal paperwork or provide documentation. (See the APPEAL section of the Course Catalog.)

PROBATION
For a student who did not meet the SAP requirements at the end of their Warning quarter, or who did not have a cGPA of 2.0 or higher at the end of their second or subsequent academic year, the university may place them on Probation for the subsequent quarter and disburse Title IV/HEA program funds. To be eligible, the student must appeal (in writing) the determination based on mitigating circumstances (see DISMISSAL APPEAL section of the Course Catalog), and:

- The university determines that the student should be able to meet SAP standards by the end of the subsequent quarter; or,
- The student agrees to a university- and student-sanctioned academic plan—which may include requirements such as taking a reduced course load, enrolling in specific courses, or other requirements—that, if followed, will ensure that student is able to meet the university’s SAP standards by a specific point in time.

To meet SAP standards and return to good standing, the student must—at the end of their Probation quarter—meet the cGPA and pace requirements outlined in the SAP table. (“Good standing” is defined as meeting or exceeding all SAP criteria for that evaluation point. See the SAP table.) The University will disburse Title IV/HEA program funds to the student while on Probation status.

However, students who, at the end of a quarter in which they are on Warning status, do not meet SAP but who meet the following criteria are eligible for another quarter of Probation and Title IV/HEA funds in the subsequent quarter:

- The student’s Probation quarter grade point average is 2.67 or higher; and,
- The student’s Probation quarter pace (credits earned and attempted in that quarter alone) is 80% or higher.
The University evaluates the record of every Probation student who does not meet SAP to determine whether or not they meet these quarter criteria.

In essence, this is a mitigating circumstances appeal that is filed by the university on behalf of qualifying students; the student does not need to complete appeal paperwork or provide documentation. (See the APPEAL section of the Course Catalog.)

**DISMISSAL**

A student who does not meet SAP at the end of their Warning or Probation quarter may be dismissed from the university. Dismissal will occur unless the student has a successful mitigating circumstances appeal and is then granted a quarter of Probation (and, hence, the ability to continue their enrollment). A dismissed student is not eligible for Title IV/HEA funds.

**APPEALING A DISMISSAL**

An appeal is a process by which a student who has not met the university’s SAP standards petitions the institution for reconsideration of their eligibility for Title IV/HEA program assistance and for continued school enrollment. Students that have been notified that they did not meet SAP standards at the end of a Warning or Probation quarter and will therefore be dismissed from the university, or who did not have a CGPA of 2.0 or higher at the end of their second or subsequent academic year, will have the opportunity to appeal the determination for mitigating circumstances.

Grounds for a mitigating circumstances appeal are:

- Death or serious illness of a family member
- The student missed a substantial amount of class due to an illness or injury
- The student met the requirements specified by the institution in the student’s academic plan
- Quarter grade point average and pace requirements as outlined in the WARNING and PROBATION sections
- The student has demonstrated the ability to succeed going forward, despite not meeting SAP requirements.
- Other special circumstances

Additional appeal requirements:

- In the appeal, the student must submit information regarding why they failed to make SAP and what has changed in their situation that will allow them to meet SAP standards at their next evaluation point.
- The student must submit the appeal and all required information to the Registrar no later than the last Friday before the start of the subsequent quarter.

The appeal committee may consider an appealing student’s academic record and other indicators of success and deny an appeal, even when the student has demonstrated a qualifying mitigating circumstance, solely on the basis of a determination that a student is unlikely to succeed in future quarters at Neumont.

Students should use the SAP Dismissal Appeal form, which can be obtained from the Registrar’s Office. The completed SAP Dismissal Appeal form must be turned in to the Registrar’s Office no later than 4:00 p.m. on the Friday prior to the start of the next quarter.

If the appeal is accepted, the student is allowed an additional quarter of Probation, during which they are eligible for Title IV/HEA funding. The outcome of the appeal and conditions for reinstatement are recorded by the Appeal Committee and are communicated to the student. If a student does not appeal or the appeal is denied, and the student declines or is not eligible for Extended Enrollment, the student is dismissed from the university. Dismissed students will lose their eligibility for Title IV/HEA funding. The lender is notified of the student status change within 30 days from the last date of attendance.

