

Dear Student:

Welcome to Trine University. You will find that Trine University is an exciting place, where young men, women, and working adults acquire the knowledge and skills that transform their lives and prepare them for challenging, rewarding careers.

Since 1884, Trine University has offered affordable, career-oriented, comprehensive educational opportunities to deserving students who are determined to make a difference. The placement rate for students in work related to their majors within six months of graduation is among the highest in the country, and the starting salaries for our graduates exceed the national average in every category.

The placement rates and starting salaries of our graduates are a testament to the kind of education that is available at Trine University—one that is practical and grounded in fundamentals. It is the kind of education that can only be gained through interaction and collaboration between committed professors and motivated students, through the sharing of diverse viewpoints and common respect.

It's the kind of education you will get whether you are enrolled in the University's Allen School of Engineering & Technology, Franks School of Education, Jannen School of Arts & Sciences, Ketner School of Business, our two master's degree programs, or in the School of Professional Studies.

Again, welcome to the Trine University community. I hope you will feel free to stop by my office at any time to seek assistance or guidance, or just to visit. My door is always open, and you are always welcome.

Sincerely,



Earl D. Brooks II, Ph.D., President

TABLE OF CONTENTS

Description.....	2
Mission Statement.....	2
Accreditation.....	3
History	3
School of Professional Studies	5
Locations.....	6
School of Professional Studies Degree Programs	6
Board of Trustees	9
Administration & Staff.....	12
SPS/TVC Academic Calendar	14
Undergraduate Admission.....	See Undergraduate Admission Information Section 15
Undergraduate Course Descriptions.....	See Undergraduate Course Descriptions Information Section
Graduate Admission.....	See Graduate Admission Information Section
Graduate Course Descriptions.....	See Graduate Admission Information Section

TRINE UNIVERSITY IN PROFILE

DESCRIPTION

Trine University is a private, comprehensive, career-oriented, degree-granting institution. It offers degrees in over 40 academic programs through five schools—Allen School of Engineering & Technology, Franks School of Education, Jannen School of Arts & Sciences, Ketner School of Business, and the School of Professional Studies. The University is governed by a self-perpetuating Board of Trustees.

MISSION STATEMENT

Trine University promotes intellectual and personal development through professionally-focused learning opportunities, preparing graduates to succeed, lead, and serve.

To achieve this mission, Trine University undergraduate and graduate students receive personal attention through small classes and excellent teaching. We focus on your future by providing career-oriented higher education that emphasizes:

1. active participation in classes, with a focus on teaming and collaboration
2. the useful and practical, to complement rigorous theoretical study
3. intentional co-curricular experiences to cultivate holistic student development
4. learning how to do, while learning what to do

VISION

Trine University will be the very best mid-sized private university, contributing to local and regional economic and cultural development. We will be characterized as engaged, dynamic, growing, and adding value.

VALUES

Trine University's mission and vision for the future rest on five core values that define our foundational beliefs and guide all that we aspire to accomplish.

1. Personal and professional growth with a focus on creative endeavors and lifelong learning
2. Quality teaching, learning, and scholarship
3. A highly responsive, dynamic environment
4. A trustworthy, secure, and caring community that embraces diversity
5. The highest ethical standards in all activities

GOALS (specific, measurable, attainable, realistic, and timely=SMART)

To realize our mission and achieve our vision, the following operational goals have been established to guide our day-to-day activities:

- Provide a responsive and effective environment for student learning, living, and personal achievement through exceptional programs and services.
- Continue to enhance its processes, tools, and to complement the quality of academic programs; optimally utilizing information, technology, or both
- Build a community which exemplifies and celebrates diversity
- Develop and strengthen corporate and community partnerships
- Consistently and passionately engage all stakeholders in the mission and life of the University
- Support systematic planning, developmental, and assessment processes to assure ongoing improvement of the University and its programs

Adopted on May 7, 1999 and revised April 30, 2004, and September 2006, and October 2010 by the Board of Trustees

ACCREDITATION

Trine University is accredited by the Higher Learning Commission and a member of the North Central Association, ncahigherlearningcommission.org. Telephone 312.263.0456.

DISCLAIMER

The information contained in this catalog is subject to change. It is the responsibility of the student to ensure that information, particularly in regard to fees, is current. Up-to-date information is available through regional education center directors or on the Trine University Web site at trine.edu.

HISTORY

The University was founded in 1884 by 12 private citizens. It was and is a product of the normal school movement of that time, a fact that was reflected in its original name, Tri-State Normal College.

As a result, the mission and focus differed radically from the prevailing concepts of higher education in that day. The first schools of higher education in this country were essentially in the British mold, with emphasis on the liberal arts and training for the learned professions, particularly the clergy. By contrast, normal schools provided higher education for students in the “normal occupations” of life, such as teaching, engineering, telegraphy, domestic science, and other practical arts.

Although they provided an unpretentious type of education, normal schools were generally bold and innovative. They simply took students in and encouraged them to do as much as they could through self-development. They also encouraged active student participation in classes, as opposed to the prevailing lecture format. For the convenience of their students, the schools operated on a year-round basis. Coeducation was another striking feature of the normal school movement.

But it was the emphasis on the useful and practical, rather than the traditional, that enabled normal schools to flourish. By 1888, 30 normal schools had been founded in Indiana, including Ball State Teacher’s College, Valparaiso, and, of course, Tri-State Normal College, located on six acres of land in the tiny village of Angola. Within 30 years, however, Tri-State was the only school to survive as an independent; all of the other schools had perished or had become state-or church-sponsored.

One reason that Trine University succeeded while the other schools failed was because of its early leader, Littleton M. Sniff. His fierce sense of independence and total devotion to this school is documented in hundreds of letters he wrote to prospective students, assuring them they could start college regardless of their academic background and that they could earn degrees in the shortest time possible at a cost they could afford. Most of these letters concluded with the simple command and exhortation of “Come.”

Sniff, the institution’s second president, presided over the school’s first commencement ceremonies in 1888. By May 1922, Tri-State College—renamed in 1906—had more than 200 graduates, representing nearly every state in the Union and 30 countries. Sniff died on Sept. 14, 1922, in his 36th year as president, the longest tenure in school history. The strength of his character and the power of his convictions were part of his legacy to Trine University.

The original curricula featured teaching, bookkeeping, science, commercial law, penmanship, and some courses in the classics and music. Under Sniff’s guidance, the institution kept pace with the needs of the new scientific era by adding or dropping courses of study according to demand, financial feasibility, and the needs of the marketplace. In 1927, the University reorganized to focus solely on its strengths in engineering and business; all other programs were discontinued, including teacher preparation, fine arts, music, and the School of Law. The School of Pharmacy opened in 1902 and closed in 1922.

The School of Engineering, which was established in 1902 by George Neihous (who had come to the College at the request of President Sniff), offered accelerated bachelor of science degree programs in civil, mechanical, electrical, and chemical engineering. There was also a new engineering need to be met in the expanding world of transportation: aviation. Ever flexible and alert, Tri-State College listed aeronautical engineering as a degree program in 1929, two years after Charles Lindbergh crossed the Atlantic. During this time, the school’s flying clubs—the Stick and Wing Club and the Glider Club (later renamed the Thunderbirds)—were

formed. In 1934, the University celebrated its 50th anniversary at the 1934 World's Fair in Chicago, with daily demonstrations of its miniature wind tunnel.

The School of Commerce, built around the objectives of the American private enterprise system, offered accelerated Bachelor of Science degree programs in business administration and accounting.

World War II could not have ended too soon for Tri-State College. By 1945 its enrollment sank to 170, putting its future in jeopardy. Several administrators had gone two years without pay. But the war ended, and more than 1,300 students—mostly GIs—swelled the campus in the fall of 1946. War surplus buildings were secured from the Federal Public Housing Agency to provide additional classroom buildings and student housing for an over-crowded campus. In 1947, due to the volume of students completing their coursework early, a Mid-Year Commencement was instituted. With its future secure, the stockholders agreed to reorganize the 60-year-old school into a nonprofit educational corporation, marking the first time the College was granted exemption from federal tax.

Dr. Richard M. Bateman began his 15-year tenure on campus in 1960. His era would prove to be of great significance. The campus underwent one of its largest expansions in history, adding Ford Library (1962), Stewart Hall (1965), Best Hall of Sciences (1967), Hershey Hall (1970) and Zollner Golf Course (1971). Five new dormitories were constructed in 1968 as student enrollment hit a record: 2,022 students.

In 1964, as a first step in gaining accreditation with the North Central Association of Colleges and Secondary Schools (NCA), the University discontinued its accelerated 27-month programs and began enrolling students in standard 36-month programs. While many had serious misgivings about ending the accelerated programs, most realized the importance of gaining accreditation. NCA accreditation was achieved in 1966.

In 1968, the Division of Arts and Sciences was formed to offer two-year transfer programs to students who planned to earn bachelor of science degrees in the liberal arts at other schools. The new programs proved popular, and, in 1970, the division was upgraded to a school with four-year degree programs. Teacher preparation returned to the curriculum in the 1970s. With three schools—Engineering, Business, Arts and Sciences—the institution had become more than a college. Shortly after Bateman's departure in 1975, Tri-State College was officially renamed Tri-State University.

During the 10 years leading up to its Centennial Celebration in 1984, the University continued to innovate and excel. The first Grand Prix go-kart race was held in 1971. The first International Students Association dinner was served in 1974. The first WEAX (student radio station) broadcast was heard in 1978. A free film series was inaugurated in 1980. The Trojans, known as the Engineers until 1967, had great success in golf, track and field, and particularly basketball, which collected eleven consecutive Mid-Central Conference titles and earned two appearances in the NAIA national tournament.

Tri-State University celebrated its 100th anniversary with the publishing of *From Carriage to Computer: The First 100 Years of Tri-State University*, written by Elizabeth Brown Orlosky.

In the early 1990s, the University received approval from NCA to offer adult degree programs outside of Angola. Between 1994 and 1998, the University opened four locations across northern Indiana—Angola, Fort Wayne, Merrillville, and South Bend. In 2002 the Masters of Science in Engineering Technology was approved as the first of five graduate programs currently offered.

Hershey Hall was the site of the 1996 and 1997 NAIA Division II women's basketball championship. The Tri-State University Thunder advanced to the Elite Eight in 1996. The women's golf team captured the University's first national championship in 1997. The men's volleyball team won the school's second national championship in 1998, the same year Thunder football rolled to an 11-3 record and a semi-final appearance in the national playoffs.

More than 120 years after its founding, TSU, now Trine University continues on a successful path. Since 2001 significant renovation has given the campus new life. The Keith E. Busse Athletic and Recreation Center with 200-meter indoor track and practice areas for tennis, volleyball, baseball and softball opened 'Fall 2009'. In Fall 2010, the new Fred Zollner Athletic Stadium

will serve 5,000 fans of football, lacrosse, soccer and field hockey. The renovated Sniff Building now houses the school's executive offices once again, under the name C.W. Sponsel Administration Center. The school's newest and most modern building opened on Homecoming weekend in October 2007. The University Center and Center for Technology and Online Resources houses the new Library and Information Resources, 320-seat Fabiani Theatre, Trine Bookstore, Student Life and Student Success and Retention offices, a post office, IT help desk and department, Hornbacher Fitness Center, and Hornbacher studios, the new home for WEAX 88.3-FM, Trine University's radio station.

Trine university has completed a \$2 million technology upgrade, creating a campus-wide wireless environment. The Center for Digital Excellence, a technology classroom for group learning, is housed in the new University Center. SMART classrooms, new classrooms equipped with access to modern computers, projector systems, connectivity for laptops, and additional resources for electronic instruction such as DVD players, have been installed on the campus. The University provides more than 200 computers dedicated to student access in labs across campus.

Academics remain strong in all five schools: Allen School of Engineering & Technology, Franks School of Education, Jannen School of Arts & Sciences, Ketner School of Business, and School of Professional Studies. New master's degree programs in criminal justice, leadership and engineering (majors in civil, biomedical, and mechanical) have been added.

CORPORATE STATUS

Trine University is an educational corporation organized and existing under the laws of the state of Indiana. The correct corporate name of the institution is Trine University, Incorporated. The University was founded in 1884 as Tri-State Normal College. The governing body of the University is the Board of Trustees, which has an authorized membership of 30 trustees, each of whom serves without compensation and none of whom may be employed by the University in any administrative or teaching capacity. Two of the trustees are authorized to be elected by the alumni. Consistent with this form of organization and non-profit operation, Trine University has been granted exemption from federal income tax by the Commissioner of Internal Revenue, Treasury Department under Section 501 (c) (3) of the Internal Revenue Code. Contributions to the University are deductible to the extent provided by law; bequests, legacies, devices, or transfers to the University are deductible in arriving at the value of the net estate of a decedent for estate tax purposes in the manner and to the extent provided by law; gifts of property are deductible in computing net gift tax purposes in the manner and to the extent provided by the Internal Revenue Code.

FINANCIAL INFORMATION

Selected financial data are available from the institution's annual report. That report may be obtained from the office of the President or of the Vice President for Finance.

CAMPUS SECURITY

A copy of the annual campus security report is available by September 1st of each year on the Trine University Web site (*trine.edu*). It contains statistics, policies, and a description of programs that promote campus safety as well as drug prevention program information.

SCHOOL OF PROFESSIONAL STUDIES (SPS)

SCHOOL OF PROFESSIONAL STUDIES MISSION STATEMENT

In concert with Trine University, the mission of the School of Professional Studies is to provide quality, continuous higher learning opportunities for adults who want to begin or advance in careers, enhance lifelong learning, and keep pace with the growing complexities of today's world.

DESCRIPTION

The School of Professional Studies is designed to provide quality, continuous higher education learning opportunities for adults who want to advance in their careers and keep pace with the growing complexities of today's career environment. SPS programs are

non-residential, providing services for domestic students. Nearly one-fourth of all students attending Trine University are School of Professional Studies students. The programs are designed primarily for adult returning students.

SCHOOL OF PROFESSIONAL STUDIES EDUCATIONAL CENTER LOCATIONS

Angola Education Center

1 University Avenue.
Angola, Indiana 46703
260.665.4623
E-mail: trinenorth@trine.edu

Columbus Education Center

2222 Poshard Drive
Columbus, Indiana 47203
812.350.6387
E-mail: columbus@trine.edu

Fort Wayne Regional Campus

9910 DuPont Circle Drive East
Fort Wayne, Indiana 46825
260.483.4949
E-mail: trinefw@trine.edu

Sturgis Education Center

107 W. West Street
Sturgis, Michigan 49091
260.350.4834
E-mail: sturgis@trine.edu

Indianapolis Regional Education Center

7508 Beechwood Center Road
Avon, Indiana 46123
317.775.8410
E-mail: trineindy@trine.edu

Logansport Education Center

2815 East Market Street
Logansport, Indiana 46947
574.516.1218
Email: logansport@trine.edu

Schererville Education Center

746 East U.S. Highway 30
Schererville, Indiana 46375
219.440.7180
E-mail: trinem@trine.edu

South Bend Regional Campus

4101 Edison Lakes Parkway Suite 250
Mishawaka, Indiana 46545
574.243.0500
E-mail: trinesb@trine.edu

Trine Virtual Campus

9910 DuPont Circle Drive East
Fort Wayne, Indiana 46825
260.483.4949
E-mail: virtualcampus@trine.edu

Warsaw Education Center

907 Wooster Road
Winona Lake, Indiana 46590
574.377.9278
E-mail: trinew@trine.edu

SCHOOL OF PROFESSIONAL STUDIES ACADEMIC DEGREE PROGRAMS

Academic programs at all School of Professional Studies education centers include:

Undergraduate Degree Programs

- Bachelor of Applied Management
- Bachelor of Arts in General Studies, General Social Studies concentration
- Bachelor of Arts in General Studies, Pre-Legal Studies concentration
- Bachelor of Arts in General Studies, Self-Designed Studies concentration

- Bachelor of Business Administration
 - Majors in:
 - Accounting
 - Entrepreneurship
 - Healthcare Management
 - Hospitality & Tourism Management
 - Human Resource Management
 - Management
- Bachelor of Computer Science
- Bachelor of Engineering
- Bachelor of Science with a major in Communication, Applied Communication Track
- Bachelor of Science with a major in Communication, Corporate and Organizational Communication Track
- Bachelor of Science with a major in Communication, Public Relations and Journalism Track
- Bachelor of Science in Criminal Justice
- Bachelor of Science in Engineering Technology
- Bachelor of Science
 - Majors in:
 - Psychology
 - Emergency Management

The School of Professional Studies offers the following associate degrees:

- Associate in Accounting
- Associate in Business Administration
- Associate of Science in Engineering Technology

GRADUATE PROGRAMS

- Master of Science with a major in Criminal Justice
 - Concentrations in:
 - Public Administration
 - Emergency Management
- Master of Science in Leadership (Pending HLC Approval)
 - Concentrations in:
 - Biomedical Regulatory Affairs
 - Healthcare Systems Studies
 - Instructional Leadership
 - International Studies
 - Non-Profit Organizational Studies
 - Political Leadership & Civic Engagement
 - Strategic Foresight & Entrepreneurship
 - Sustainable Business Administration

CLASS SCHEDULES

Geared to the working adult, most classes convene one night per week during an eight-week session of a 16-week semester. There are three semesters a year, but the eight-week sessions provide for six entry points and increased flexibility for adult students.

ACTIVITIES

SPS students are encouraged to participate in activities at their respective education centers, but may also participate in main campus activities. Students who qualify are eligible for memberships in various scholastic honoraries, such as those in business or criminal justice. Students may use student ID cards to attend main campus events.

LIBRARY

All SPS students have the opportunity to use the main campus Library and Information Services, either in person or on the Web. Multiple resources are available to all students online through the library at *trine.edu/lis*. Students can access the Web-based catalog of the library's collection of books, media (tapes, DVDs, CDs, etc.), periodicals (journals, magazines, newspapers and other resources through magazines, newspapers), and other resources through computer labs on or off campus. Some electronic resources require a log-on for off campus use.

Students may request materials not available in the Trine University collection via the inter-library loan (ILL) service. Trine University library materials and ILL borrowed items and photocopies (periodical articles or book chapters) can be delivered to any education center. Trine University library books circulate for three-week periods and media for one-week periods. The lending library sets the loan periods for ILL borrowed items and these vary by institution. In addition, students can apply for a reciprocal borrowing card to access library collections in Indiana universities statewide. Librarians can provide research assistance and guides for using the library and its resources.

BOARD OF TRUSTEES

Year in parentheses denotes when affiliation with board began.

OFFICERS:

Jerry L. Allen (1995) Chair
Westfield Center, Ohio
B.S.M.E., Hon. D.E. (Tri-State University);
Vice President Product Development TVC Communications,
Inc.,
Wadsworth, Ohio

James P. Fabiani (2001) Vice Chair
McLean, Virginia
B.S. (Harvard); M.Ed. (University of Massachusetts);
Chair and CEO, Fabiani & Company, Washington, DC

Ralph D. Trine (1990) Secretary
Fremont, Indiana
B.S.M.E., Hon. D.E. (Tri-State University);
M.S.M.E., M.B.A. (Michigan State University);
Chair and CEO, Vestil Manufacturing Co.,
Angola, Indiana

MEMBERS:

James D. Bock (2003)
Elkhart, Indiana
B.S.M.E. (Tri-State University);
President/Owner, Bock Engineering Co.,
Elkhart, Indiana

Lynn A. Brooks (2007)
Auburn, Indiana
B.S. (Tri-State University)
President and CEO, Rieke Packaging Systems,
Auburn, Indiana

Tobias Buck (2010)
Pierceton, Indiana
A,A,S,(Red Wing Technical Institute);
B.S. (Purdue University, Fort Wayne);
Chairman, President/CEO and Founder, Paragon Medical, Inc.

Keith E. Busse (2003)
Fort Wayne, Indiana
B.S.B.A. (University of Saint Francis); M.B.A.
(Indiana University/Purdue University–Fort Wayne);

President and CEO, Steel Dynamics, Inc.,
Fort Wayne, Indiana

Suzanne Ehinger (2007)
Roanoke, Indiana
B.S. (Indiana University);
M.B.A. (Saint Francis College);
Ph.D. (Kennedy Western University)
Chief Operating Officer, Parkview Hospital,
Fort Wayne, Indiana

Lawrence A. Franks (1984-2002) (2004) Chair Emeritus
Sturgis, Michigan
B.S.M.E., Hon. D.E. (Tri-State University);
President, Burr Oak Tool and Gauge Company, Inc., Sturgis,
Michigan

Tomas Furth (1997)
New York, New York
B.S.M.E., B.S.Ch.E., Hon. D.E. (Tri-State University);
President, Sudamtex Holding, Caracas, Venezuela

William A. Gettig (1984) Chair Emeritus
Spring Mills, Pennsylvania
B.S.M.E., Hon. D.E. (Tri-State University); Hon. Doctor of
Laws, (Susquehanna University);
President and C.E.O., Gettig Technologies Inc,
Spring Mills, Pennsylvania

John N. Hester (1999)
Orangevale, California
B.S.Ch.E., (Tri-State University); M.S.Ch.E.,
(Michigan State University); Ph.D. (Walden University);
Associate Dean Emeritus, College of Engineering, California
State University, Sacramento, California

Rick L James (2010)
Auburn, Indiana
B.S.B.A. (Tri-State University)
Cairman/CEO, Metal Technologies, Inc.
Auburn, Indiana

Dennis Kruse (2010)
Auburn, Indiana
B.S., GRI and CAI (Indiana University
Indiana State Senator, Indianapolis, Indiana

Phillip H. Mayberry (2010)
Clear Lake, Indiana

B.A. (Indiana University)
President (ret.), Centennial Wireless;
Investor, Congeries LLC

John J. McKetta, Jr. (1957)
Austin, Texas
B.S.Ch.E., Hon. D.E. (Tri-State University); B.S.E., M.S.,
Ph.D. (University of Michigan);
Hon. D.Sc. (University of Toledo);
Hon. D.E. (Drexel University);
Joe C. Walter Chair in Chemical Engineering (Emeritus)
Department of Chemical Engineering,
University of Texas, Austin, Texas;
Registered Professional Engineer

John J. “Mike” McKetta, III (2004)
Austin, Texas
B.A. (Harvard University); J.D. (University of Texas);
President, Graves, Dougherty, Hearon & Moody PC, Austin,
Texas

Richard L. Oeder (1995)
Morrow, Ohio
B.S.C.E. (Tri-State University);
Area Manager (ret.), Columbia Gas of Ohio,
Springfield, Ohio

John A. Pittman (1997) Chair
Austin, Texas
B.S.E.E., Hon. D.E. (Tri-State University);
M.B.A. (Baldwin-Wallace College);
President (ret.), The Fieldbus Foundation, Austin, Texas

J. Winston Porter (2007)
Leesburg, Virginia
B.Ch.E. (University of Texas at Austin);
Ph.D. (University of California at Berkley)
President, Waste Policy Center, Leesburg, Virginia

Larry E Reiners (2009)
Tulsa Oklahoma
B.S.C.E. 1965, Tri-State University
Manager, Makoi Group, LLC

Mitchel E. Rhoads (2006)
Rockport, Texas
B.S.B.A. (Tri-State University);
Chairman, Rhoads Holding Ltd., Littleton, Colorado

Ian M. Rolland (2010)
Fort Wayne, Indiana
B.A. (DePauw University), M.S. (University of Michigan),
Hon. D.E. (Purdue University, University of St. Frances,
DePauw University, Manchester College, Tri-State University,
and Indiana Institute of Technology)
Chairman (ret.), Lincoln National Corp.

Clifford D. Ryan (2009)
Naples, Florida
B.S.B.A. 1966, Tri-State College
Manager, R.&R. Real Estate, Ltd.

Jack Shaw (2010)
Coldwater, Michigan
B.S.E.E. (Purdue University)
President and CEO
Hughes Electronics Corp. (ret.)
Coldwater, Michigan

Wayne M. Shive (2008)
Fort Wayne, Indiana
Hon. D.B.Ad. (Tri-State University)
President, Nu-Tec Coatings, Fort Wayne, Indiana

Sheri Trine (2007)
Fremont, Indiana
Hon. D.H.L. (Tri-State University)
Director of Human Resources and Accounting, Vestil
Manufacturing Co., Angola, Indiana

R. Wyatt Weaver (2005)
Angola, Indiana
B.S. and M.D. (Indiana University);
Family Practice Physician, Angola, Indiana

TRUSTEES EMERITI

(Dates denote years of active service as a trustee.)

Jimmie Caldwell (1976-2009) Chair Emeritus
Indianapolis, Indiana
B.S.C.E., Hon. D.E. (Tri-State University)
Registered Professional Engineer;
President and Chair (ret.), Chair Emeritus, Geiger and Peters,
Inc., Indianapolis, Indiana

Joanne S. Crown (1969-1987)
Wilmette, Illinois
B.S. (Indiana University)

Morgan L. Fitch, Jr. (1968-1977)
Western Springs, Illinois
B.S.Ch.E. (Illinois Institute of Technology); J.D.
(U.S. Navy Law School, University of Michigan);
Senior Partner, Fitch, Even, Tabin, and Flannery, Chicago,
Illinois

Leamen I. Forman (1984-2002)
Appleton, Wisconsin
B.S.B.Ad., Hon. D.B.Ad. (Tri-State University);
President & Chair of the Board (ret.), Bank of Menasha,
Menasha, Wisconsin

William P. Himburg (1975-1985)
Naples, Florida
B.S. (Tri-State University);
Chair of the Board, Indian Trails, Inc.,
Owosso, Michigan

Paul R. Kahlenbeck (1983-1998)
Columbus, Indiana
B.S.M.E., Hon.D. E. (Tri-State University);
Vice President (ret.), Cummins Engine Company, Inc.,
Columbus, Indiana

John W. Kirsch (1965-1975)
Sturgis, Michigan
Ed. (Albion College); M.B.A. (Indiana University);
Chair of the Board (ret.), Kirsch Company,
Sturgis, Michigan

Wayne Larson (1981-1993)
Pasadena, California
B.S.B.Ad. (Tri-State University);
Owner, Wayne H. Larson Insurance Agency,
Pasadena, California

Earl F. McNaughton (1983-2003) Chair Emeritus
Fremont, Indiana
B.S.B.Ad., M.S.B.Ad., (Indiana University);
J.D. (Valparaiso University);
Hon. D.B.Ad. (Tri-State University);
Chair of the Board & President (ret.),
The First National Bank of Fremont,
Fremont, Indiana

Gary L. Ray (1990-2002) Chair Emeritus
Medina, Ohio

B.S.M.E., Hon. D.E. (Tri-State University); M.B.A. (Wharton
Graduate Division, University of Pennsylvania);
President/Owner, Transformer Engineering Corp., Cleveland,
Ohio

Richard A. Rosenthal (1971-1977)
Niles, Michigan
B.S. (University of Notre Dame);
Director of Athletics, University of Notre Dame,
South Bend, Indiana

Clifford W. Sponsel (1978-1999)
Santa Barbara, California
B.S.C.E., Hon. D.E. (Tri-State University);
Investments and Consultant

Norman O. White (1980-1994)
Bloomfield Hills, Michigan
B.S.M.E., Hon. D.E. (Tri-State University);
Chair of the Board, H.M. White Inc., Detroit, Michigan

UNIVERSITY ADMINISTRATION

Dr. Earl D. Brooks II	President
Dareen K. McClelland.....	Assistant to the President
Michael R. Bock	Senior Vice President
Dr. David R. Finley	Vice President for Academic Affairs
Scott J. Goplin	Vice President for Enrollment Management
Jody A. Greer	Vice President for Finance
Kent Stucky	Vice President for Alumni & Development

OFFICE OF ACADEMIC AFFAIRS

Dr. David R. Finley Vice President for
Academic Affairs

Dr. Jean Deller Assistant Vice President for Program
Development & Assessment, Assistant Vice
President for Graduate Studies

Julie Pfafman Administrative Assistant
for Academic Affairs

ACADEMIC DEANS

Scott FergussonKetner School of Business
John Shannon, Ph.D.Jannen School of Arts & Sciences
V.K. Sharma, Ph.D.Allen School of
Engineering & Technology
Suzanne Van Wagner, Ph.D.Franks School of Education
David W. Wood School of Professional Studies

BUSINESS OFFICE

Jody Greer Vice President for Finance
and Controller
Lynda Crawford.....Senior Staff Accountant
Katyann Douglass.....Student Accounts Administrator
Dawn Musson.....Staff Accountant
Karen Norris Accounts Payable Administrator
Loretta Simmons.....Senior Student Accounts Administrator
Andrea Smith Director of Business Services

PEOPLE SERVICES

Catherine Faye Director of People Services
Linda Bateman Director of Career Services
Teresa Johnson Assistant Director of Career Services
Mallory McClelland Administrative Assistant
Paul Viglianti Employee Outreach Coordinator

OFFICE OF FINANCIAL AID

Kimberly Bennett Chief Financial Aid Administrator
Alisa Mills Assistant Director of Financial Aid

INFORMATION TECHNOLOGY

Michelle Dunn Chief Information Officer
Josh Beard Systems Administrator
Codi Buell.....Academic Technologist
Lathangi ChinigepalliApplication/Web Developer
Eric Hauck Web Content Developer
Larry Johnson Help Desk Technician
Angela Kiess..... Director of Technology Support Services
Kurt Thompson.....Academic Technology and Online Learning
Wendy Yagodinski Programmer/Analyst
Renee VanWagner.....Telecommunications/PC Technician

LIBRARY

Kristina Brewer Director
Matt Brockington.....Technical Services
Lauren Magnuson..... Senior Information Services Librarian
Carly StatzInformation Services/Archives
Connie Tharp.....Secretary, Acquisitions

MIDDLE COLLEGE

Kelly Stout..... Director
Nick Pfafman..... Coordinator

REGISTRAR

Debra Helmsing..... Registrar
Karen Reinoehl..... Transfer Coordinator
Lucretia Shank..... Assistant Registrar
Renee Shipe..... Assistant Registrar

WEAX RADIO STATION

Josh Hornbacher Operations Manager

ZOLLNER GOLF COURSE

Jennifer Lymangood Head Golf Professional
Barry Emerick Superintendent, Grounds
Nick Wentworth Assistant Superintendent, Grounds
Dan Zimmerman..... Maintenance

SCHOOL OF PROFESSIONAL STUDIES

David W. Wood..... Dean
 Mersiha Alic Director of Community Education Programs
 Julia Jordanich Director, Master of Science Criminal Justice
 Program
 Kelly Trusty Director, Master of Science in Leadership
 Program

**2011-2012
Combined SPS/TVC
ACADEMIC CALENDAR**

Fall 2011

August 29, 2011	Mon	Term 1 classes begin
September 5, 2011	Mon	No classes: Labor Day
October 22, 2011	Sat	Term 1 ends
October 24, 2011	Mon	Term 2 classes begin
November 23-26	Wed-Sat	No classes: Thanksgiving Holiday
December 17	Sat	Term 2 ends
December 19, 2011 – January 2, 2012 Student Break		

Spring 2012

January 2, 2012	Mon	No Classes: New Year's Day observed
January 3, 2012	Tuesday	Term 1 classes begin
January 16, 2012	Mon	No classes: Martin Luther King, Jr. Day
February 25, 2012	Sat	Term 1 ends
February 27, 2012	Mon	Term 2 classes begin
April 6, 2012	Fri	No Classes: Good Friday
April 21, 2012	Sat	Term 2 ends
April 23-28, 2012	Mon-Sat	Student Break

Summer 2011*

April 30, 2012	Mon	Term 1 (eight-week) begins
May 5, 2012	Sat	Commencement
May 14, 2012	Mon	Term 1 (TVC six-week) begins
May 28, 2012	Mon	No Classes: Memorial Day
June 23, 2012	Sat	Term 1 (both sessions) ends
June 25, 2012	Mon	Term 2 (both sessions) begins
July 4, 2012	Wed.	No Classes: July 4 th
Aug 4, 2012	Sat	Term 2 (six week) ends
Aug 18, 2012	Sat	Term 2 (eight week) ends
Aug 20-25, 2012 Student Break		

*Seated face-to-face (eight week) and online TVC (six week) classes meet on different term schedules during the summer semesters.

TABLE OF CONTENTS – UNDERGRADUATE ADMISSION

Undergraduate Admission.....	16
General Application Procedures	16
Ivy Tech and Harrison College Discounted Tuition.....	19
Transfer Credit	19
Tuition and Fees.....	19
Office of Financial Aid	21
Career Services	24
Academic Information	24
General Education Philosophy	25
General Education Requirements Bachelor Table	28
General Education Requirements Associate Table	30
Graduation Requirements	11
Academic Programs	37
Undergraduate Degree Program Requirements.....	38

UNDERGRADUATE ADMISSION

Trine University admits applicants on the basis of scholastic achievement and academic potential, and selection is made without regard to race, religion, color, gender, sexual orientation, or age. Admission to Trine University is not an entitlement; attendance at Trine is a privilege. Prospective students are encouraged to visit the regional education center in their area. Those wishing to arrange a visit should call or e-mail the center of interest. Contact information can be found at edge.trine.edu.

Trine University accepts online applications only, accessible via the Internet at edge.trine.edu or through our Virtual campus at trine.edu/virtualcampus. Online applications may be sent by following the directions given on our Web site. No application fee is required.

GENERAL APPLICATION PROCEDURES AND REQUIREMENTS

In addition to a completed application form, applicants must provide the following items:

- evidence of graduation from an accredited high school or an acceptable score on the General Education Development (GED) examination.
- Official high school transcripts must be sent from the originating high schools or official documentation from GED provided directly to the student support specialist of the education center they plan to attend.
- Transfer students must request official transcripts from all post-secondary schools they attended, official transcripts must be sent directly to the student support specialist of the education center they plan to attend.

Results from the American College Aptitude Test (ACT) or the Scholastic Aptitude Test (SAT) are not required for the School of Professional Studies student.

A person may apply as a non-degree student without showing evidence of a high school diploma or an acceptable score on the GED test. Non-degree students who later apply for degree status must meet the degree requirements of the program to which they seek admittance. Information can be obtained through the education center director or student support specialist.

AWARDING OF CREDIT BY EXAMINATION

ADVANCED PLACEMENT (AP) EXAMINATION

An applicant for freshman standing who achieves a grade of 3, 4, or 5 on the College Entrance Examination Board's Advanced Placement (AP) Examination may be granted credit. Results of the examination should be sent to the regional education center director.

CLEP AND DANTES TESTING

Trine University awards credits based upon the College Level Examination Program's (CLEP) general and subject matter examinations as well as all Defense Activity of Non-Traditional Education Support (DANTES) examinations. Trine University is not a testing site for either examination program. For information regarding CLEP or DANTES credits, contact the regional education center director.

Trine University accepts the American Council on Education's recommended passing score in effect at the time of the administration of the examination. Upon achieving a score considered "passing" by Trine University, CLEP or DANTES credit will be listed on the student's transcript for the number of semester hours recommended in the official CLEP or DANTES publications. The student's education center director will determine whether the CLEP or DANTES credit received will apply toward a portion of the requirements in the University's general education requirements, school requirements, major requirements, or electives. Students should contact their education center director for more information.

NON-COLLEGIATE SPONSORED INSTRUCTION

Trine University awards credit for college-level courses offered by business and professional organizations as recommended by the American Council on Education in its National Guide to Educational Credit. Credit is awarded for course work offered by the military as recommended by the American Council on Education in its Guide to the Evaluation of Educational Experiences in the Armed Services. Credits are awarded subject to the approval of the Office of the Registrar.

PRIOR LEARNING CREDITS

Students enrolled in the Bachelor of Applied Management degree or the Bachelor of Science in Criminal Justice degree may apply for prior learning credits. A student must have completed a minimum of 18 hours from Trine University before submitting prior learning documentation for consideration for credit. There is a \$100 fee for the evaluation of prior learning, and for every semester hour of credit received, there is a \$75 fee. (These fees are subject to change.) Applying for credit and paying the \$100 evaluation fee does not guarantee credit. Once the documentation has been reviewed by a three-member committee, and all approvals, modifications, and additional proof have been submitted, the documentation is sent to the dean of the School of Professional Studies, who submits the documentation to the Registrar. The credit becomes official upon the Registrar's acceptance of the final recommendation from the dean. These credits may only be used in the portion of the degree designated "degree-related electives" or "prior learning." Hours earned will be listed on the student's Trine University transcript as "Prior Learning Credit." Trine University cannot guarantee the transferability of prior learning credits to another institution.

TRANSFER STUDENT ADMISSION

A student at an approved institution of higher learning who is not on academic probation is eligible to apply for admission to Trine University. In addition to following the general application for admission procedures, the applicant must have a satisfactory academic record at the previous institution(s) of higher learning.

Trine University encourages applications from community college graduates. It has transfer relationships that facilitate the application process and offer special benefits with the following two- and four-year institutions:

- Bethel College, Mishawaka, IN
- Genessee Community College, Batavia, NY
- Glen Oaks Community College, Centreville, MI
- Harrison College, all Indiana locations
- Ivy Tech Community College, all Indiana locations
- Jackson Community College, Jackson, MI

- Joliet Junior College, Joliet, IL
- Kellogg Community College, Battle Creek and Coldwater, MI
- Lansing Community College, Lansing, MI
- Lorain Community College, Elyria, OH
- Northwest State Community College, Archbold, OH
- Owens Community College, Toledo, OH
- Southwestern Michigan College, Dowagiac, MI
- Vincennes University, Terre Haute, IN

IVY TECH AND HARRISON COLLEGE DISCOUNTED TUITION

Students who have graduated from Ivy Tech Community College or Harrison College may be eligible for discounted tuition. Certain criteria apply to receiving and continuing to receive the discount.

A student must meet the qualifying criteria:

- Graduated from Ivy Tech Community College/Harrison College with an associate's degree and cumulative grade point average of 3.0 or better.
- Maintain a 3.0 while at Trine University
- Complete 30 hours at Trine University and fulfill all program requirements
- May be a full or part-time student
- Please note: To qualify for graduation honors a student must complete 40 hours at Trine University.

The Ivy Tech discount may be used for a second bachelor's degree if all other requirements are met. The discount may not be applied to Trine University's graduate programs.

TRANSFER CREDIT

Credits earned at an approved institution with grades of "C" or better may be transferred to Trine University. Credits acceptable toward a Trine University degree shall be determined by the School of Professional Studies. A preliminary transfer credit evaluation may be determined by the academic advisor located where the student is enrolled. A final evaluation of transfer credit shall be made when the University receives an official transcript of the completed course work. To facilitate the evaluation, the applicant should provide a catalog or guide which contains descriptions of the courses completed elsewhere.

READMISSION

A student whose enrollment is interrupted for any reason for more than two consecutive eight-week sessions, not including summer, is considered to have withdrawn and must be readmitted. Candidates for readmission must complete a readmission application through the student support specialist of the educational center where the student intends to enroll.

Any student dismissed for academic or other disciplinary reasons must make application through the student support specialist for readmission and receive the approval from university's readmit committee before being allowed to enroll in classes.

TUITION AND FEES

PAYMENT OF EDUCATION COSTS

Payment of tuition and fees is due at the Business Office on the date indicated on the student's bill. Any financial aid awarded will be deducted from the student's charges each semester. Each student is responsible for purchasing books using funds from personal and/or financial aid sources. Any student with outstanding financial obligations to the University will not be permitted to register for any subsequent semester or receive a transcript or diploma until the obligation is fulfilled. Students maintaining a balance owed to the University will be assessed late fees and will be responsible for collection and/or costs if such efforts should become necessary.

APPLICATION FEE

There is no application fee for online applications.

TUITION RATE

A per credit hour fee is charged for each course and is subject to change. Please visit *trine.edu* to learn about the current rate or contact the education center director for current fee and tuition information.

AUDITING FEE

A fee is charged per credit hour for auditing courses. To learn the amount of this fee, call the Business Office at 260.665.4108.

TRANSCRIPT FEE

A per copy fee is assessed for issuance of official Trine University transcripts. A transcript will not be issued to a student with an outstanding financial obligation to the University.

OTHER COSTS

BOOKS AND SUPPLIES

Book and supply expenses vary depending on the number of courses taken and the major, and are the personal obligation of each student. Students can order books from the Trine University bookstore through the online order process by clicking on “Bookstore” at the bottom of the Web page at *trine.edu*. Students may also visit the bookstore in person or call the bookstore at 260.665.4153. Books ordered online or by phone will be mailed directly to the student. Books for online courses offered through the consortium need to be ordered through the consortium.

REFUNDS

Refunds of credit balances due to excess financial aid or overpayment will be refunded after the drop/add period. A student withdrawing from a course may be eligible for a full or partial refund of tuition, depending on when the official withdrawal takes place. The student must make all refund requests electronically. Directions and links will be emailed to the student’s Trine University email address.

A student is not officially withdrawn until the necessary withdrawal forms, complete with the required signatures, have been filed with the Office of the Registrar. Nothing other than an official withdrawal permits refunds. Refunds follow the schedule on the next page.

TUITION:

- Week one—100%

A \$50 administration fee will be assessed for “exception” drops (per occurrence).

Please note: If a student receiving financial aid withdraws during the semester, that aid is subject to the federal refund calculation.

Refunds are processed through the Business Office approximately one month after a student officially withdraws and all charges/credits are posted.

The official withdrawal form is required for a refund to be processed.

Any student who is dismissed or suspended for misconduct shall not be entitled to any refund. No refund is provided at any time on fees, books and supplies, or personal expenses.