**EXTENDED ENROLLMENT STATUS**

A student who does not meet SAP and who has been notified that they are dismissed from the university may be eligible to continue in an extended enrollment status, but are subject to the following limitations:

- The student may be in extended enrollment status for one quarter following a Warning or Probation quarter.
- The student will not be eligible for federal financial aid of any kind (Title IV/HEA) and are charged for courses at the current tuition rate.
- Credits attempted during the extended enrollment quarter will be counted toward CGPA and pace/maximum time frame.
- At the end of an extended enrollment quarter, students must meet SAP standards or they will be dismissed from the university; these students may not appeal their dismissal.
- Students 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. (See the PACE section.)
- The student must petition the Office of Student Affairs in writing for approval of extended enrollment status. If extended enrollment status is granted, the student must meet with a member of the Office of Student Affairs and agree to a written corrective action plan.
A request for extended enrollment status will only be granted if the student can mathematically meet SAP at the end of the extended enrollment quarter.

- At the end of the extended enrollment status period, if the student has met SAP requirements, he or she will—for the subsequent quarter—resume eligibility for federal financial aid and return to good academic standing with the university. If Satisfactory Academic Progress is still not met, he or she will be dismissed from the university with no immediate appeal option. (For more information, see RE-ESTABLISHING ELIGIBILITY re-admission requirements in the Course Catalog.)

RE-ESTABLISHING ELIGIBILITY

- A student is removed from Warning, Probation, or Extended Enrollment status — and 1. re-establish eligibility for Title IV/HEA funds and 2. return to good academic standing — only when he or she fully meets the standards of SAP for their evaluation point (see SAP table).
- (For illustrative purposes: a student who is on Warning status in their third quarter, due to having a cGPA that is below the 1.75 requirement for their second quarter, must have a cGPA of 1.85 at the end of their Warning/third quarter; this is because the student must meet SAP requirements for the end of the Warning/third quarter, and in this case that requirement is higher than the requirement in place at the previous evaluation point/second quarter.
- A student who has completed a Warning quarter and meets SAP will resume eligibility for Title IV/HEA funds and return to good academic standing. A student who does not meet SAP must appeal and have that appeal granted (placed on Probation for the subsequent quarter), be approved for Extended Enrollment, or be dismissed from the university.
- A student who has completed a Probation quarter and who meets SAP will resume eligibility for Title IV/HEA funds and return to good academic standing.
- A student on Probation who does not meet SAP may only receive an additional quarter of probation if the university determines that they have fully met the requirements specified in the student's academic plan; otherwise, the student must be approved for Extended Enrollment or be dismissed from the university.
- The University will notify a student who is on Warning, Probation, or Extended Enrollment status regarding whether or not they have met the standards of SAP and of their status for the following quarter.

Students dismissed from the university may apply for re-admission to the with a return date of no sooner than one year after their dismissal. The student must show evidence that the issues causing the academic deficiency and dismissal have been addressed and corrected. Evidence might include community service completed, a successful record of employment, or academic accomplishment at another college or university, and other personal development activities. If reaccepted to the university, the student would be placed on Warning status for their first post-reenrollment quarter and be eligible for Title IV/HEA funding. The student's application is reviewed by the Acceptance Committee, whereupon the application is either approved or denied. Students who are interested in applying for re-admission to the university should contact the Office of the Registrar.

TRANSFER CREDIT - APPLICATION OF GRADES AND CREDITS

Transfer credits are not included in the calculation of cGPA but are included in the calculation for pace: total number of credits attempted and earned.

TRANSFERRING TO ANOTHER NEUMONT PROGRAM

For a student who transfers to a different degree program, the university will recalculate SAP based on the credits attempted and grades earned that count toward the student’s new program of study. A student who would have been out-of-compliance with SAP in their original degree program may be in-compliance in their new program of study.

APPLICATION OF SAP POLICY

For required courses, a passing grade is a ‘C’ or better. For elective courses, and for courses selected from a “choose one/two from the following” category, a passing grade is a ‘D-’ or better. Credits attempted are defined as those credits for which students are enrolled at the end of the add/drop or course adjustment period.

If there is grade change (including resolution of an incomplete), SAP is calculated after the change to determine whether the student is in good standing with the university. Students enrolled in all educational levels at Neumont are subject to all elements of SAP standards. No student on Warning or Probation status is allowed to graduate. Thus, every Neumont graduate must have a cGPA of 2.0 or higher.
APPLICATION OF GRADES AND CREDITS
Transfer credits are not included in the calculation of cGPA but are included in the “Total Number of Credits Earned.” 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 include grades, prior education and training, and awards received.

Student academic transcripts, which include grades, are available through the Office of the Registrar. 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. 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).