WITHDRAWAL

If a student decides to drop or withdraw after registering for classes:

- The student is responsible for completing the proper paperwork with the educational center director. By failing to do so, the student accepts financial responsibility for all charges incurred on their account.
- The student may be eligible for a refund depending on when the official withdrawal takes place.
- It may result in a change in the total amount due for the semester.

- It may result in a loss of financial aid from a federal or state source.
- Failure to attend classes does not constitute a drop/withdrawal.

GRADUATE PROGRAM

All information listed above must be followed for the graduate program as well. (See Graduate Information section)

OFFICE OF FINANCIAL AID

PURPOSE

The Office of Financial Aid provides assistance to students to make a college career at Trine University affordable. To provide such assistance allows students to attend who might otherwise not have the opportunity. Grants and loans are awarded based upon financial need as determined by the federal and state governments after completion of the Free Application for Federal Student Aid (FAFSA).

APPLICATION PROCEDURES

All students applying for financial aid must complete the Trine University application for admission to be accepted into a degree-seeking program and complete a FAFSA.

The FAFSA for new applicants or the Renewal FAFSA for returning applicants, is the primary application for assistance. This can be filed on the Web at www.fafsa.gov. It is used to determine eligibility for Federal Pell Grants, Supplemental Educational Opportunity Grants, Direct Loan Programs. It is also the application for undergraduate Indiana residents to apply for tuition assistance program from the state of Indiana.

The priority application deadline for Indiana residents is March 10 of each year for fall/spring/summer enrollment; however, aid is awarded throughout the school year. Current students need only complete the FAFSA once each school year before March 10 to reapply for all aid. Trine University's school code for the FAFSA is 001839.

FEDERAL GRANTS

- (Amounts vary depending upon federal funding.)
- Federal Pell Grants—\$500 to \$5500

STATE GRANTS

- Indiana Higher Education Award (INHEA)—\$100 to \$706
- Freedom of Choice (FOC)—\$100 to \$6,350
- Twenty-first Century—up to \$5,500

FEDERAL DIRECT LOAN PROGRAM

Stafford Loans are either subsidized or unsubsidized. A student must be enrolled half-time (6 credit hours) to be eligible and the maximum amount a student can borrow is based upon grade level status.

A subsidized loan is awarded on the basis of financial need. The student is not charged interest until repayment begins because the federal government “subsidizes” the interest. These loans have a 10-year payoff and a six-month grace period beginning after the student leaves college, either by graduation or withdrawal from the University, or by dropping below half-time status.

An unsubsidized loan is not awarded on the basis of need. A student must be enrolled half-time to be eligible. A student is charged interest from the time the loan is disbursed until it is paid in full. A student can choose to pay the interest while enrolled in school or defer those payments until repayment. These loans also have a 10-year payoff and a six-month grace period.

The Parent Loan for Undergraduate Students (PLUS) is designed to help parents assist their dependent children with their educational expenses.. Parents will need to go through a pre-approval process, which is based on specific credit criteria. There is no grace period with a PLUS loan. Parents must begin repaying both principal and interest while the student is still in school, specifically 45 days after the second disbursement.

ELIGIBILITY

Additional awards may be available to a student with extreme economic need, after his or her FAFSA has been received by the March 10 priority deadline. Eligibility requirements and responsibilities for need-based assistance are as follows:

1. Student must be a U.S. citizen or an eligible non-citizen.
2. Student must be accepted for admission to Trine University.
3. Student must submit documentation to complete his or her financial aid file.
4. Student must be enrolled in the minimum number of credit hours needed to fulfill specific program requirements.
5. Student must complete the FAFSA by March 10.
6. Student must be accepted as a regular student in an eligible program that leads to a degree.
7. Student must not be in default on any Title IV loan (Perkins, NDSL, Federal Stafford, GSL, FSL) or owe a repayment on any Title IV grant (Federal Pell Grant, FSEOG, ACT, SMART, or TEACH grant) received for attendance at any institution.
8. Student must be registered with the U.S. Selective Service System if required by law.

AWARDING

Awards are processed by the Office of Financial Aid in accordance with University policy and the regulations governing the various aid programs. The University policy is established by the financial aid committee, and the student financial aid director is responsible for determining financial aid eligibility based on the results the Department of Education submits to Trine University after packaging begins for the upcoming session. An award letter detailing the type and amount of each award is mailed as soon as a FAFSA is received and the student has enrolled in classes.

Additional descriptions of aid programs and satisfactory academic progress standards are included in the SPS Trine University Student Handbook.

DISBURSEMENT

Aid will be disbursed as follows and based on eligibility at the time of disbursement: one half of Stafford Loans and Pell at approximately four weeks into the first term with all other state aid, other half of Stafford Loans and federal grants to disburse approximately four weeks into the second term. Aid is subject to change based on a student's enrolled hours at the time of disbursement. This aid is credited to the student's account in the Business Office.

ENROLLMENT STATUS

Each type of aid requires students to enroll for a certain number of credit hours per two-term semester. Most federal aid requires at least half-time status (six credit hours); state and private aid requires full-time enrollment (a minimum of 12 credit hours).

MAINTAINING ELIGIBILITY

Currently enrolled students are required to maintain the appropriate grade point average for their aid. Students must maintain satisfactory academic progress by completing the required number of credit hours each academic year (see the SPS Student Handbook) and reapply for aid in the spring for the next academic year.

STUDENT RIGHTS AND RESPONSIBILITIES

Trine University is committed to working with each student to provide the best financial aid package possible. At the same time, each student has the responsibility to apply for the aid and to meet and maintain eligibility requirements. Following is a list of basic rights and responsibilities of the students in regard to financial aid:

- Students must apply for financial aid.
- Financial aid information and counseling will be available.
- Students will be considered for financial aid on a first-come, first-serve basis.
- Students will be notified in writing of their eligibility for financial aid.
- Students will be informed of the specific type of financial aid, the amount of each type of aid and the conditions to renew each type.
- Students will have the opportunity to review with the SPS Financial Aid Adviser the planning process by which awarded aid was determined.
- Students may request an additional review of their aid package with the director of financial aid.
- All students who receive financial aid are required to abide by the policies and regulations of Trine University.
- Students receiving financial aid must inform the Office of Financial Aid about additional awards.
- Students must maintain satisfactory academic progress toward academic goals.
- Students must maintain good social standing.
- Students must reapply for financial aid between Jan. 1 and March 10.
- Students must report to the Office of Financial Aid when transferring to another school.
- If applicable, students must participate in the Federal Stafford Loan entrance and exit interviews.
- Students must report to the Office of Financial Aid when adding or dropping classes after the term begins.

APPEALS

Appeals to financial aid decisions can be filed with the director of financial aid, who will present them to the financial planning review committee. Appeals must be filed in a timely manner.

REFUNDS AND REPAYMENTS

If a student withdraws from classes during the semester, a calculation is required to determine how much money may be refunded to the student's account and how much must be refunded back to the various federal and state programs. (See the fees section for information about the tuition refund schedule.) For current students, the federal refund calculation occurs through the 60 percent point of the term. Examples of these calculations may be seen in the Office of Student Financial Aid.

COUNSELING SERVICES

Counseling Services provides assistance and support to students on an individual or group basis. All counseling is provided free of charge and is strictly confidential. The Trine University counselor is a state licensed clinician who is experienced in providing services for a wide array of personal and/or mental health needs. Other areas in which students may seek services include stress management, decision-making, relationship issues, conflict resolution, family concerns, academic performance, career/major selection, separation and loss issues, alcohol or substance use, as well as other matters which may be detrimental to a successful college experience.

Counseling Services also provides outreach and consultation to regional education center organizations, groups or classes. Outreach programs are available to provide prevention education for a variety of topics, such as balancing responsibilities, developing healthy relationships, enhancing personal safety, confronting alcohol and/or drug use, and any other issues of primary concern to students.

Counseling Services is located in the Office of Student Life Office 260.665.4172 in the University Center. The counselor is available by appointment weekdays from 8 a.m. to 5 p.m. Evening appointments are available upon request.

DISCIPLINE STRUCTURE

See SPS Student Handbook

CAREER SERVICES

Our goal is to equip you with the tools you need to get major-related work experience prior to graduation and to help you secure a full-time job upon graduation. We offer one-on-one counseling, workshops with guest speakers, and host alumni and employers who visit campus for recruiting. We provide assistance with the following:

- Resume/Cover Letter Writing
- Interviewing Techniques
- Job Search Strategies
- Employer Information sessions
- On-campus Interviews
- Career & Internship Fairs
- Internships and co-ops
- Networking
- Career Planning/Graduate School

Join our Facebook group, “Trine University Career Services” to get instant updates on what’s happening. Get to know us prior to your part-time, internship, co-op, and/or full-time job search. Register with our office at www.trinecareers.org and stop in to introduce yourself. Career Services is located on the first floor of Shambaugh Hall on the main campus. For more information, contact Linda Bateman, Director of Career Services, at 260.665.4124 or batemanl@trine.edu.

ACADEMIC INFORMATION

ACADEMIC ADVISING

Each student is assisted by the education center director or assigned faculty adviser in planning a program to meet graduation requirements and career goals. It is, however, the student’s responsibility for meeting the academic program requirements presented in the catalog.

CHANGING A MAJOR

To change a major, students must get the approval of the education center director or assigned faculty adviser. Change-of-major forms are available at the regional education center. Admission requirements for each major are available from the education center director.

A student who changes a major is subject to the program requirements in effect at the time of the major change.

When a student changes his or her major, all transcripts, including the Trine University transcript, are re-evaluated. When changing majors, courses with grades of less than a “C” can be dropped from the GPA calculation if one of the following two conditions is met:

1. When changing majors from one category of degrees to another category as follows:

Category 1: Business degrees (Bachelor of Applied Management, Bachelor of Business Administration, Associate in Accounting, Associate in Business Administration)

Category 2: Arts & Sciences degrees
(Bachelor of Science in Criminal Justice, Bachelor of Science)

Category 3: Technology degrees (Associate of Science, Associate of Applied Science)

2. When changing from a four-year program to a two-year program or from a two-year program to a four-year program

Additional conditions:

- If courses are not required in the new major.
- If student is not currently enrolled in those courses.

Dropped courses may not be repeated in the new major.

In cases where a student is readmitted to a degree program in which he or she was previously enrolled, all grades earned during enrollment in that degree program must be included in the cumulative grade point average.

FULL-TIME STUDENT

A full-time undergraduate student is one who is carrying a minimum of 12 academic credit hours or a graduate student who is carrying a minimum of nine credit hours over a two-session, 16-week semester. If a student wishes to register for more than nine credit hours per eight-week session, he or she must have written permission as follows: 10 credits per session requires permission from the education center director; 11 credits per session also requires permission from the dean; and 12 or more credits per session requires permission from the Vice President for Academic Affairs.

CLASSIFICATION OF STUDENTS

CLASS	CREDITS
Freshman	0-28
Sophomore*	29-59
Junior	60-89
Senior	90+

*Students enrolled in associate degree programs remain sophomores when they have 60 or more credits.

NON-DEGREE STUDENT

An applicant may be admitted to Trine University as a non-degree student in certain programs. The non-degree student is limited to a maximum of 30 semester credit hours attempted. To continue taking courses after 30 credit hours are earned, the non-degree student must apply for and be accepted to degree status. A change from non-degree to degree status is processed by the admission personnel. An official high school transcript is required for admission as a non-degree student. Any course requiring pre-requisite courses will require a college transcripts before enrolling.

GENERAL EDUCATION PHILOSOPHY

The objective of the general education requirements is to provide the Trine University graduate with skills necessary to think critically and to communicate clearly with persons in all professions. It is designed to ensure breadth of knowledge and to promote intellectual inquiry and critical thinking.

GENERAL EDUCATION OUTCOMES

After completion of the general education curriculum, the student will be able to:

- Present written thoughts in an effective manner using correct grammar, punctuation and organization of ideas,
- Communicate thoughts orally in an effective manner,
- Demonstrate critical thinking skills utilizing information and thought processes by various perspectives listed in the philosophy and
- Demonstrate use of quantitative problems solving and reasoning skills.

The General Education Requirements consist of courses in two categories: Skills and Perspectives.

Skills courses include written and oral communication courses as identified by individual degree programs.

Perspectives courses are required for all degrees, with specific requirement information identified in the General Education Requirement section of the catalog. Perspectives courses are divided into the following areas:

Scientific—to learn to use analytical tools and applications in the study of that which is material.

Mathematical—to learn to connect mathematical ideas and applications in the study of that which is material

American—to gain knowledge useful in understanding the interrelationships between the America and other cultures.

Global—to become sensitized to differences and similarities among people in various parts of the world.

Arts, Culture, Philosophy & Society—to develop an appreciation for how humans express themselves creatively in the fine arts, such as music, painting, architecture, film, literature, poetry, and theater, as well as in culture, philosophy, and society.

Humanistic—to learn to appreciate the achievements which humanity has accomplished.

Social Sciences—to gain insight into the effects of human behavior on the individual, society, and the world through history as well as in current times.

Computer Literacy—to master the computer and other pertinent technology.

GENERAL EDUCATION REQUIREMENTS FOR ALL BACHELOR DEGREES*:

(A SUMMARY SHEET IS BELOW)

Area		# OF SEMESTER HOURS
Written Communication	(must include ENG 103 and either ENG 113 or ENG 133)	6
Oral Communication	(SP 203 or COM 163)	3
Social Sciences & Humanities	(see checklist on the summary sheet)	12
Computer Literacy		3
Mathematics & Science	(must include at least 1 course in mathematics and 1 course in science)	10
Other	(additional hours to be taken from the above categories**)	8
TOTAL		42

*A course must be taken from each perspective area. A course may satisfy more than one perspective.

GENERAL EDUCATION REQUIREMENTS CHECKLIST FOR BACHELOR DEGREES MINIMUM CREDITS REQUIRED: 42

Communication		
ENG 103		_____
ENG 113 or ENG 133		_____
SP 203 or COM 163		_____
Computer Literacy		_____
Mathematics		_____
Science		_____
1 additional math/science		_____
Other	Course	Credit
8 semester hours must be taken from any of the categories listed above.	_____	_____
	_____	_____
	_____	_____
12 additional semester hours must be chosen from those listed in the table on the next page and must include at least one course from each of the three rows and one course from each of the two columns in the table. A course may satisfy more than one perspective.	_____	_____
	_____	_____
	_____	_____
Total	_____	

Note: some of these courses are available on the main campus only.

	HUMANITIES		SOCIAL SCIENCES
Global	COM 233		ECO 213
	ENG 204		ECO 223
	ENG 253		ECO 363
	ENG 263		ECO/GEO 343
	ENG 323		ECO 383
	ENG 363		GEO 223
	ENG 423		GEO 303
	ENG 433		GEO/GOV 353
	GER 104		GOV 313
	GER 114		GOV/HIS 323
	GER 203		GOV/HIS 363
	GER 213		HIS 203
	SPN 103		HIS 213
	SPN 113		
	SPN 123		
American	COM 123		ECO 213
	COM 233		ECO 223
	ENG 214		ECO/SOC 243
	ENG 263		ECO 323
	ENG 403		ECO/HIS 393
			GEO 313
			GOV 113
			GOV 333
			GOV/HIS 343
			GOV/PSY 373
			GOV/HIS 403
			HIS 103
			HIS 113
			HIS 423
			HIS 433
Arts, Culture, Philosophy, & Society	ARC 292	GER 104	GEO 303
	ART 252	GER 114	PHL/SOC 333
	COM 203	GER 203	PSY 113
	COM 233	GER 213	PSY 313
	COM 363	HNR 401	PSY 323
	ENG 153	HNR X1X	PSY 333
	ENG 204	MUS 273	PSY/SOC 343
	ENG 212	PHL 203	SPY 353
	ENG 214	PHL 313	PSY 383
	ENG 253	PHL 323	PSY 403
	ENG263	PHL/SOC 333	PSY 413
	ENG 333	PHL 343	SOC 103
	ENG 403	SP 102	SOC 313
	ENG 423	SP 212	SOC 323
	ENG 433	SPN 103	
	ENG 443	SPN 113	
	ENG 463	SPN 123	
	FLM 202		

GENERAL EDUCATION REQUIREMENTS FOR ALL ASSOCIATE DEGREES*:

(A SUMMARY SHEET IS BELOW)

AREA		# of semester hours
Written Communication	(must include ENG 103 and either ENG 113 or ENG 133)	6
Social Sciences & Humanities	(see checklist on the summary sheet)	6
Computer Literacy		3
Mathematics & Science	(must include at least 1 course in mathematics and 1 course in science)	7
TOTAL		22

*The above choices must include at least one course from the following perspectives areas: Social Sciences, Humanistic, Computer Literacy, Mathematical, and Science.

GENERAL EDUCATION REQUIREMENTS CHECKLIST FOR ASSOCIATE DEGREES MINIMUM CREDITS REQUIRED: 22

ENG 103	_____	_____
ENG 113 or ENG 133	_____	_____
Computer Literacy	_____	_____
Mathematics	_____	_____
Science	_____	_____
	Course	Credit
6 additional semester hours must	_____	_____
be chosen from those listed on	_____	_____
the next page and must include	_____	_____
at least one course from each of		
the two columns in the table.		
	Total	_____

Note: some of these courses are available on the main campus only.

	HUMANITIES		SOCIAL SCIENCES
Global	COM 233		ECO 213
	ENG 204		ECO 223
	ENG 253		ECO 363
	ENG 263		ECO/GEO 343
	ENG 323		ECO 383
	ENG 363		GEO 223
	ENG 423		GEO 303
	ENG 433		GEO/GOV 353
	GER 104		GOV 313
	GER 114		GOV/HIS 323
	GER 203		GOV/HIS 363
	GER 213		HIS 203
	SPN 103		HIS 213
	SPN 113		
	SPN 123		
American	COM 233		ECO 213
	ENG 214		ECO 223
	ENG 263		ECO/SOC 243
	ENG 403		ECO 323
			ECO/HIS 393
Arts, Culture, Philosophy, & Society			GEO 313
			GOV 113
			GOV 333
			GOV/HIS 343
			GOV/PSY 373
			GOV/HIS 403
			HIS 103
			HIS 113
			HIS 423
			HIS 433
			GEO 303
			PHL/SOC 333
			PSY 113
			PSY 313
			PSY 323
			PSY 333
			PSY/SOC 343
			SPY 353
			PSY 383
			PSY 403
			PSY 413
			SOC 103
			SOC 313
			SOC 323
	ARC 292	GER 104	
	ART 252	GER 114	
	COM 203	GER 203	
	COM 233	GER 213	
	COM 363	HNR 401	
	ENG 153	HNR X1X	
	ENG 204	MUS 273	
	ENG 212	PHL 203	
	ENG 214	PHL 313	
	ENG 253	PHL 323	
	ENG263	PHL/SOC 333	
	ENG 333	PHL 343	
	ENG 403	SP 102	
	ENG 423	SP 212	
	ENG 433	SPN 103	
	ENG 443	SPN 113	
	ENG 463	SPN 123	
	FLM 202		

GRADUATION REQUIREMENTS

1. Specific degree requirements: Students must complete the degree requirements specific to their programs. Once in a program, if the requirements change, students have the option of graduating under the new requirements. Students who re-enter the University after an absence of more than one academic year are subject to the degree requirements in effect at the time of re-entry.
2. General Education Requirements: All Trine University students receiving a baccalaureate or associate degree must meet the general education requirements. Details regarding the general education philosophy and requirements are presented immediately before this section in the catalog.
3. A cumulative grade point average of not less than 2.0 must be achieved for all Trine University courses.
4. All required courses or approved substitutions must be completed as described in the respective degree programs.
5. Candidates for graduation must file with the education center director an intent to graduate no later than one semester before the final semester of attendance in which degree requirements shall be completed.

COMMENCEMENT PARTICIPATION

All spring and summer semester graduates are eligible to participate in the annual spring commencement ceremony. Fall semester graduates are eligible to participate in the spring commencement ceremony prior to completing their degrees only if, by the end of the spring semester, they have 18 or fewer credit hours to complete to earn their degrees. If a fall graduate has more than 18 credit hours to complete, the student is invited to attend the commencement ceremony the following spring. Graduate students may participate in commencement ceremonies after successful completion of degree requirements.

COURSE SUBSTITUTIONS

An alternate course may be substituted for one required in a student's major if the student cannot schedule the required course without undue hardship. The substitution must be requested by the student's education center director. Proper notation must be made in the student's record and approval granted prior to the substitution. The substitution cannot be made simply on the request of the student to take a different course from the one required..

ACADEMIC RESIDENCY REQUIREMENT

- To be eligible for a baccalaureate degree, a student must earn a minimum of 30 credits at Trine University.
- To be eligible for an associate degree, a student must earn a minimum of 16 credits at Trine University.
- The last 30 credits of a four-year degree program or the last 16 credits of a two-year degree program must be taken at Trine University unless a waiver is granted by the academic dean, upon the recommendation of the education center director.

THE SECOND DEGREE

A candidate for a second Trine University baccalaureate degree is required to complete a minimum of 30 credit hours in residence above the total credit requirements for the first baccalaureate degree. In addition, the candidate must complete all other requirements for the second degree. A candidate for a second Trine University associate degree is required to complete a minimum of 16 credit hours in residence above the total credit requirements for the first associate degree as well as meet all course requirements. A candidate for a Trine University baccalaureate degree who has already earned an associate degree from the University must complete a minimum of 46 Trine University credit hours.

Two baccalaureate degrees may be received at the same time provided all requirements for both degrees have been met, and the student has earned a minimum of 30 credit hours more than the degree with the lower minimum hour requirement. Two associate degrees may be received at the same time provided all requirements for both degrees have been met, and the student has earned a minimum of 16 credit hours more than the degree with the lower minimum hour requirement. A Second Degree Continuation form must be submitted to the Office of the Registrar prior to completing the first degree. Certain restrictions apply to students utilizing financial aid benefits.

SECOND MAJOR

Second majors must be declared and are possible with certain degree programs. Students should check with their regional education center director, if interested. Students are subject to the program requirements in effect at the time the major is declared.

SCHOLASTIC AWARDS AT GRADUATION

GOLD KEYS—Gold Keys are awarded to bachelor degree students enrolled in the School of Professional Studies who have earned GPAs of 3.75 or better while carrying at least 12 credit hours in each of four consecutive semesters.

SILVER KEYS—Silver Keys are awarded to associate degree students enrolled in the School of Professional Studies who earn 3.75 grade point averages or better while carrying at least 12 credit hours in each of two consecutive semesters.

GRADUATION WITH HONORS—An undergraduate candidate for graduation will have his or her diploma inscribed as graduating cum laude if he or she achieves a cumulative grade point average of 3.50 to 3.749, magna cum laude if he or she achieves a cumulative grade point average of 3.75 to 3.949, or summa cum laude for a cumulative GPA of 3.950 or higher. The grade point average will be computed on the basis of all courses taken at Trine University. To qualify for the award, a candidate for a bachelor's degree must earn a minimum of 40 semester hours at Trine University, and a candidate for an associate degree must earn a minimum of 20 semester hours.

HONORS DAY—For the purpose of Latin Honors recognition at Honors Day, the grade point average requirement will be based upon the student's cumulative GPA before spring grades are posted. For such recognition, a minimum of 40 Trine University credits must be completed by the end of the spring term for a bachelor's degree or a minimum of 20 Trine University credits for an associate degree. Latin honors will be listed on the diploma and transcript based upon the student's cumulative GPA after the final term's grades are posted and the student has met all degree requirements.

GRADING SYSTEM

The grading system is as follows:

A	Excellent	4.0
B+	Very Good	3.5
B	Good	3.0
C+	Above Average	2.5
C	Average	2.0
D+	Below Average	1.5
D	Poor (lowest passing grade)	1.0
F	Failure	0.0
FI	Failure (original grade of I)	0.0
S	Satisfactory	not figured into GPA
U	Unsatisfactory	not figured into GPA
I	Incomplete	not figured into GPA
IP	In progress (grade deferred)	not figured into GPA

W	Withdrawal before completion of 80% of the semester
WP	Withdrawal after completion of 80% of the semester with passing work at the time of withdrawal.

GRADE OF INCOMPLETE (issued only under special circumstances)

Any Trine University School of Professional Studies student who is granted an “Incomplete” course grade must have a documentable illness, emergency, or other situation beyond their control that prevents them from completing the course’s requirements by the end of the academic term. An “Incomplete” is a temporary grade that is assigned at the instructor’s discretion, with the approval of the Campus Director.

A student’s request for an “Incomplete” will be approved only if ALL of the following circumstances are met:

1. An illness or other extenuating circumstance that legitimately prevents the student from completing required coursework by the due date. (Written documentation is required to be presented to the instructor and Campus Director); and
2. The student’s attendance has been satisfactory (per Financial Aid standards); and
3. The course requirements specified in the syllabus are 75 percent successfully completed; and
4. The student submits their request in writing during the current term, prior to the final drop date of the term.

A plan for completion of the course must be prepared and attached to the student’s request, which must include:

1. The course requirements that must be completed by the student in order to change the “Incomplete” to a letter grade; and
2. Specific due dates by which each course requirement must be completed by the student; and
3. Signatures indicating agreement and approval of the plan by the Student, Instructor, and Campus Director.

The remaining course requirements must be completed within eight weeks of the end of the semester in which the “Incomplete” was granted. If the student fails to meet any of the specific due dates, the “Incomplete” grade will be changed to the appropriate letter grade based on the work completed. The Instructor is responsible for completing the grade change form and submitting to the Campus Director who will then submit it to the Registrar’s Office.

GRADE OF “IN PROGRESS”

The “IP” (In Progress) grade is to be given only in courses so designated by the respective schools. The “IP” grade is designed for courses which require more than one semester for completion. An “IP” grade not removed within one year from the end of the semester in which the “IP” grade was issued will be converted to an “FI” by the registrar. An “IP” grade may not be removed by registering again for the course.

COURSE REPEAT

Course repeat means that a student may retake a course at Trine University for a better grade. When a student has repeated a course, the honor points for the higher grade are substituted.

The student’s record will not show additional hours attempted for the repeated course. Additional earned hours are given if a student passes a class where an “F” or “U” grade was originally received.

Courses which are repeated remain on the student’s permanent record (transcript).

FAILING GRADES

Credit for a course failed at Trine University may not be obtained by examination.

WITHDRAWAL FROM CLASS

A student may withdraw from class through 80 percent of the session, provided the student obtains the proper form and obtains education center director approval. All students dropping below full-time status must have the approval of the Office of Financial

Aid. The completed form shall be submitted by the education center director to the registrar before 80 percent of the semester is completed.

No classes shall be dropped after the completion of 80 percent of the semester except for circumstances beyond the control of the student, such as illness, family emergency, or other situations. Permission to withdraw after the completion of 80 percent of the semester must be obtained from the School of Professional Studies dean. If permission is granted, a grade of “WP” will be issued if the student was passing at the time of withdrawal.

A grade of “F” will be issued if the student was failing and will count toward the student’s cumulative and semester grade point averages. Any deviation from the policy will be considered an unofficial withdrawal, and a grade of “F” will be issued.

COURSE AUDIT

To audit is to take a course for no credit. A course may be audited only if space is available in the course. The approval of the student’s academic advisor is required. A change to credit status is permissible if completed during the normal add period. Auditors shall receive a grade of “AU.” At the discretion of the instructor, an auditor may participate in class discussion and take examinations.

SCHOLASTIC AWARDS AT THE END OF EACH SEMESTER

THE PRESIDENT’S LIST: A School of Professional Studies student whose semester grade point average is 3.75 or better while carrying at least 12 credit hours will be placed on the President’s List.

THE DEAN’S LIST: A School of Professional Studies student whose semester grade point average is between 3.50 and 3.749 while carrying at least 12 hours will be placed on the Dean’s List.

CLASS ATTENDANCE AND EXCUSED ABSENCES

Students are expected to attend all class and laboratory sessions. Absences may be permitted for reasonable causes such as illness, disabling injury, death, or serious illness in the immediate family, or in the case of a court order. Participation in University-sponsored activities shall also constitute a reasonable cause for absence from class. Written documentation of the reason for absence may be required and, in the case of University-sponsored events, such documentation will be provided by the University sponsor.

It is the student’s responsibility to discuss pending absences (field trips, unavoidable business trips, etc.) with his/her professor prior to the missed class period. The faculty member may require the student to complete any work due prior to the absence.

It is the instructor’s responsibility to present a class attendance policy to each class at the beginning of the semester. Decisions regarding submission of assignments will be at the instructor’s discretion, but students may not be penalized for absences due to reasonable cause.

ACADEMIC PROBATION

The academic performance of every student is monitored by the registrar to determine satisfactory progress. Students with GPAs below 2.0 will receive a letter warning them that they have fallen below the standard required for graduation.

Degree students who have attempted 59 or fewer semester hours at Trine University will be placed on academic probation when their cumulative honor points are more than six below the 2.0 graduation standard.

Degree students who have attempted 60 or more semester hours of course work must maintain a cumulative grade point average of 2.0 or be placed on academic probation. Transfer hours accepted into a degree program are added to Trine University hours attempted for purposes of determining the 60 hours attempted. (See chart on this page for further explanation of required GPA.)

A student on academic probation will have a period of one semester (two consecutive eight-week sessions) to reach minimum standards or be dismissed. After a period of not less than one semester (not including summer school), a dismissed student may apply for readmission to the program from which he or she was dismissed. A dismissed student may be readmitted without a waiting period in any degree program to which the student can gain acceptance by the readmit committee.

Financial aid is not automatically reinstated when a dismissed student is readmitted.

Students on academic probation will have the following restriction placed on their attendance:

- They may not register for more than 12 credit hours. If they wish to take more, they must have permission from the School of Professional Studies dean.

The chart below lists the grade point average (GPA) required to be removed from probation. The required GPA is based on the number of GPA hours attempted at Trine University.

GPA HOURS ATTEMPTED	GPA	GPA HOURS ATTEMPTED	GPA
1	0.000	31	1.86
2	0.000	32	1.813
3	0.000	33	1.818
4	0.500	34	1.824
5	0.800	35	1.829
6	1.000	36	1.833
7	1.143	37	1.838
8	1.250	38	1.842
9	1.333	39	1.846
10	1.400	40	1.850
11	1.455	41	1.854
12	1.500	42	1.857
13	1.538	43	1.860
14	1.600	44	1.864
15	1.600	45	1.867
16	1.625	46	1.870
17	1.647	47	1.872
18	1.667	48	1.875
19	1.684	49	1.878
20	1.700	50	1.880
21	1.714	51	1.882
22	1.727	52	1.885
23	1.739	53	1.887
24	1.750	54	1.889
25	1.760	55	1.891
26	1.769	56	1.893
27	1.778	57	1.895
28	1.786	58	1.897
29	1.793	59	1.898
30	1.800	60	2.00

**When a student has attempted a total of 60 credit hours, INCLUDING transfer credits, a 2.0 GPA is required to be removed from probation.*

WITHDRAWAL FROM THE UNIVERSITY

VOLUNTARY

A student wishing to withdraw from the University during a term may obtain a withdrawal form from the regional education center director. A student who plans to return to Trine University within one calendar year may apply for a Planned Academic Leave (PAL). Details and application forms are available from the education center director.

UNAUTHORIZED

A student leaving the University during a term without officially withdrawing will receive “F” grades in all courses and will not receive refunds of any kind, including fees and deposits.

The withdrawal procedure will not take place automatically for a student who leaves a regional education center because of illness or family emergency. If official notification of withdrawal cannot be made in person, the student should contact the regional education center director in writing.

DISCIPLINARY

Students dismissed for disciplinary reasons during a term may be given “F” grades and monetary reimbursement will not be made for tuition or any other university fee.

THE ACADEMIC RECORD

A report of the student’s grades earned in all courses taken during each eight-week session is posted online end of each term. Grade reports are mailed to the permanent addresses of first year students.

In cases of unsatisfactory work, at the end of the 16-week semester, a student may be warned, placed on probation, or dismissed from the University.

A permanent record of all the student’s courses, credits, and grades earned is kept in the Office of the Registrar. The student should maintain a record of courses, credits, and grades each term and check from time to time to see that this record agrees with the University version. The official record may also help the student determine eligibility for any activity that requires meeting specific scholastic standards. Copies of the transcript are available to the student upon written request and advance payment, as determined per copy.

RELEASE OF INFORMATION FROM STUDENT ACADEMIC RECORDS

To ensure compliance with the federal government’s Family Education Rights and Privacy Act (FERPA), the following general principles and procedures govern the release of information from student academic records.

A written request signed by the student whose name appears on the transcript and that contains information such as date of birth and/or the Trine University student identification number, is required before a University transcript or other information from the student’s academic record may be released. Trine University will not release copies of transcripts from another institution. Exceptions to the above statements are outlined below:

- The Office of the Registrar may release transcripts or information from academic records, including reports of academic standing, to administrative and faculty members of Trine University whose responsibilities require this information.
- Public directory information from student records may be released at any time unless restricted by the student. This includes the student’s name, local and permanent addresses, telephone numbers, e-mail address, date and place of birth, major field of study, class year, participation in officially recognized activities, dates of attendance, degrees, awards received, and photographs.
- Information pertaining to graduation and honors achieved may be released for publication unless otherwise restricted by the student.

Upon proper identification, a student will be shown the following:

- His or her Trine University permanent academic record, including the student's file and transcript.
- His or her transcripts from another institution.

A hold may be applied to the release of a transcript, or other information requested from an academic record, for a student who has an overdue indebtedness to the University.

A student may obtain a maximum of five unofficial (personal) copies of his or her Trine University transcript at no charge while attending the University. All official transcripts, bearing the registrar's signature and school seal, are \$3 per copy. Additional unofficial transcripts are also \$3 per copy. All pricing is subject to change.

ACADEMIC PROGRAMS

The School of Professional Studies offers a variety of degrees, each with its own special merits and opportunities. All programs are designed to meet curriculum and career goals, to foster creative and critical thinking, and to promote positive human relations necessary in today's complex global society.

The School of Professional Studies offers the following four-year degrees:

- Bachelor of Applied Management
- Bachelor of Arts in General Studies General Social Studies
- Bachelor of Arts in General Studies Pre-Legal Studies
- Bachelor of Arts in General Studies Self-Designed Studies
- Bachelor of Business Administration
 - Majors in:
 - Accounting
 - Auctioneering
 - Entrepreneurship
 - Healthcare Management
 - Hospitality & Tourism Management
 - Human Resource Management
 - Management
- Bachelor of Computer Science
- Bachelor of Engineering
 - With a major in Biomedical Engineering Management
 - With a major in Civil Engineering Management
 - With a major in Mechanical Engineering Management
- Bachelor of Science with a major in Communication Applied Communication Track
- Bachelor of Science with a major in Communication Corporate and Organizational Communication Track
- Bachelor of Science with a major in Communication Public Relations and Journalism Track
- Bachelor of Science in Criminal Justice
- Bachelor of Science in Engineering Technology
- Bachelor of Science
 - Majors in:
 - Psychology
 - Emergency Management

The School of Professional Studies offers the following associate degrees:

- Associate in Accounting
- Associate in Business Administration
- Associate of Science in Engineering Technology

GRADUATE PROGRAMS (See Graduate Information section for full details)

The School of Professional Studies offers the following graduate degree programs through Trine University at all SPS locations.

- Master of Science with a Major In Criminal Justice
 - Public Administration concentration
 - Emergency Management concentration
- Master of Science in Leadership
 - Biomedical Regulatory Affairs concentration
 - Healthcare Systems Studies concentration
 - International Studies concentration
 - Non-Profit Organization Studies concentration
 - Strategic Foresight and Entrepreneurship concentration
 - Sustainable Business Administration concentration
 - Political Leadership & Civic Engagement concentration
 - Instructional Leadership concentration

DEGREE PROGRAM REQUIREMENTS

BACHELOR OF APPLIED MANAGEMENT

The Bachelor of Applied Management degree is designed to prepare an individual with an interest in management in a field where technical competence has already been acquired. This program is available to individuals who have completed a diploma, an associate degree, or equivalent training in a business, health, technical field, or other specialty area not offered at Trine University. The degree is designed specifically for individuals who acquired training at community colleges, technical institutes, military service schools, industry related schools, etc., and who want to continue their education in the area of management.

TECHNICAL SPECIALTY

To be accepted into the Bachelor of Applied Management degree program, a student must have a minimum of 28 semester hours in a business or technical field acquired through occupational or technical training or as an associate degree. As many as 17 additional semester hours in a technical specialty may count as electives.

In the degree program descriptions that follow, an asterisk (*) indicates that those courses satisfy the University's general education requirements.

Bachelor of Applied Management				Technical Specialty Area			
Program requirements				28 Hrs.			
Business core				Electives and/or Degree-Related			
				Prior Learning			
				General Education Requirements			
				Written Communication			
AC	203	Accounting I	(3)	*ENG 103	English Composition I		(3)
AC	213	Accounting II	(3)	*ENG 113	English Composition II		(3)
BA	343	International Business	(3)	Oral Communication			
FIN	303	Managerial Finance	(3)				
LAW	203	Business Law I	(3)	*SP 203	Effective Speaking		(3)
MGT	353	Designing Operations	(3)	Social Sciences and Humanities			
MGT	363	Organizational Behavior	(3)				
MGT	453	Strategic Management	(3)				
MK	303	Marketing	(3)				
Additional Program Requirements				6 Hrs.			
*ECO	213	Microeconomics	(3)				
*ECO	223	Macroeconomics	(3)				

*Social Science or Humanities Elective	(3)	*MA 103 Business Algebra	(3)
*Social Science or Humanities Elective	(3)	*MA 173 Applied Mathematics	(3)
Computer Literacy	(3 Hrs.)	*Science Elective	(3)
*INF 103 Information Technology Applications		*Math or Science	(1)
or		General Education Electives	(8 Hrs.)
*INF 113 Business Computer Applications	(3)	*Electives from any of the above categories	(8)
Math and Science	(10 Hrs.)		

BACHELOR OF ARTS WITH A MAJOR IN GENERAL STUDIES

Bachelor of Arts with a Major in General Studies

General Social Studies Concentration 124 Hrs.

Program requirements Required Hours

General Social Studies Core 45 Hrs.

15 Hours from 3 of the following:

ECO 300 or higher level courses

GEO 300 or higher level courses

GOV 300 or higher level courses

HIS 300 or higher level courses

PSY 300 or higher level courses

Electives 30 Hrs.

General Education Requirements 49 Hrs.

Written Communication (6 hrs)

*ENG 103 English Composition I (3)

*ENG 113 English Composition II (3)

Oral Communication (3 Hrs.)

*SP 203 Effective Speaking (3)

or

*COM 163 Interpersonal Communication (3)

Social Sciences and Humanities (24 Hrs.)

*ECO 213 Microeconomics (3)

Bachelor of Arts with a Major in General Studies

Pre-Legal Studies Concentration 124 Hrs.

Program requirements Required Hours

Pre-Legal Studies Core (49 Hrs.)

COM 213 Business Communication (3)

COM 363 Persuasion and Argumentation (3)

or

*ECO 223 Macroeconomics (3)

*GOV 113 Introduction to Government (3)

*HIS 103 American History I (3)

and

*HIS 113 American History II (3)

*PSY 113 Principles of Psychology (3)

*ENG 153 Introduction to Literature (3)

Humanities Elective (3)

Humanities Elective (3)

Computer Literacy (3 Hrs.)

*INF 103 Information Technology Applications

or

*INF 113 Business Computer Applications (3)

Math and Science (10 Hrs.)

*MA 113 College Algebra (3)

*Science Elective (3)

*Science Elective (4)

General Education Electives (3 Hrs.)

*Electives (3)

Total in Degree Program: 124 Hrs.

ENG 214 American Literature (3)

GOV 333 State and Local Government (3)

GOV 403 American Constitutional Development (3)

PHL 313 Ethics (3)

PHL 343 Logic (3)

PL 4003 Legal Capstone Experience (3)

PSY	373	Political Psychology	(3)
SOC	103	Principles of Sociology	(3)
SOC	323	The Family	(3)
LE	153	Juvenile Justice	(3)
and			
LE	263	Introduction to Criminal Law and Justice	(3)
and			
LE	273	Criminal Procedures and Evidence	(3)
or			
9 hours from BA or LAW			(9)
6 hours from LE, ENG, PSY, or COM			(6)
Electives			(26)
General Education Requirements			49 Hrs.
Written Communication			(6 hrs)
*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)
Oral Communication			(3 Hrs.)
*SP	203	Effective Speaking	(3)
or			
*COM	163	Interpersonal Communication	(3)
Social Sciences and Humanities			(24 Hrs.)
*ECO	213	Microeconomics	(3)

Bachelor of Arts with a Major in General Studies			
Self-Designed Concentration			124 Hrs.
Program requirements			Required Hours
Self-Designed Studies Core			(45 Hrs.)
15-30 hours must be taken from			
two to three different academic departments			
At the 300 level or higher			
Written Capstone Project			(3 Hrs.)
GS 4003 Senior Capstone Project			(3)
Electives			(27 Hrs.)

or			
*ECO	223	Macroeconomics	(3)
*GOV	113	Introduction to Government	(3)
*HIS	103	American History I	(3)
and			
*HIS	113	American History II	(3)
*PSY	113	Principles of Psychology	(3)
*ENG	153	Introduction to Literature	(3)
Humanities Elective			(3)
Humanities Elective			(3)

Computer Literacy (3 Hrs.)

*INF	103	Information Technology Applications	
or			
*INF	113	Business Computer Applications	(3)

Math and Science (10 Hrs.)

*MA	113	College Algebra	(3)
*Science Elective			(3)
*Science Elective			(4)

General Education Electives (3 Hrs.)

*Electives			(3)
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Total in Degree Program: 124 Hrs.

General Education Requirements			49 Hrs.
Written Communication			(6 hrs)
*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)
Oral Communication			(3 Hrs.)
*SP	203	Effective Speaking	(3)
or			
*COM	163	Interpersonal Communication	(3)
Social Sciences and Humanities			(24 Hrs.)
*ECO	213	Microeconomics	(3)
or			
*ECO	223	Macroeconomics	(3)
*GOV	113	Introduction to Government	(3)
*HIS	103	American History I	(3)
and			

*HIS	113	American History II	(3)	Math and Science	(10 Hrs.)
*PSY	113	Principles of Psychology	(3)	*MA	113 College Algebra (3)
*ENG	153	Introduction to Literature	(3)	*Science Elective	(3)
Humanities Elective			(3)	*Science Elective	(4)
Humanities Elective			(3)		
Computer Literacy				General Education Electives	(3 Hrs.)
(3 Hrs.)				*Electives	(3)
*INF	103	Information Technology Applications		Total in Degree Program:	124 Hrs.
or					
*INF	113	Business Computer Applications	(3)		

BACHELOR OF BUSINESS ADMINISTRATION

The Bachelor of Business Administration degree prepares students for responsible positions in business, industry, and public service. Majors for students in the School of Professional Studies are available in accounting, entrepreneurship, healthcare management, hospitality and tourism, human resource management, and management.

In the degree program descriptions that follow, and asterisk (*) indicates that those courses satisfy the University's general education requirements.

Bachelor of Business Administration				AC, BA, INF, FIN, LAW, MGT, MK	(3)
Accounting Major				Additional Program Requirements	15 Hrs.
120 Hrs.				Electives or Related Prior Learning	
Program Requirements				General Education Requirements	42 Hrs.
Business Core				Written Communication	(6)
33 Hrs.				*ENG	103 English Composition I (3)
AC	203	Accounting I	(3)	*ENG	113 English Composition II (3)
AC	213	Accounting II	(3)	Oral Communication	(3)
BA	343	International Business	(3)	*SP	203 Effective Speaking (3)
COM	213	Business Communication	(3)	Social Sciences and Humanities	(12)
FIN	303	Managerial Finance	(3)	*ECO	213 Microeconomics (3)
LAW	203	Business Law I	(3)	*ECO	223 Macroeconomics (3)
MGT	353	Designing Operations	(3)	*PSY	113 Principles of Psychology (3)
MGT	363	Organizational Behavior	(3)	*Humanities Elective	(3)
MGT	453	Strategic Management	(3)	Computer Literacy	(3)
MK	303	Marketing	(3)	*INF	103 Information Technology Applications
MGT	473	Capstone Business Simulation	(3)	or	
Major in Accounting				*INF	113 Business Computer Applications (3)
30 Hrs.				Math and Science	(12)
AC	303	Cost Accounting	(3)	*MA	103 Business Algebra (3)
AC	323	Intermediate Accounting I	(3)	*MA	173 Applied Mathematics (3)
AC	333	Intermediate Accounting II	(3)	*MA	253 Statistics (3)
AC	343	Intermediate Accounting III	(3)		
AC	373	Accounting Information Systems	(3)		
AC	403	Advanced Accounting	(3)		
AC	423	Income Tax	(3)		
AC	433	Corporate Income Tax	(3)		
AC	463	Auditing	(3)		
300 or 400 level elective prefixed by					

*Science Elective	(3)	Total in Degree Program:	120 Hrs.
General Education Electives	(6)		
*Electives from any of the above categories	(6)		

UNIFORM CERTIFIED PUBLIC ACCOUNTING EXAMINATION CANDIDATES

Indiana and many other states require that a first time uniform certified public accounting (CPA) Examination candidate must have at least 150 semester hours of college education, including a baccalaureate or higher degree, with an accounting concentration or its equivalent. An accounting major wishing to meet this requirement should plan an individualized program with his or her regional education center director or assigned faculty advisor. This program will encompass an additional 30 semester hours of course work in humanities, mathematics, social sciences, business, and accounting.

Bachelor of Business Administration

Auctioneering Major		120 Hours	General Education Requirements	42Hrs.
Program Requirements		Required Hours	Written Communication	(6)
Business Core		33 Hrs.		
AC	203	Accounting I	(3)	*ENG 103 English Composition I (3)
AC	213	Accounting II	(3)	*ENG 113 English Composition II (3)
BA	343	International Business	(3)	Oral Communication (3)
COM	213	Business Communication	(3)	*SP 203 Effective Speaking (3)
FIN	303	Managerial Finance	(3)	Social Sciences and Humanities (12)
LAW	203	Business Law I	(3)	*ECO 213 Microeconomics (3)
MGT	353	Designing Operations	(3)	*ECO 223 Macroeconomics (3)
MGT	363	Organizational Behavior	(3)	Humanities Elective (3)
MGT	453	Strategic Management	(3)	*PSY 113 Principles of Psychology (3)
MGT	473	Capstone Business Simulation	(3)	Computer Literacy (3)
MK	303	Marketing	(3)	
Auctioneering Core		(33 Hrs.)		
AU	103	Introduction to Auctioneering	(3)	*INF 103 Information Technology Applications or (3)
AU	203	Asset Appraising	(3)	*INF 113 Business Computer Applications (3)
AU	213	Auctioneering Specialties	(3)	Math and Science (12)
AU	303	Real Estate of Auction	(3)	*MA 103 Business Algebra (3)
AU	313	Auction Arena Management	(3)	*MA 173 Applied Mathematics (3)
AU	403	Externship	(3)	*MA 253 Statistics (3)
BA	323	Real Estate	(3)	*Science Elective (3)
BA	423	Entrepreneurship	(3)	General Education Electives (6)
LAW	313	Auction Law	(3)	
LAW	323	Bankruptcy	(3)	
MK	473	E-Marketing	(3)	Total In Degree Program: 120 Hrs.
Additional Program Requirements		12 Hrs.		
Electives or Related Prior Learning		(12)		

Bachelor of Business Administration
Entrepreneurship Major **124 Hours**

Program Requirements **Required Hours**
Business Core **33 Hrs.**

AC	203	Accounting I	(3)
AC	213	Accounting II	(3)
BA	343	International Business	(3)
COM	213	Business Communication	(3)
FIN	303	Managerial Finance	(3)
LAW	203	Business Law I	(3)
MGT	353	Designing Operations	(3)
MGT	363	Organizational Behavior	(3)
MGT	453	Strategic Management	(3)
MGT	473	Capstone Business Simulation	(3)
MK	303	Marketing	(3)

Major Requirements **33 Hrs.**

Entrepreneurship **(27 Hrs.)**

AC	353	Tax and Legal Issues for Small Business	(3)
ENT	303	Entrepreneurship Leadership	(3)
ENT	323	Engineering Concepts	(3)
ENT	413	Creativity – Product/Service Development	(3)
ENT	423	Entrepreneurship Venture Planning	(3)
ENT	463	Internship	(3)
FIN	363	Venture Finance	(3)
MGT	333	Supervision	(3)
MGT	463	Marketing Research	(3)

Business Electives **(6 Hrs.)**

Choose two of the following

AC	303	Cost Accounting	(3)
AC	423	Income Tax	(3)
FIN	323	Money and Banking	(3)
FIN	353	Personal Finance	(3)
MGT	313	Human Resource Management	(3)
MGT	443	Managing Operations	(3)
MK	313	Retail Management	(3)

Bachelor of Business Administration
Health Care Management Major **120 Hours**

MK	333	Buyer Behavior	(3)
MK	423	Personal Selling	(3)

Additional Program Requirements **16 Hrs.**

BA	311x	Internship	
BA	123	Business Concepts	(3)
BA	301	Professional Development	(1)
Electives			(7-11)

General Education Requirements **42 Hrs.**

Written Communication **(6)**

*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)

Oral Communication **(3)**

*SP	203	Effective Speaking	(3)
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Social Sciences and Humanities **(12)**

*ECO	213	Microeconomics	(3)
*ECO	223	Macroeconomics	(3)
*PSY	113	Principles of Psychology	(3)
*Humanities Elective			(3)

Computer Literacy **(6)**

*INF	103	Information Technology Applications	
or			
*INF	113	Business Computer Applications	(3)
INF	233	Advanced Spreadsheet for Business	(3)

Math and Science **(12)**

*MA	103	Business Algebra	(3)
*MA	173	Applied Mathematics	(3)
*MA	253	Statistics	(3)
*Science Elective			(3)

General Education Electives **(3)**

*Electives from any of the above categories			(3)
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Total In Degree Program: **124 Hrs.**

Program Requirements **Required Hours**
Business Core **33 Hrs.**

AC	203	Accounting I	(3)	General Education Requirements	42 Hrs.
AC	213	Accounting II	(3)	Written Communication	(6)
BA	343	International Business	(3)	*ENG 103 English Composition I	(3)
COM	213	Business Communication	(3)	*ENG 113 English Composition II	(3)
FIN	303	Managerial Finance	(3)	Oral Communication	(3)
LAW	203	Business Law I	(3)	*SP 203 Effective Speaking	(3)
MGT	353	Designing Operations	(3)	Social Sciences and Humanities	(12)
MGT	363	Organizational Behavior	(3)	*ECO 213 Microeconomics	(3)
MGT	453	Strategic Management	(3)	*ECO 223 Macroeconomics	(3)
MGT	473	Capstone Business Simulation	(3)	*PSY 113 Principles of Psychology	(3)
MK	303	Marketing	(3)	*Humanities Elective	(3)
Major In Health Care Management			36 Hrs.	Computer Literacy	(3)
BA	403	Business & Public Policy	(3)	*INF 103 Information Technology Applications	
HC	333	Management Techniques & Principles	(3)	or	
HC	413	Health Care Accounting	(3)	*INF 113 Business Computer Applications	(3)
HC	423	Health Care Finance	(3)	Math and Science	(12)
HC	443	Health Care Delivery Systems	(3)	*MA 103 Business Algebra	(3)
HC	483	Program & Facilities Management	(3)	*MA 173 Applied Mathematics	(3)
HR	403	Project Management	(3)	*MA 253 Statistics	(3)
MGT	313	Human Resource Management	(3)	*Science Elective	(3)
MGT	323	Leadership	(3)	General Education Electives	(6)
MGT	413	Management of Quality	(3)	*Electives from any of the above categories	(6)
MGT	443	Managing Operations	(3)	Total In Degree Program:	120 Hrs.
BA	3113	Business Internship	(3)		
Additional Program Requirements			9 Hrs.		
Electives or Related Prior Learning					

**Bachelor of Business Administration
Hospitality & Tourism Management Major**
124 Hrs.

Program Requirements			Required Hours
Business Core			33 Hrs.
AC	203	Accounting I	(3)
AC	213	Accounting II	(3)
BA	343	International Business	(3)
COM	213	Business Communication	(3)
FIN	303	Managerial Finance	(3)
LAW	203	Business Law I	(3)
MGT	353	Designing Operations	(3)

MGT	363	Organizational Behavior	(3)
MGT	453	Strategic Management	(3)
MGT	473	Capstone Business Simulation	(3)
MK	303	Marketing	(3)
Hospitality & Tourism			33 Hrs.
HOS	103	Current Trends in Tourism	(3)
HOS	203	Lodging Management	(3)
HOS	213	Sophomore Internship in Hospitality Management	(3)
HOS	303	Hospitality and Tourism Marketing	(3)
HOS	313	Catering	(3)
HOS	322	Meeting and Event Planning	(2)

HOS	402	Beverage Management	(2)
HOS	404	Quality Food Preparation and Lab	(4)
HOS	413	Casino, Spa, and Resort Management	(3)
HOS	423	Sanitation and Health in the Food Service Lodging, and Tourism Industry	(3)
HOS	474	Senior Internship in Hospitality Management	(4)

Additional Program Requirements 16 Hrs.

BA	123	Business Concepts	(3)
INF	263	Data Base Concepts and Applications	(3)
HPE	131	First Aid	(1)
HPE	253	Risk Management	(3)
HPE	273	Nutrition	(3)
MGT	313	Human Resource Management	(3)

General Education Requirements 42 Hrs.

Written Communication (6)

*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)

Oral Communication (3)

**Bachelor of Business Administration
Human Resource Management Major 120 Hrs.**

**Program Requirements Required Hours
Business Core 33 Hrs.**

AC	203	Accounting I	(3)
AC	213	Accounting II	(3)
BA	343	International Business	(3)
COM	213	Business Communication	(3)
FIN	303	Managerial Finance	(3)
LAW	203	Business Law I	(3)
MGT	353	Designing Operations	(3)
MGT	363	Organizational Behavior	(3)
MGT	453	Strategic Management	(3)
MK	303	Marketing	(3)
MGT	473	Capstone Business Simulation	(3)

Major in Human Resource Management 30 Hrs.

FIN	403	Investments	(3)
HR	303	Compensation and Benefits	(3)
HR	313	Training and Development	(3)
HR	323	Safety and Health Management	(3)
HR	403	Project Management	(3)

*COM	163	Interpersonal Communication	(3)
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Social Sciences and Humanities (12)

*ECO	213	Microeconomics	(3)
*ECO	223	Macroeconomics	(3)
*PSY	113	Principles of Psychology	(3)
*Humanities Elective			(3)

Computer Literacy (3)

*INF	103	Information Technology Applications or	
*INF	113	Business Computer Applications	(3)

Math and Science (12)

*MA	103	Business Algebra	(3)
*MA	173	Applied Mathematics	(3)
*MA	253	Statistics	(3)
*Science Elective			(3)

General Education Electives (6)

Total In Degree Program: 124 Hrs.

LAW	403	Employment Law	(3)
MGT	313	Human Resources Management	(3)
MGT	323	Leadership	(3)
PSY	363	Counseling	(3)
		300 or 400 level Business or Management Elective	(3)

Additional Program Requirements 15 Hrs.
Electives or related prior learning

General Education Requirements 42 Hrs.

Written Communication (6)

*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)

Oral Communication (3)

*SP	203	Effective Speaking	(3)
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Social Sciences and Humanities (12)

*PSY	113	Principles of Psychology	(3)
*Humanities Elective			(3)
*ECO	213	Microeconomics	(3)
*ECO	223	Macroeconomics	(3)

Computer Literacy (3)

*INF 103 Information Technology Applications
or

*INF 113 Business Computer Applications (3)

Math and Science (12)

*MA 103 Business Algebra (3)

*MA 173 Applied Mathematics (3)

*MA 253 Statistics (3)

*Science Elective (3)

General Education Electives (6)

*Electives from any of the above categories (6)

Total in Degree Program: 120 Hrs.

Bachelor of Business Administration**Management Major 120 Hrs.****Program Requirements Required Hours****Business Core 33 Hrs.**

AC 203 Accounting I (3)

AC 213 Accounting II (3)

BA 343 International Business (3)

COM 213 Business Communication (3)

FIN 303 Managerial Finance (3)

LAW 203 Business Law I (3)

MGT 353 Designing Operations (3)

MGT 363 Organizational Behavior (3)

MGT 453 Strategic Management (3)

MK 303 Marketing (3)

MGT 473 Capstone Business Simulation (3)

Major In Management 30 Hrs.

BA 403 Business and Public Policy (3)

BA 423 Entrepreneurship (3)

LAW 403 Employment Law (3)

MGT 313 Human Resource Management (3)

MGT 323 Leadership (3)

MGT 413 Management of Quality (3)

Management Elective (3)

Management Elective (3)

Business Administration/Informatics Elective (3)

Business Administration/Informatics Elective (3)

Additional Program Requirements 15 Hrs.

Electives or related prior learning

General Education Requirements 42 Hrs.**Written Communication (6)**

*ENG 103 English Composition I (3)

*ENG 113 English Composition II (3)

Oral Communication (3)

*SP 203 Effective Speaking (3)

Social Sciences and Humanities (12)

*PSY 113 Principles of Psychology (3)

*Humanities Elective (3)

*ECO 213 Microeconomics (3)

*ECO 223 Macroeconomics (3)

Computer Literacy (3)

*INF 103 Information Technology Applications

or

*INF 113 Business Computer Applications (3)

Math and Science (12)

*MA 103 Business Algebra (3)

*MA 173 Applied Mathematics (3)

*MA 253 Statistics (3)

*Science Elective (3)

General Education Electives (6)

*Electives from any of the above categories (6)

Total in Degree Program: 120 Hrs.

BACHELOR OF COMPUTER SCIENCE

Bachelor of Computer Science 128 Hrs.

Program requirements Required Hours

Computer Science Core 42 Hrs.

CS	1123	C++ & Object Oriented Programming	(3)
CS	1303	Introduction to the World Wide Web	(3)
CS	2103	Algorithm Design & Analysis	(3)
CS	2213	Architecture and Operating Systems	(3)
CS	2503	Software Engineering & User Interfaces	(3)
CS	2613	AI & Information	(3)
CS	3223	Network Architecture	(3)
CS	3303	Net-Centric Computing	(3)
ECE	261	Digital Systems Lab	(1)
ECE	263	Digital Systems	(3)
ECE	271	Microcontrollers Lab	(1)
ECE	273	Microcontrollers	(3)
ECE	393	Software Analysis & Design	(3)
CS	4903	Capstone Project	(3)

General Engineering 2 Hrs.

GE	101	Introduction to Engineering	(1)
GE	401	Professional Practice	(1)

Computer Science Advance Technical Elective 3 Hrs.

CS	4033	Special Topics	
or			
CS	4023	Compiler Construction	
or			
CS	4013	Computer Graphics	

Computer Science Other Program Electives 11 Hrs.

Choose with the direction of your advisor. Especially encouraged are the Computer Science Technical Electives above, ECE 371/373 Embedded Systems, advanced mathematics and Entrepreneurship (ENT) Course

General Education Requirements 74 Hrs.

Written Communication 6 hrs

*ENG	103	English Composition I	(3)
*ENG	133	Technical Communication	(3)
or			
*ENG	113	English Composition II	(3)

Oral Communication 3 Hrs.

*SP	203	Effective Speaking	(3)
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Social Sciences and Humanities 12 Hrs.

(University General Education restrictions apply) (12)

Computer Science Program Humanities & Social Sciences 18 Hrs.

Additional courses as listed in the table of Social Science and Humanities under General Education Requirements for All Bachelor's Degrees

Computer Literacy 3 Hrs.

*CS	1113	Object-Oriented Java Programs	(3)
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Math and Science 32 Hrs.

*MA	134	Calculus I	(3)
*MA	164	Calculus II	(3)
MA	213	Calculus III	(3)
MA	323	Operations Research	(3)
MA	393	Probability & Statistics	(3)
MA	473	Discrete Mathematics	(3)
Lab Science Electives			(12)

Total in Degree Program: 128 Hrs.

BACHELOR OF ENGINEERING

With a major in Biomedical Engineering Management

Program requirements Required Hours

Engineering Science Core 23 Hrs.

ES	213	Statics	(3)
ES	223	Dynamics	(3)
ES	233	Engineering Materials	(3)
ES	243	Solid Mechanics	(3)
ES	313	Thermodynamics	(3)
ES	323	Fluid Mechanics	(3)
ES	253	Electrical Science	(3)

ES	382	Engineering Economics	(2)	General Education Requirements	42 Hrs.
Biomedical Engineering Management				Written Communication	6 hrs
BE	313	Bio-medical Materials	(3)	*ENG 103 English Composition I	(3)
BE	323	Bio-medical Kinematics	(3)	*ENG 133 Technical Communication	(3)
BE	333	Bio-medical Electricity	(3)	Oral Communication	3 Hrs.
BE	403	Bio-medical Imaging & Measurement Systems	(3)	*SP 203 Effective Speaking	(3)
BE	423	Bio-medical Human Mechanics	(3)	Social Sciences and Humanities	12 Hrs.
BE	463	Bio-medical Design Fundamentals	(3)	*ECO 213 Microeconomics	(3)
GE	403	Engineering Project	(3)	*ECO 223 Macroeconomics	(3)
Management Core				*Social Science Elective	(3)
LAW	203	Business Law I	(3)	*Humanities Elective	(3)
MGT	323	Leadership	(3)	Computer Literacy	3 Hrs.
MGT	353	Designing Operations	(3)	*INF 103 Information Technology Applications	(3)
Degree Related Electives				Math & Science Core	20 Hrs.
Additional Math & Science				*MA 134 Calculus I	(4)
*PH	224	University Physics I	(4)	*MA 164 Calculus II	(4)
*PH	234	University Physics II	(4)	*BIO 104 General Biology	(4)
MA	393	Probability & Statistics	(3)	Additional Requirements	6 Hrs.
Math Elective (200 Level or Above)			(3)	MA 213 Calculus III	(3)
				MA 233 Differential Equations	(3)
				Total in Degree Program:	127 Hrs.

BACHELOR OF ENGINEERING

With a major in Civil Engineering Management

Program requirements			Required Hours		
Engineering Science Core			23 Hrs.	CE 3201 Civil Engineering Materials Lab	(1)
ES	213	Statics	(3)	Management Core	18 Hrs.
ES	223	Dynamics	(3)	LAW 203 Business Law I	(3)
ES	233	Engineering Materials	(3)	MGT 323 Leadership	(3)
ES	243	Solid Mechanics	(3)	MGT 353 Designing Operations	(3)
ES	313	Thermodynamics	(3)	BA/MGT Electives	(9)
ES	323	Fluid Mechanics	(3)	Degree Related Electives	11 Hrs.
ES	253	Electrical Science	(3)	General Education Requirements	42 Hrs.
ES	382	Engineering Economics	(2)	Written Communication	6 hrs
Civil Engineering Stem			19 Hrs.	*ENG 103 English Composition I	(3)
EGR	153	Civil Engineering Graphics	(3)	*ENG 133 Technical Communication	(3)
CE	3203	Civil Engineering Materials	(3)	Oral Communication	3 Hrs.
CE	3503	Structural Analysis	(3)	*SP 203 Effective Speaking	(3)
CE	3513	Structural Steel Design	(3)	Social Sciences and Humanities	12 Hrs.
CE	3533	Reinforced Concrete Design	(3)	*ECO 213 Microeconomics	(3)
GE	403	Engineering Project	(3)	*ECO 223 Macroeconomics	(3)
				*Social Science Elective	(3)

*Humanities Elective	(3)
Computer Literacy	3 Hrs.
*INF 103 Information Technology Applications	(3)
Math & Science Core	12 Hrs.
*MA 134 Calculus I	(4)
*MA 164 Calculus II	(4)

BACHELOR OF ENGINEERING

With a major in Mechanical Engineering Management

Program requirements	Required Hours
Engineering Science Core	23 Hrs.
ES 213 Statics	(3)
ES 223 Dynamics	(3)
ES 233 Engineering Materials	(3)
ES 243 Solid Mechanics	(3)
ES 313 Thermodynamics	(3)
ES 323 Fluid Mechanics	(3)
ES 253 Electrical Science	(3)
ES 382 Engineering Economics	(2)
Mechanical Engineering Stem	18 Hrs.
EGR 143 Engineering Graphics	(3)
MAE 303 Mechanics of Machinery	(3)
MAE 343 Manufacturing Process and Equipment	(3)
MAE 353 Computer-Aided Machine Design	(3)
MAE 463 Measurement Laboratory	(3)
GE 403 Engineering Project	(3)
Management Core	18 Hrs.
LAW 203 Business Law I	(3)
MGT 323 Leadership	(3)
MGT 353 Designing Operations	(3)
BA/MGT Electives	(9)

Degree Related Electives **11 Hrs.**

BACHELOR OF SCIENCE IN COMMUNICATION

Bachelor of Science in Communication, Applied Communication Track **124 Hrs.**

Program requirements	Required Hours
Communication Subject Matter Concentration	(21 Hrs.)

*CH 104 General Chemistry I	(4)
Additional Requirements	6 Hrs.

MA 213 Calculus III	(3)
MA 233 Differential Equations	(3)
Total in Degree Program:	127 Hrs.

Additional Math & Science	14 Hrs.
*PH 224 University Physics I	(4)
PH 234 University Physics II	(4)
MA 393 Probability & Statistics	(3)
Math Elective (200 Level or Above)	(3)

General Education Requirements	42 Hrs.
Written Communication	6 hrs
*ENG 103 English Composition I	(3)
*ENG 133 Technical Communication	(3)
Oral Communication	3 Hrs.
*SP 203 Effective Speaking	(3)
Social Sciences and Humanities	12 Hrs.
*ECO 213 Microeconomics	(3)
*ECO 223 Macroeconomics	(3)
*Social Science Elective	(3)
*Humanities Elective	(3)

Computer Literacy	3 Hrs.
*INF 103 Information Technology Applications	(3)
Math & Science Core	20 Hrs.
*MA 134 Calculus I	(4)
*MA 164 Calculus II	(4)
*CH 104 General Chemistry I	(4)
Additional Requirements	6 Hrs.
MA 213 Calculus III	(3)
MA 233 Differential Equations	(3)

Total in Degree Program: **127 Hrs.**

COM 123 Introduction to Electronic Media	(3)
COM 153 Principles of Public Relations	(3)
COM 163 Interpersonal Communication	(3)
COM 213 Business Communication	(3)
COM 263 Theories & Practices in Communication	(3)
COM 363 Persuasion & Argumentation	(3)

Three hours in Communication Practica
(from COM 101, COM 301 and/or COM 422 (3)

Applied Communication Track (12 Hrs.)

COM 183 Writing for Public Media (3)

COM 353 Public Relations Writing &
Production (3)

Choose one of the following:

COM 413 Corporate & Organizational
Communication (3)

or

COM 453 Public Relations Planning &
Campaigns (3)

Choose three hours from:

COM 4281 Senior Communication Project
Proposals (1)

and

COM 4292 Senior Communication Project (2)

or

COM 4013 Senior Capstone Internship
in Communication (3)

Communication Electives (13 Hrs.)

Choose 13 hours of Communication Related Electives

Electives (36 Hrs.)

General Education Requirements 42 Hrs.

Written Communication (6 hrs.)

*ENG 103 English Composition I (3)

*ENG 113 English Composition II (3)

Oral Communication (3 Hrs.)

*SP 203 Effective Speaking (3)

**Bachelor of Science in Communication,
Corporate and Organizational Communication
Track 124 Hrs.**

Program requirements Required Hours

Communication Subject Matter Concentration (21 Hrs.)

COM 123 Introduction to Electronic Media (3)

COM 153 Principles of Public Relations (3)

COM 163 Interpersonal Communication (3)

COM 213 Business Communication (3)

COM 263 Theories & Practices in
Communication (3)

Social Sciences and Humanities (14 Hrs.)

*ECO 213 Microeconomics (3)

or

*ECO 223 Macroeconomics (3)

or

*GOV 113 Introduction to Government (3)

COM 203 Media & Communication (3)

COM 233 Intercultural Communication (3)

FLM 202 Film Appreciation (3)

*PSY 113 Principles of Psychology (3)

Computer Literacy (3 Hrs.)

*INF 103 Information Technology Applications

or

*INF 113 Business Computer Applications (3)

Math and Science (13 Hrs.)

*MA 103 Business Algebra

or

*MA 113 College Algebra

or

*MA 153 Elements of Math (3)

*MA 253 Statistics (3)

*Science Elective (4)

Math or Science Elective (3)

General Education Electives (3 Hrs.)

*Electives (3)

Total in Degree Program: 124 Hrs.

COM 363 Persuasion & Argumentation (3)

Three hours in Communication Practica
(from COM 101, COM 301 and/or COM 422 (3)

Corporate & Organizational Communication Track (25 Hrs.)

COM 353 Public Relations Writing & Production (3)

COM 413 Corporate & Organizational
Communication (3)

COM 453 Public Relations Planning & Campaigns (3)

MGT 313 Human Resource Management (3)

MGT 363 Organizational Behavior (3)

Choose three hours from:

COM	4281	Senior Communication Project Proposals	(3)
and			
COM	4292	Senior Communication Project	(3)
or			
COM	4013	Senior Capstone Internship in Communication	(3)

Choose seven hours from the following:

COM	183	Writing for the Media	(3)
COM	301	Campus Media Internship	(1)
COM	323	Business of Electronic Media	(3)
COM	373	Topics in Communication	(3)
COM	422	Campus Media Management	(2)
COM	400x	Elective Internship	
COM	410x	Independent Studies in Communication	
INF	273	Video Editing I	(3)
ENT	303	Entrepreneurial Leadership	(3)
ENT	313	Business Concepts	(3)
MGT	323	Leadership	(3)
MGT	343	Human Resource Development	(3)
PSY	343	Social Psychology	(3)

Electives (36 Hrs.)

General Education Requirements 42 Hrs.

Written Communication (6 hrs.)

*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)

Oral Communication (3 Hrs.)

*SP	203	Effective Speaking	(3)
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Social Sciences and Humanities (14 Hrs.)

*ECO	213	Microeconomics	(3)
or			
*ECO	223	Macroeconomics	(3)
or			
*GOV	113	Introduction to Government	(3)
COM	203	Media & Communication	(3)
COM	233	Intercultural Communication	(3)
FLM	202	Film Appreciation	(3)
*PSY	113	Principles of Psychology	(3)

Computer Literacy (3 Hrs.)

*INF	103	Information Technology Applications	
or			
*INF	113	Business Computer Applications	(3)

Math and Science (13 Hrs.)

*MA	103	Business Algebra	
or			
*MA	113	College Algebra	
or			
*MA	153	Elements of Math	(3)
*MA	253	Statistics	(3)
*Science Elective			(4)
Math or Science Elective			(3)

General Education Electives (3 Hrs.)

*Electives			(3)
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Total in Degree Program: 124 Hrs.

**Bachelor of Science in Communication,
Public Relations and Journalism Track 124 Hrs.**

Program requirements Required Hours

Communication Subject Matter Concentration (21 Hrs.)

COM	123	Introduction to Electronic Media	(3)
COM	153	Principles of Public Relations	(3)
COM	163	Interpersonal Communication	(3)
COM	213	Business Communication	(3)
COM	263	Theories & Practices in Communication	(3)
COM	363	Persuasion & Argumentation	(3)
Three hours in Communication Practica (from COM 101, COM 301 and/or COM 422			(3)

Public Relations & Journalism Track (25 Hrs.)

COM	183	Writing for the Media	(3)
COM	253	Sports Media & Promotion	(3)
COM	353	Public Relations Writing & Production	(3)
COM	413	Corporate & Organizational Communication	(3)
COM	453	Public Relations Planning & Campaigns	(3)

Choose three hours from:

COM	4281	Senior Communication Project Proposals	(1)
and			
COM	4292	Senior Communication Project	(2)
or			
COM	4013	Senior Capstone Internship in Communication	(3)

Choose seven hours from the following:

COM	283	Sports Writing	(3)
COM	301	Campus Media Internship	(1)
COM	323	Business of Electronic Media	(3)
COM	373	Topics in Communication	(3)
COM	422	Campus Media Management	(2)
COM	400x	Internship in Communication	
COM	410x	Independent Studies in Communication	
INF	273	Video Editing I	(3)
ENG	463	Creative Writing	(3)
ENT	313	Business Concepts	(3)
HPE	313	Principles of Sport & Recreation Management	(3)
MK	303	Marketing	(3)
MK	323	Integrated Marketing Communication	(3)

MK	433	Personal Selling	(3)
MK	463	Marketing Research	(3)
PSY	343	Social Psychology	(3)

Electives (36 Hrs.)

General Education Requirements 42 Hrs.

Written Communication (6 hrs.)

*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)

Oral Communication (3 Hrs.)

*SP	203	Effective Speaking	(3)
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Social Sciences and Humanities (14 Hrs.)

*ECO	213	Microeconomics	(3)
or			
*ECO	223	Macroeconomics	(3)
or			
*GOV	113	Introduction to Government	(3)
COM	203	Media & Communication	(3)
COM	233	Intercultural Communication	(3)
FLM	202	Film Appreciation	(3)
*PSY	113	Principles of Psychology	(3)

Computer Literacy (3 Hrs.)

*INF	103	Information Technology Applications	
or			
*INF	113	Business Computer Applications	(3)

Math and Science (13 Hrs.)

*MA	103	Business Algebra	
or			
*MA	113	College Algebra	
or			
*MA	153	Elements of Math	(3)
*MA	253	Statistics	(3)
*Science Elective			(4)
Math or Science Elective			(3)

General Education Electives (3 Hrs.)

*Electives			(3)
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Total in Degree Program: 124 Hrs.

BACHELOR OF SCIENCE IN CRIMINAL JUSTICE

The Bachelor of Science in criminal justice degree is ideal for the law enforcement professional. Successfully completed police academy and other law enforcement training are applicable toward this degree. The major provides a strong theoretical background along with broad-based learning through general education, electives, and degree-related prior learning.

In the degree program descriptions that follow, an asterisk (*) indicates that those courses satisfy the University's general education requirements.

Bachelor of Science in Criminal Justice				124 Hrs.	PSY 423	Counseling Theories & Practices	(3)
Program Requirements				Required Hours	Emergency Response Module		
Major Area				39 Hrs.	EM 103	Introduction to Emergency Management	(3)
GOV	403	American Constitutional Development	(3)		EM 223	Risk Assessment & Vulnerability	(3)
LE	153	Juvenile Justice	(3)		EM 383	Preparedness & Response Operations	(3)
LE	253	Probation, Parole & Community Corrections	(3)		EM 403	Managing the Consequences of Terrorism	(3)
LE	263	Introduction to Criminal Law & Justice	(3)			Emergency Management Elective	(3)
LE	273	Criminal Procedures and Evidence	(3)			Emergency Management Elective	(3)
LE	343	Criminalistics & Crime Scene Investigations I	(3)		Academy Training / Prior Learning Module		
LE	353	Criminalistics & Crime Scene Investigations II	(3)		This module can only be filled by documented Academy (Fire, Police, EMT) or Military Training and/or Prior Learning.		
LE	363	Institutional Corrections & Correctional Law	(3)		Management / Leadership		
LE	423	Criminal Justice Agency Administration	(3)		COM 213	Business Communication	(3)
LE	433	Criminal Justice Capstone Demonstration	(3)		MGT 313	Human Resource Management	(3)
LE	453	Topics in Criminal Justice	(3)		MGT 323	Leadership	(3)
PSY	323	Abnormal Psychology	(3)		MGT 333	Supervision	(3)
PSY	383	Forensic Psychology	(3)		MGT 363	Organizational Behavior	(3)
Degree Related Electives or Prior Learning Credit				19-20 Hrs.	Choose one course from below		
Concentration Option				18 Hrs.	PHL 313	Ethics	(3)
Choose from one of the 18 credit hour options listed below					FIN 333	Public Finances	(3)
Psychology Module					General Education Requirements		
PSY	333	Psychology of Personality	(3)		47-48 HRS.		
PSY	343	Social Psychology	(3)		Written Communication		
PSY	353	Child & Adolescent Psychology	(3)		*ENG 103	English Composition I	(3)
PSY	363	Counseling	(3)		*ENG 113	English Composition II	(3)
PSY	413	Psychology of Addiction	(3)		Oral Communication		
					*SP 203	Effective Speaking	
					or		
					*COM 163	Interpersonal Communication	(3)

Social Science and Humanities

*ECO	213	Microeconomics	
or			
*ECO	223	Macroeconomics	(3)
*GOV	113	Introduction to Government	(3)
*HIS	103	American History I	
and			
*HIS	113	American History II	(6)

One Humanities course from list below (2-3)

*ART	252	Art Appreciation	
*COM	233	Intercultural Communication	
*MUS	273	Music & Culture	
*PHL	203	Introduction to Philosophy	
*SPN	103	Spanish Conversation I	
*SPN	113	Spanish Reading & Writing I	
*SPN	123	Spanish II	
and			
*SOC	103	Introduction to Sociology	(3)

*PSY	113	Principles of Psychology	(3)
*Humanities Electives			(3)

Mathematics and Science

*MA	103	Business Algebra	
or			
*MA	113	College Algebra	
or			
*MA	153	Elements of Math	(3)
*BIO	103	General Biology (no lab)	(3)
*Science Elective			(3)
*Mathematics or Science Elective			(3)

Computer Literacy

*INF	103	Information Technology Applications	
or			
*INF	113	Business Computer Applications	(3)

Total in Degree Program: 124 Hrs.

BACHELOR OF SCIENCE WITH A MAJOR IN EMERGENCY MANAGEMENT

The Bachelor of Science with a major in emergency management degree is a career-oriented degree that prepares students in the areas of mitigation, preparedness, response and recovery of intentional and/or natural disasters or emergencies.

This degree enables a graduate to:

- Acquire the skills necessary for developing a career of leadership in emergency management professions
- Acquire a wide-range of knowledge within emergency and disaster situations
- Acquire a depth of study through the general education components

Bachelor Of Science**Emergency Management Major 124 Hrs.**

EM	423	Social Dimensions of Disaster	(3)
EM	453	Emergency Management Capstone	(3)

Program Requirements**Required Hours****Module 1****18 Hrs.****Major Area****30 Hrs.****Module 2****18 Hrs.**

EAS	253	Weather and Climate	(3)
EM	103	Introduction to Emergency Management	(3)
EM	113	Introduction to Hazard Mitigation	(3)
EM	223	Risk Assessment & Vulnerability	(3)
EM	253	Disaster Relief & Recovery	(3)
EM	313	Hazardous Materials Operations	(3)
EM	383	Preparedness & Response Operations	(3)
EM	403	Managing Consequences of Terrorism	(3)

Choose any two modules listed

Business Continuity Module

AC	203	Accounting I	(3)
AC	213	Accounting II	(3)
FIN	303	Managerial Finance	(3)
LAW	403	Employment Law	(3)
MGT	323	Leadership	(3)
MGT	363	Organizational Behavior	(3)

Emergency Response Module

EM	303	Natural & Man-Made Disasters	(3)
EM	323	Hazardous Materials & WMD	(3)
EM	333	World Terrorism	(3)
EM	343	Incident Management	(3)
EM	363	Public Information & Media	(3)
HR	323	Safety & Health Management	(3)

Academy Training/Prior Learning Module 18 Hrs.

This module can only be filled by documented academy (fire, police, EMT) or military training and/or prior learning, includes Ivy Tech and other certified fire training

General Education and Additional**Program Requirements 58 Hrs.****Written Communications**

*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)

Oral Communication

*SP	203	Effective Speaking	
or			
*COM	163	Interpersonal Communication	(3)

Social Science and Humanities

*ECO	213	Microeconomics	
or			
*ECO	223	Macroeconomics	(3)
*GOV	113	Introduction to Government	(3)
*HIS	103	American History I	

**BACHELOR OF SCIENCE IN
ENGINEERING TECHNOLOGY****Bachelor Of Science Engineering
Technology****127 Hrs.****Program Requirements Required Hours****Engineering Fundamentals Core 48 Hrs.**

ETD	103	Basic Technical Drawing	(3)
ETD	113	Geometric Dimensioning & Tolerancing	(3)
ETD	123	Manufacturing Materials & Processes	(3)
ETD	163	Environmental Health & Safety	(3)
ETD	173	Computer Aided 3-D Modeling	(3)
ETD	203	Basic Mechanisms	(3)

and

*HIS	113	American History II	
or			
*HIS	203	World Civilization I	
and			
*HIS	213	World Civilization II	(6)
*SOC	103	Introduction to Sociology	(3)
*Humanities Electives			(6)
Elective			(3)

Mathematics and Science

*MA	103	Business Algebra	
or			
*MA	113	College Algebra	(3)
*MA	253	Statistics	(3)
*BIO	103	General Biology (no lab)	(3)
*Mathematics or Science Elective			(3)

Computer Literacy

*INF	103	Information Technology Applications	
or			
*INF	113	Business Computer Applications	(3)

Additional Requirements

*PSY	113	Principles of Psychology	(3)
*Electives			(7)

Total in Degree Program: 124 Hrs.

ETD	233	Engineering & Manufacturing Systems	(3)
ETD	243	Statics & Strength of Materials	(3)
ETD	253	Dimensional Metrology	(3)
ETD	263	Design, Analysis, and Prototyping	(3)
ETD	273	Electrical Fundamentals	(3)
ETD	323	Product Design & Development	(3)
ETD	363	Elements of Machines	(3)
ETD	423	Senior Design Project	(3)
ETD	433	Computer Numerical Control Principles	(3)
EGR	453	Advanced Parametric Design	(3)

Management Core 12 Hrs.

MGT	333	Supervision	(3)
MGT	353	Designing Operations	(3)

MGT	363	Organizational Behavior	(3)
MGT	413	Management of Quality	(3)

Degree Related Electives 15 Hrs.

General Education 52 Hrs.

Written Communication 6 Hrs.

*ENG	103	English Composition I	(3)
*ENG	133	Technical Communication	(3)

Oral Communication 3 Hrs.

*SP	203	Effective Speaking	(3)
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Social Sciences and Humanities 15 Hrs.

*ECO	213	Microeconomics	(3)
*ECO	223	Macroeconomics	(3)
*PSY	113	Principles of Psychology	(3)
		Social Science Elective	(3)
		Humanities Elective	(3)

BACHELOR OF SCIENCE PSYCHOLOGY MAJOR

**Bachelor Of Science
Psychology Major 124 Hrs.**

**Program Requirements Required Hours
Psychology Core 42 Hrs.**

PSY	113	Principles of Psychology	(3)
PSY	303	Research Methods in Psychology	(3)
PSY	473	Psychology Capstone Demonstration	(3)

Choose two: (6 Hrs.)

PSY	323	Abnormal Psychology	(3)
PSY	403	Human Sexuality	(3)
PSY	413	Psychology of Addiction	(3)
PSY	423	Counseling Theories and Practices	(3)

Choose two: (6 Hrs.)

PSY	333	Psychology of Personality	(3)
PSY	343	Social Psychology	(3)
PSY	373	Political Psychology	(3)
PSY	313	Topics in Psychology	(3)

Choose one: (3 Hrs.)

PSY	353	Child and Adolescent Psychology	(3)
SOC	323	The Family	(3)

Choose 18 hours from any 300 level or higher psychology or sociology course not previously chosen

Computer Literacy 3 Hrs.

*INF	103	Information Technology Applications	
		or	
*INF	113	Business Computer Applications	(3)

Mathematics Core 13 Hrs.

*MA	113	College Algebra	(3)
*MA	123	Trigonometry	(3)
*MA	134	Calculus I	(4)
*MA	253	Statistics	(3)

Science Core 12 Hrs.

*CH	144	Chemistry—Ideas and Applications	(4)
*PH	154	College Physics I	(4)
*PH	164	College Physics II	(4)

Total in Degree Program 127 Hrs.

Psychology or Sociology Electives 300 or 400 Level	(3)
Psychology or Sociology Electives 300 or 400 Level	(3)
Psychology or Sociology Electives 300 or 400 Level	(3)
Psychology or Sociology Electives 300 or 400 Level	(3)
Psychology or Sociology Electives 300 or 400 Level	(3)
Psychology or Sociology Electives 300 or 400 Level	(3)

Electives 31 Hrs.

General Education Requirements 51 Hrs.

Written Communication 6 Hrs.

*ENG	103	English Composition I	(3)
*ENG	113	English Composition II	(3)

Oral Communication 3 Hrs.

*SP	203	Effective Speaking	
		or	
*COM	163	Interpersonal Communication	(3)

Social Science and Humanities 21 Hrs.

*ECO	213	Microeconomics	
		or	
*ECO	223	Macroeconomics	(3)
*GOV	113	Introduction to Government	(3)
*HIS	103	American History I	
		and	
*HIS	113	American History II	
		or	

*HIS 203	World Civilization I		*MA 103	Business Algebra	
and			or		
*HIS 213	World Civilization II	(6)	*MA 113	College Algebra	
*SOC 103	Introduction to Sociology	(3)	or		
*Humanities Elective		(3)	*MA 153	Elements of Mathematics	(3)
*Humanities Elective		(3)	*BIO 103	General Biology	(3)
			*Math or *Science Elective		(3)
			Science Elective		(3)
Computer Literacy		3 Hrs.			
*INF 103	Information Technology Applications		Additional Program Requirements		6 Hrs.
or					
*INF 113	Business Computer Applications	(3)	Electives		(6)
Mathematics And Science		12 Hrs.	Total in Degree Program:		124 Hrs.

ASSOCIATE IN ACCOUNTING

The associate in accounting degree program is designed to prepare students for immediate entry into the accounting field. It combines a concentration in accounting and computer science with business, economics, and general education requirements. This program is especially appropriate for positions in businesses requiring a small but knowledgeable accounting staff. All of the courses apply to the four-year accounting major at Trine, so this degree also serves as an excellent beginning for students who subsequently plan to seek the Bachelor of Business Administration degree with an accounting major.

In the degree program descriptions that follow, an asterisk (*) indicates that those courses satisfy the University's general education requirements.

Associate In Accounting		64 Hrs.	General Education Requirements		22 Hrs.
Program Requirements		Required Hours	Written Communication		
Associate Business Core		18 Hrs.			
AC 203	Accounting I	(3)	*ENG 103	English Composition I	(3)
AC 213	Accounting II	(3)	*ENG 113	English Composition II	(3)
BA 123	Business Concepts	(3)	Social Sciences and Humanities		
LAW 203	Business Law I	(3)	*Humanities elective		(3)
MK 303	Marketing	(3)	*ECO 213	Microeconomics	(3)
MGT 363	Organizational Behavior	(3)			
Accounting Core		15 Hrs.	Computer Literacy		
AC 303	Cost Accounting	(3)	*INF 103	Information Technology Applications	
AC 323	Intermediate Accounting I	(3)	or		
AC 333	Intermediate Accounting II	(3)	*INF 113	Business Computer Applications	(3)
AC 373	Accounting Information Systems	(3)	Mathematics and Science		
AC 423	Income Tax	(3)	*MA 103	Business Algebra	(3)
Additional Program Requirements		9 Hrs.	*Science Elective		(3)
*SP 203	Effective Speaking	(3)	*Math or Science Elective		(1)
*COM 213	Business Communication	(3)	Total in Degree Program:		64 Hrs.
*ECO 223	Macroeconomics	(3)			

ASSOCIATE IN BUSINESS ADMINISTRATION

The associate in business administration degree program is designed to prepare a person for entry into business with a broad understanding of the various business activities and their interrelationships. All of the courses apply to the four-year management major at Trine University, so this degree also serves as an excellent beginning for students who subsequently plan to seek the bachelor of business administration degree.

In the degree program descriptions that follow, an asterisk (*) indicates that those courses satisfy the University's general education requirements.

Associate In Business Administration			64 Hrs.	Written Communication		
Program Requirements			Required Hours			
Associate Business Core			21 Hrs.	*ENG 103	English Composition I	(3)
				*ENG 113	English Composition II	(3)
AC	203	Accounting I	(3)	Social Sciences and Humanities		
AC	213	Accounting II	(3)			
BA	123	Business Concepts	(3)	*Humanities elective		(3)
BA	233	Business Capstone Demonstration	(3)	*ECO 213	Microeconomics	(3)
LAW	203	Business Law I	(3)	Computer Literacy		
MK	303	Marketing	(3)			
MGT	363	Organizational Behavior	(3)	*INF 103	Information Technology Applications	
Business Electives			12 Hrs.	or		
				*INF 113	Business Computer Applications	(3)
Electives prefixed by AC, BA, INF, ECO, FIN, LAW, MGT, or MK.				Mathematics and Science		
Additional Program Requirements			9 Hrs.	*MA 103	Business Algebra	(3)
*SP	203	Effective Speaking	(3)	*Science Elective		(3)
*COM	213	Business Communication	(3)	*Math or Science Elective		(1)
*ECO	223	Macroeconomics	(3)	Total in Degree Program:		
General Education Requirements			22 Hrs.	64 Hrs.		

ASSOCIATE OF SCIENCE IN ENGINEERING TECHNOLOGY

Associate of Science in Engineering Technology

Program Requirements			Required Hours	ETD 243	Statics & Strength of Materials	(3)
Engineering Technology Core			33 Hrs.	ETD 263	Design, Analysis & Prototyping	(3)
ETD	103	Basic Technical Drawing	(3)	ETD 273	Electrical Fundamentals	(3)
ETD	113	Geometric Dimensioning & Tolerancing	(3)	ETD 293	Introduction to CNC	(3)
ETD	123	Manufacturing Materials & Processes	(3)	General Education		
ETD	163	Environmental Health & Safety	(3)	32 Hrs.		
ETD	173	Computer Aided 3-D Modeling	(3)	Written Communication		
ETD	203	Basic Mechanisms	(3)	*ENG 103	English Composition I	(3)
ETD	233	Engineering & Manufacturing Systems	(3)	*ENG 133	Technical Communication	(3)
				Oral Communication		
				*SP 203	Effective Speaking	(3)

Social Sciences and Humanities

*Humanities Elective (3)

*ECO 213 Microeconomics (3)

Computer Literacy

*INF 103 Information Technology Applications

or

*INF 113 Business Computer Applications (3)

Math and Science

*MA 113 College Algebra (3)

*MA 123 Trigonometry (3)

*CH 144 Chemistry—Ideas and Applications (4)

*PH 154 College Physics I (4)

Total in Degree Program**65 Hrs.**

UNDERGRADUATE COURSE DESCRIPTIONS

KEY TO COURSE PREFIXES

AC	Accounting	ETD	Engineering Technology	INF	Informatics
ARC	Architecture	FIN	Finance	LAW	Law
ART	Art	FLM	Film	LE	Law Enforcement
AST	Astronomy	GE	General Engineering	MA	Mathematics
AU	Auctioneering	GEO	Geography	MAE	Mechanical & Aerospace Engineering
BA	Business Administration	GLY	Geology	MGT	Management
BIO	Biology	GS	General Studies	MK	Marketing
BE	Biomedical Engineering Management	GOV	Government	MUS	Music
CE	Civil Engineering	HC	Healthcare Management	PH	Physics
CH	Chemistry	HIS	History	PHL	Philosophy
COM	Communication	HOS	Hospitality and Tourism	PL	Pre-Legal Studies
CS	Computer Science	HPE	Health & Physical Education	PSY	Psychology
EAS	Earth Science	HR	Human Resource	SOC	Sociology
ECE	Electrical & Computer Engineering			SP	Speech
ECO	Economics			SPN	Spanish
EGR	Engineering Graphics			UE	University Experience
EM	Emergency Management				
ENG	English				
ENT	Entrepreneurship				
ES	Engineering Science				

COURSE NUMBERING SYSTEM

Course numbers are found at the beginning of the course description immediately following the course prefix.

Courses numbered 000: preparatory, non-credit

Courses numbered 100: freshman-level courses

Courses numbered 200: sophomore-level courses

Courses numbered 300: junior-level courses

Courses numbered 400: senior-level courses

Courses numbered 500: graduate-level courses

Courses numbered 600: graduate-level courses

EXAMPLE OF COURSE PREFIX AND NUMBER

AC 303: This course prefix and number means that this is an Accounting junior level course.

COURSE TITLE

The course title follows the course prefix and number.

COURSE LEVEL REQUIREMENTS

Courses at the 100 level within the student's major may not be taken in the senior year without permission of the department chair of the student's major.

COURSE DESCRIPTIONS

ACCOUNTING

AC 203 ACCOUNTING I 3 CR

This course is a study of the accounting process and the use of accounting information in business decisions. Topics include the processing of accounting information, income measurement, accrual accounting and accounting for assets, liabilities and equity in

the corporate environment. The complete accounting cycle for a service and merchandising business and software applications are included. **Prerequisite:** INF 103 or INF 113, MA 103

AC 213 ACCOUNTING II 3 CR

This course includes the accumulation and use of accounting information by management in planning, control and decision-making. Topics include product costing, budgeting, cost-volume-profit relationships, variable costing and statement of cash flows. Software applications are included. **Prerequisite:** AC 203

AC 303 COST ACCOUNTING 3 CR

Managerial accounting concepts, objectives, techniques, and systems are examined to provide information about financial and non-financial performance measurement. Cost accumulation, allocation, and variance analysis are studied in the context of performance evaluation and responsibility accounting in an organization. Emerging cost concepts and systems are also examined. The course uses computer applications. **Prerequisite:** AC 213

AC 323 INTERMEDIATE ACCOUNTING I 3 CR

This course introduces comprehensive accounting theory and practice with emphasis on financial statement preparation and analysis. Current problems of corporate accounting and reporting are thoroughly covered, including cash, inventories, fixed assets, intangible assets, and marketable securities. The course uses computer applications. **Prerequisite:** AC 213

AC 333 INTERMEDIATE ACCOUNTING II 3 CR

This is a continuation of Intermediate Accounting I. Areas covered include contingent liabilities, capital structure, leases, revenue recognition, earnings per share, pensions, and income taxes. This course uses computer applications. **Prerequisite:** AC 323

AC 343 INTERMEDIATE ACCOUNTING III 3 CR

This is a continuation of Intermediate Accounting II. This course continues in-depth coverage of complex topics such as earnings per share, pensions, leasing, accounting for income taxes, accounting changes and full disclosures. The course uses computer applications. **Prerequisite:** AC 333

AC 353 TAX AND LEGAL ISSUES FOR SMALL BUSINESS 3 CR

This course covers tax and legal topics pertinent to small businesses, including; form of business organization, creating or acquiring a small business, tax planning, benefit and retirement plans, personal asset protection, and estate and succession planning.

Prerequisite: AC 213

AC 373 ACCOUNTING INFORMATION SYSTEMS 3 CR

This course is designed to provide a working knowledge of accounting information system concepts. The course will emphasize designing and/or evaluating accounting systems in terms of both system controls and meeting internal control objectives. The course uses computer applications. **Prerequisites:** INF 113, FIN 303

AC 403 ADVANCED ACCOUNTING 3 CR

This course covers specialized topics in accounting including branches, segment reporting, business combinations, consolidated financial statement preparation and accounting for partnerships. This course uses computer applications. **Prerequisite:** AC 333

AC 413 GOVERNMENTAL AND NOT-FOR-PROFIT ACCOUNTING 3 CR

This course introduces fund accounting and covers the theory and accounting process for governmental and not-for-profit organizations. The accounting for estates and trusts is also included. This course uses computer applications. **Prerequisite:** AC 333

AC 423 PERSONAL INCOME TAX 3 CR

This course introduces basic concepts of tax law with the emphasis on the underlying concepts common to all entities as they relate to everyday economic life. Special emphasis is placed on taxation of individuals and corporations. Computerized income tax preparation and research are included. **Prerequisite: AC 213**

AC 433 CORPORATE INCOME TAX 3 CR

This course includes specialized topics including taxation of partnerships and other conduit entities. Property transactions, specialized topics and tax research are covered. Computerized preparation of tax returns for various entities is included. **Prerequisite: AC 423**

AC 463 AUDITING 3 CR

Auditing theory, objectives, and procedures leading to the auditor's opinion on the financial statements are studied. Internal control and its evaluation, auditing standards, and the use of statistical sampling in the audit process are covered in depth. This course uses auditing software applications. **Prerequisite: AC 323**

ARCHITECTURE

ARC 292 ARCHITECTURE APPRECIATION 2 CR

An introduction to the built environment, prehistoric to modern, focusing on public/reverential, commercial and residential architecture. Students will be introduced to terminology, some construction techniques, socio-legal implications of high-rise structures, and architectural styles from ancient to postmodern. Structures from around the world will be viewed and discussed.

ART

ART 252 ART APPRECIATION 2 CR

Designed as an introduction to the arts, this course develops aesthetic-critical responses and seeks to enhance the enjoyment of works of art. Painting, sculpture, architecture and other types of art are analyzed in terms of the elements of art, subject, function, medium, organization, style and aesthetic response.

ASTRONOMY

AST 201 ASTRONOMY LABORATORY 1 CR

An introductory laboratory study of basic observational astronomy and the tools of astronomy as students explore the sky. The stars, the planets and the universe of galaxies are observed and measured by observation or computer simulation.

Co requisite or Prerequisite: AST 203

AST 203 ASTRONOMY 3 CR

An introduction to the field of astronomy, this course is a study of the planets and the stars and their formation and life cycles. The history of the Milky Way Galaxy and the history of the cosmos are studied, with an emphasis on the solar system and methods of observation and measurement.

AUCTIONEERING

AU 103 INTRODUCTION TO AUCTIONEERING 3 CR

A general overview of the auctioneering profession, including an introduction to professional behavior, ethics, business management, and auctioneering specialties. The history of the auction method of marketing will also be discussed.

AU 203 ASSET APPRAISING 3 CR

This course is an overview of asset appraisal and valuation methods. Exploration of marketing strategies and options based on the classification of the item being appraised. Basic appraisal policies of the Uniform Standards of Professional Appraisal Practices will be examined. **Prerequisite:** AU 103

AU 213 AUCTIONEERING SPECIALTIES 3 CR

An in-depth examination of the specialty disciplines within the auctioneering environment. Specialty areas include estate or household auctions, liquidations, consignments, and auction houses. Also included will be the sale of auto, livestock, antiques, furniture, jewelry, and fine art. **Prerequisite:** AU 103

AU 303 REAL ESTATE OF AUCTION 3 CR

An in-depth study of the role of the auctioneering profession in relation to real estate, including discussion of property and land appraisals. Includes marketing, multi-parcel sales, disclosures, and environmental issues. **Prerequisite:** AU 103

AU 313 AUCTION ARENA MANAGEMENT 3 CR

This course explores the management of activities involved in the actual auction process. Topics will include bid calling, the role of the “spotter”, managing the flow of product through the auction arena, record management of seller/bidder/buyer activities from introduction of the product through completed sale, and payment for goods received. Voice use, care, and management will be explored. **Prerequisite:** AU 103

AU 403 EXTERNSHIP 3 CR

A project or an interactive experience conducted under the supervision of a faculty advisor in partnership with the auctioneering profession. This project offers the student the opportunity to integrate theory and coursework with practice. **Prerequisite:** Senior standing

BUSINESS ADMINISTRATION

BA 123 BUSINESS CONCEPTS 3 CR

A survey course designed to introduce the student to business issues and practices in the United States. All major functions of business are included (management, marketing, law, finance, economics, operations, accounting, information technology) as well as issues facing the business person (ethics, globalization, motivation, etc.) Suitable for students considering a career in business as well as for non-business majors who will interact with the business enterprises (e.g., educators, engineers). Planning for a business career through the creation of a portfolio is initiated. A major focus of this course is on career planning, beginning at the student's current career stage. A career plan is required for completion of the course.

BA 233 BUSINESS CAPSTONE DEMONSTRATION 3 CR

This capstone course will provide students the opportunity to integrate and synthesize previous course work in business. In addition, to the Capstone Demonstration Project, students will be required to take the Major Field Test for the associate in business degree program. **Prerequisite:** All required coursework in the Associate of Business Core

BA 301 PROFESSIONAL DEVELOPMENT & STRATEGIES 1 CR

This is a practical course to assist the student in the development of a professional job search portfolio (i.e. résumé, cover letter, follow-up letters). The course includes self-appraisal and career goal setting, job interview techniques, and familiarization with employment resources. Professional strategies are emphasized in the areas of business attire, etiquette and protocol, ethics, human relations, and corporate culture. **Prerequisites:** Business major, junior or senior standing or permission of the instructor

BA 303 QUANTITATIVE ANALYSIS IN BUSINESS 3 CR

This course builds on designing operations and applies quantitative techniques to common business problems, preparing the student to make data-driven decisions. Topics include decision theory, Bayesian analysis, forecasting, linear programming, dynamic programming, game theory, transportation model assignment and scheduling modeling, simulations, and queuing theory. **Prerequisites:** MA 253, MGT 353 (Same as ECO 303)

BA 313 INSURANCE 3 CR

This course includes the fundamental principles and practices as they relate to life, compensation, fire, marine, and automobile insurance. **Prerequisites:** LAW 203, MK 303 or permission of the instructor.

BA 323 REAL ESTATE 3 CR

This course is the study of problems of buying and leasing real property for residence or investment purposes, including the principal commercial and financial transactions involved.

Prerequisites: LAW 303, MK 303, or permission of the instructor

BA 333 SOCIAL MEDIA FOR BUSINESS 3 CR

Concepts include using digital and social media in a business/industry setting. Concepts include setting up and using wikis, blogs, Facebook, MySpace, Twitter, YouTube, LinkedIn, Ning, Flickr, and other online modalities as a way to increase business, marketing, research, and customer service opportunities. Group work at local businesses will be required. **Prerequisites:** INF 113

BA 343 INTERNATIONAL BUSINESS 3 CR

This course discusses economic principles of trade as applied to international business, world international trade environment and trends, world geography and culture as it impacts international trade, knowledge of the operation of importing and exporting, aspects of manufacturing and marketing in foreign markets, and the application of the functions of business to an international business operation. **Prerequisites:** ECO 213, ECO 223 or concurrent with ECO 223

BA 403 BUSINESS AND PUBLIC POLICY 3 CR

This course includes an analysis of the legal, political, and economic framework that has shaped public policy toward business in the United States. It will include the methods as to how public policy is created and its implications for management decision making. The issues that this course will be concerned with are: how public policy is related to societal, community, employee, consumer, and environmental concerns and their implication for business. **Prerequisites:** MGT 363, ECO 223, LAW 203, MK 303, or permission of the instructor (same as ECO 453)

BA 423 ENTREPRENEURSHIP 3 CR

This course focuses on entrepreneurship and small business management. Through case studies, simulations, guest lectures, reading and business plan development, students become aware of the unique challenges facing small business owners and entrepreneurs. Students become familiar with the resources available to small business owners, by developing and presenting a business start-up plan. **Prerequisites:** MGT 353, MGT 363, MK 303, Senior business major or permission of the instructor

BA 3113 BUSINESS INTERNSHIP 3 CR

The course involves a meaningful work experience related to the student's field of study or other functional areas of business in an approved company. The assignment and company must be approved by the School of Business Internship Coordinator. A maximum of 6 semester credit hours can be counted toward degree requirements, with a maximum of 3 credit hours for any one work session. **Prerequisites:** Business Major, Sophomore or above class standing, GPA 2.5 or above, and permission of the advisor

BIOLOGY

BIO 103 GENERAL BIOLOGY (NO LAB) 3 CR

An introduction to the basic principles of biology with an emphasis on: biological chemistry, cell biology, metabolism, genetics, diversity of organisms, evolution, and ecology. A background in high school chemistry is strongly recommended.

Open to non-science majors only.

BIO 104 GENERAL BIOLOGY 4 CR

An introduction to the basic principles of biology with an emphasis on: biological chemistry, cell biology, metabolism, genetics, diversity of organisms, evolution, and ecology. A background in high school chemistry is strongly recommended. Open to non-science majors only. This course cannot be substituted for BIO 114 for either science or engineering majors.

BIO 113 PRINCIPLES OF BIOLOGY (NO LAB) 3 CR

Five basic topics are discussed in some detail: the chemical logic of living systems, structure and function at the sub-cellular and cellular levels, cell energetics, cell division, genetics, and evolution. Laboratory exercises designed to introduce the student to scientific investigation and the structure and function of biological systems are an essential part of the course.

BIO 143 CONSERVATION 3 CR

A study of biodiversity, including the negative impact of human society and what can be done to preserve it. Topics include measurement of biodiversity, extinction, habitat destruction, fragmentation, degradation, overexploitation, and invasive species. Lab focuses on communities and small populations by using GIS, GPS, computer modeling and the design, management and restoration practices of natural areas. **(Same as EAS 143)**

BIO 203 OCEANOGRAPHY 3 CR

A description of the oceans and their relation to humans. The principles of physical, chemical, geological, and biological oceanography are used to explain the ocean environment. Society's effect on the oceans and problems and potentials of utilizing the natural resources of the sea. **Prerequisites: A laboratory science and MA 113 (Same as EAS 203 and GEO 203)**

BIO 243 HUMAN ANATOMY AND PHYSIOLOGY(NO LAB) 3 CR

The anatomical and physiological features of each organ system are identified. **Prerequisite: BIO 103 or BIO 113**

BIO 244 HUMAN ANATOMY AND PHYSIOLOGY 4 CR

The anatomical and physiological features of each organ system are identified. Microstructure observation and detailed dissection in the laboratory. **Prerequisite: BIO 104 or BIO 114**

BIO 253 HUMAN ANATOMY (NO LAB) 3 CR

The anatomical features of each organ system are identified. **Prerequisite: BIO 103 or BIO 113**

BIO 254 HUMAN ANATOMY 4 CR

The anatomical features of each organ system are identified. Microstructure observation and detailed dissection in the laboratory. **Prerequisite: BIO 104 or BIO 114**

BIO 274 GENERAL ECOLOGY 4 CR

A study of the interactions of organisms and environments, this course focuses on individuals, populations, communities, ecosystems, landscapes and cycling of matter within energy systems. Investigations focus on techniques to gauge interactions between the biological and physical environments, field and conceptual sampling methods, statistical analysis, population models, and an exploration of emerging technologies in ecology. **Prerequisites BIO 113, MA 253**

BIO 434 BIOCHEMISTRY 4 CR

A study of the chemistry, kinetics, energetics, and metabolic pathways of biological molecules such as carbohydrates, lipids, proteins, nucleic acids and enzymes are discussed and supported by laboratories that illustrate biochemical reactions, separations, enzyme kinetics, and analysis. **Prerequisites: CH 211, CH 213 (Same as CH 434)**

BIOMEDICAL ENGINEERING

BE 313 BIO-MEDICAL MATERIALS 3 CR

The basic mechanical, electrical, optical, thermal, and magnetic properties of engineering materials; structure of matter; crystalline structure and imperfections; environmental effects; selection and application of materials for biomedical prosthetics. **Prerequisites: All Engineering Science Core (ES223, ES233, ES243, ES313, ES323, ES253, ES382)**

BE 323 BIO-MEDICAL KINEMATICS 3 CR

Kinematic and dynamic analysis of mechanisms. Computer-aided kinematic design. Experimental studies of mechanical properties of structural elements and prosthetics. **Prerequisites:** All Engineering Science Core (ES223, ES233, ES243, ES313, ES323, ES253, ES382) **Co requisites:** BE 313

BE 333 BIO-MEDICAL ELECTRICITY 3 CR

Advanced electrical circuit theory. Examples will include bioelectric systems and signals and models of biological systems. **Prerequisites:** All Engineering Science Core (ES223, ES233, ES243, ES313, ES323, ES253, ES382) and BE 313 **Co requisites:** BE 323

BE 403 BIO-MEDICAL IMAGING & MEASUREMENT SYSTEM 3 CR

An introduction to concepts of imaging, sensing, and measurement systems that underlie a wide range of biomedical imaging modalities. Topics covered include cell imaging, multiphoton microscopy for biomedical studies, molecular imaging, infrared imaging, biomedical magnetic imaging, X-ray imaging, nuclear medicine, magnetic resonance imaging, and ultrasound imaging. **Prerequisites:** All Engineering Science Core (ES223, ES233, ES243, ES313, ES323, ES253, ES382) and BE 313, BE 323 **Co requisites:** BE 333

BME 423 BIO-MEDICAL HUMAN MECHANICS 3 CR

Mechanics of deformable bodies. Uniaxial tension, compression, bending, and torsion applied to orthopedic biomechanics. Rigid body planar kinematics and dynamics, finite element techniques with applications to the biomechanics of walking, running, cycling, and other athletic activities. **Prerequisites:** All Engineering Science Core (ES223, ES233, ES243, ES313, ES323, ES253, ES382) and BE 313, BE 323, BE 333 **Co requisites:** BE 403

BE 463 BIO-MEDICAL DESIGN FUNDAMENTALS 3 CR

Introduction to Design Concepts in Biomedical Engineering. This course aims to educate students on project definition, and on the design, development and technology transfer of potential biomedical products in the context of the student's major capstone project. Students will learn best practices for designing a marketable medical device, including the design process from the clinical problem definition through prototype and clinical testing to market readiness. **Prerequisites:** All Engineering Science Core (ES223, ES233, ES243, ES313, ES323, ES253, ES382) and BE 313, BE 323, BE 333, BE 403 **Co requisites:** BE 423

CIVIL ENGINEERING

CE 3201 CIVIL ENGINEERING MATERIALS LAB 1 CR

Testing and evaluation of physical and mechanical properties of engineering materials such as steel, portland cement, concrete, masonry, asphaltic concrete, and timber. **Corequisite:** CE 3203

CE 3203 CIVIL ENGINEERING MATERIALS 3 CR

Testing and evaluation of physical and mechanical properties of engineering materials. Origin, manufacture, and structural applications of metals, aggregates, bituminous materials (including superpave), portland cement, and concrete. **Corequisite:** CE 3201; ES 243

CE 3503 STRUCTURAL ANALYSIS 3 CR

Concept of work and reciprocal theorems. Influence functions and elastic deformations. Analysis of statically determinate and indeterminate structures. Study of the load flow in typical building systems and the idealization of the structural members. **Prerequisite:** Grade of "C" or better in ES 243

CE 3513 STRUCTURAL STEEL DESIGN 3 CR

Analysis and design of structural steel members. Column buckling and lateral stability of beams. Codes and specifications. **Prerequisite:** CE 3503; **Corequisite:** CE 3203

CE 3533 REINFORCED CONCRETE DESIGN 3 CR

Material properties. Analysis, design and serviceability of reinforced concrete flexural members and columns. Design and development of reinforcement. Codes and specifications. **Prerequisite:** CE 3503; **Corequisite:** CE 3203

CHEMISTRY

CH 104 GENERAL CHEMISTRY I 4 CR

Fundamentals of chemistry with emphasis on atomic structure, stoichiometry, thermochemistry, properties of solution, properties of matter. The laboratory is quantitative in nature. **Prerequisite:** MA 113

CH 144 CHEMISTRY — IDEAS AND APPLICATIONS 4 CR

An integrated view of organic and biological chemistry for non-science majors, emphasizing the importance of chemistry to daily living and chemical principles related to everyday experiences. Simulated chemical problems in the laboratory. **This course cannot be substituted for CH 104 or CH 114 for either science or engineering majors.**

COMMUNICATION

COM 101 FRESHMAN MEDIA PRACTICUM 1 CR

Individual participation in work at WEAX, the Triangle, or the Modulus, involving at least 30 hours of work during the semester. **Prerequisite:** Communication major or minor

COM 123 INTRODUCTION TO ELECTRONIC MEDIA 3 CR

This course addresses the development and use of radio, television and new electronic/digital media in American society. It also explores the technical basis of inventions as well as pioneers who fueled growth and direction of broadcasting, cable and emerging electronic media systems throughout the U.S. leading to a myriad of programming choices and employment opportunities.

COM 153 PRINCIPLES OF PUBLIC RELATIONS 3 CR

Role of public relations as a communication device within organizations including theory, identification of audiences, sophisticated techniques, planning and execution of public relations programs and evaluation of effects. The course introduces students to various communications tools with special emphasis given to methods that practitioners use to promote their products and organizations, including the development of new technologies that are rapidly replacing conventional mass media.

COM 163 INTERPERSONAL COMMUNICATION 3 CR

Communication concepts and principles are pragmatically applied to interpersonal communication in work, college, dating, family, and social settings. Communication exercises, role plays, and case studies enable students to analyze communication dynamics and improve communication skills employing language, nonverbal communication, listening, perception of self and others, relationship development, and assertiveness. Extensive training in conflict management skills and analysis.

COM 183 WRITING FOR THE MEDIA 3 CR

Provides a brief introduction to the principles, practices, and professional requirements of the journalism profession, but the focus is on discussion and application of reporting and writing techniques for print and electronic media. Work on The Triangle, The Modulus, and/or WEAX is required. **Prerequisite:** ENG 113 or 133

COM 203 MEDIA AND COMMUNICATION 3 CR

Provides an introductory historical and expository survey of key mass media and popular art forms (including books, newspapers, magazines, radio, film, television, photography, music, advertising, and the Internet). Emphasizes, through exercises in becoming “media literate,” the persuasive, often insidious, power of society’s “consuming images,” both visual and aural. **Prerequisite:** ENG 113 or ENG 133

COM 213 BUSINESS COMMUNICATION 3 CR

Emphasis on effective research, writing, and document design in project management, including proposals, periodic and progress reports, formal completion reports, and correspondence. Also considers communication in meetings, the employment process, and presentation using PowerPoint. **Prerequisite: ENG 113 or 133**

COM 233 INTERCULTURAL COMMUNICATION 3 CR

Considers interrelationships between communication and culture, the diversity between and within cultures, and both the challenges and the richness of communication posed by such diversity, including within U.S. culture. Topics include cultural patterns, worldview and perception, cultural identity, verbal and nonverbal communication, listening, family and relationships, and business.

COM 253 SPORTS MEDIA AND PROMOTION 3 CR

Examines the various publicity, promotion and public relations responsibilities, duties and challenges aspiring professionals seeking careers in college and professional sports promotion and information will face. The course also includes development of aspects involved in the staging of a major sports-oriented community event. **Prerequisite: COM 153 or sophomore standing**

COM 263 THEORIES AND PRACTICES IN COMMUNICATION 3 CR

An introduction to the disciplines and professions of communication. Considers quantitative, qualitative, and humanistic research and theories for understanding language, nonverbal communication, listening, persuasion/rhetoric, and communication context. Indicates how communication knowledge, research techniques, and skills are employed in various professions and considers professional preparation strategies such as communication portfolio development.

COM 283 SPORTS WRITING 3 CR

Techniques, instruction and practice in news gathering, evaluation, reporting, writing and editing local, regional and national sports news. Topics will include research, style, interviewing skills, how newsroom decisions are made for sports stories and features. Each student will be required to submit articles to the Triangle and other local media for possible publication. **Prerequisite: ENG 113**

COM 301 MEDIA PRACTICUM 1 CR

Practical media experience through work at WEAX, the Triangle, or the Modulus. Requires a minimum 30 hours of work for the semester and written mid-semester and final reports. May be repeated, but for no more than a total of three credit hours. Any alternate supervised media experience requires department chair approval. **Prerequisite: Communication major or minor**

COM 323 THE BUSINESS OF ELECTRONIC MEDIA 3 CR

This course examines how electronic media organizations throughout the U.S. are dealing with today's competitive pressures, new technologies, and financial strains. Discuss how radio and television programming...practices that once galvanized families during respective golden ages of radio/TV...to the explosion of electronic media choices that are currently available to audiences and advertisers.

COM 353 PUBLIC RELATIONS WRITING AND PRODUCTION 3 CR

Application of persuasive writing and communication principles and of document and visual design principles to public relations writing and production formats, such as backgrounders, news releases, media advisories, newsletters, brochures, direct mail, op-ed pieces, media kits, web pages, persuasive speeches, PSAs, and audio (ANR) and video (VNR) news releases. Assignments include developing potential client content for WEAX, the Triangle, and/or the Modulus, as well as use of the digital video editing lab to produce electronic PR media. **Prerequisites: COM 213 OR ENG 133**

COM 363 PERSUASION AND ARGUMENTATION 3 CR

Knowledge of concepts and principles of persuasion, rhetoric, and argumentation is applied through debate and other exercises designed to improve skill in reasoning, argumentation, persuasion, planning, and rational decision-making. Students develop skill in analyzing and planning worthy and effective oral, written, and mediated persuasive communication. **Prerequisite: SP 203**

COM 373 TOPICS IN COMMUNICATION 3 CR

Detailed survey of one of the major areas within the discipline of communication. The course changes each time it is offered, with the specific topic announced in the class schedule.

COM 400X ELECTIVE INTERNSHIP VARIES (1-3 HRS.)

Elective internship with variable credit of from one to three hours, with a minimum of 40 hours of work per credit hour. May be repeated for credit, but the total credit hours of elective and/or capstone internship may not exceed six hours total. **Prerequisites: COM major or minor, 2.5 G.P.A**

COM 4013 SENIOR CAPSTONE INTERNSHIP IN COMMUNICATION (3 HRS.)

An internship including capstone requirements, such as submission of a proposal and of written and oral final reports, and requiring a minimum of 90 hours of work. **Prerequisites: Must not have taken more than three credits of COM 400X, senior Communication major, 2.5 G.P.A.**

COM 410X INDEPENDENT STUDIES IN COMMUNICATION VARIED (1-4 HRS.)

An individualized reading and research project in the communication discipline. **Prerequisite: Permission of the Dean for the School of Professional Studies**

COM 413 CORPORATE AND ORGANIZATIONAL COMMUNICATION 3 CR

Principles and skills for effective communication within task-oriented teams, nonprofit organizations, and corporations. Considers communication techniques to improve meetings, problem-solving, decision-making, and communication climate, while fostering cohesiveness and productivity. Also considers the role of communication consultants and trainers and of internal media such as newsletters, brochures, and electronic communication. Team projects apply techniques and refine communication skills essential for internal contexts. Teams conduct a client-based communication audit or ethnography of an organization or corporate office. Participation in development of content for the Triangle, the Modulus, and/or WEAX is also required. **Prerequisite: COM 213 or ENG 133**

COM 422 CAMPUS MEDIA MANAGEMENT 2 CR

Experience in assuming substantial student management responsibilities at WEAX, The Triangle, or The Modulus.

Prerequisite: Communication major or minor, and permission of both the Dean and the appropriate campus media Operations Manager or Advisor

COM 4281 SENIOR COMMUNICATION PROJECT PROPOSAL 1 CR

Application of communication principles and skills by planning and developing a formal proposal for a capstone communication campaign or project. **Prerequisite: Senior Communication major**

COM 4292 SENIOR COMMUNICATION PROJECT 2 CR

Application of communication principles and skills by implementing and evaluating a capstone communication campaign or project. **Prerequisites: Must have taken COM 4281**

COM 453 PUBLIC RELATIONS PLANNING AND CAMPAIGNS 3 CR

Knowledge and skills needed in the public relations planning, decision-making, and problem-solving process of research, objectives, programming, and evaluation. Case studies and problems apply planning and execution of PR campaigns and relations with a variety of publics: media, employees, members, communities, government and the public, investors, consumers, international, and special groups. Includes crisis and emergency PR and PR aspects of integrated marketing communications. Individuals develop oral and written client-based campaign proposals to solve problems or to utilize opportunities, while teams develop and execute a short term PR campaign for a campus or community client. **Prerequisites: COM 213 or ENG 133**

COMPUTER SCIENCE

CS 1113 OBJECT-ORIENTED JAVA PROGRAMMING 3 CR

An introduction to programming. We begin with a history of computing, and then keep an eye on software-engineering issues including design/test, tools, and risks as we introduce: objects and classes; variables, types and assignment; message passing; inheritance; control structures; the concept of, and properties of, algorithms, including recursion; arrays and strings; collections and iteration; APIs; and object-oriented design. **Co requisite: MA 103 or higher**

CS 1123 C++ AND OBJECT-ORIENTED DESIGN 3 CR

This course introduces the programming language C++ with emphasis placed on object-oriented design. Students should be able to: Use pointers and arrays; use header files; overload operators; use functions of the standard library; determine a plan for testing a piece of software; organize a program to determine classes and objects; design a graphical user interface. **Pre-requisite: CS 1113**

CS 1303 INTRODUCTION TO THE WORLD WIDE WEB 3 CR

Introduction to computer science through the World Wide Web, focusing on the techniques of web-page creation.

CS 2103 ALGORITHM DESIGN AND ANALYSIS 3 CR

The theory of programming, reinforced with practical activities, such as animations and demonstrations of the time requirements of different algorithms. We investigate proof techniques, time-space analysis of algorithms, classic strategies like greedy search and branch-and-bound, trees and graphs, automata, and applications. Before enrolling in this course, Java programming is required, but further experience in programming is prudent. **Prerequisites: CS 1113**

CS 2213 ARCHITECTURE AND OPERATING SYSTEMS 3 CR

The course reviews digital logic, and investigates the machine representations of data, assembly-level machine organization, memory architecture, and functional control including pipelines. Other topics include the functions of operating systems, and examines processes, interrupts, and kernel modes; concurrency, and scheduling; and memory management. **Prerequisite: CS 1123**

CS 2503 SOFTWARE ENGINEERING & USER INTERFACES 3 CR

This course introduces software engineering from requirements definitions and documents, through system modeling, specification, and design, to verification and validation. It examines project management, software cost estimation, software maintenance, configuration management, documentation, and software quality assurance. This course also examines human-centered development and evaluation and human performance models. It involves students in graphical user interface design and implementation. The course introduces groupware, on-line communities and intelligent agents. **Prerequisite: CS 1123**

CS 2613 ARTIFICIAL INTELLIGENCE AND INFORMATION 3 CR

This course introduces the basic terms and issues of artificial intelligence. It describes knowledge representation and search methods, and learning systems like genetic algorithms and neural networks. The course describes information models and systems, database systems, data modeling, and both relational databases and query languages. **Prerequisite: CS 1123**

CS 3223 NETWORK ARCHITECTURE 3 CR

Topics include distributed algorithms Interfacing and communication; multiprocessing architectures; LAN, WAN, and ISO/OSI; concurrency; scheduling; real-time issues; fault-tolerance; system performance measurement; scripting. **Prerequisite: CS 2213**

CS 3303 NET-CENTRIC COMPUTING 3 CR

Communication and networking: the ISO 7-layer model; client/servers on the web; building web applications; network management: security, firewalls, quality-of-service; compression and decompression; multimedia technologies and capacity issues; wireless and mobile computing protocols, LANs, and performance, and extending client/server ideas to mobile computing. **Prerequisite: CS 3223**

CS 4013 COMPUTER GRAPHICS 3 CR

This course includes both two and three dimensional computer graphics. Topics include windows and view-ports; geometric transformations, hidden surfaces, and file formats. It introduces standard libraries such as VCL. **Prerequisite: ECE 263**

CS 4023 COMPILER CONSTRUCTION 3 CR

This course introduces compiler design for procedural languages. Topics include formal grammar, lexical, syntax, and semantic analysis, parsing, code generation and optimization, and compiler writing tools. **Prerequisite CS 2213**

CS 4033 SPECIAL TOPICS 3 CR

Addresses advanced topics that vary by year. **Prerequisite: consent of instructor**

CS 4903 CAPSTONE PROJECT 3 CR

A team project that requires interaction with users and formal reporting. A student who intends to pursue graduate study and who can demonstrate team work from other experience may be assigned a solo research project. **Prerequisite: CS 2503**

EARTH SCIENCE

EAS 143 CONSERVATION 3 CR

A study of biodiversity, including the negative impact of human society and what can be done to preserve it. Topics include measurement of biodiversity, extinction, habitat destruction, fragmentation, degradation, overexploitation, and invasive species. Lab focuses on communities and small populations by using GIS, GPS, computer modeling and the design, management and restoration practices of natural areas. **(Same as BIO 143)**

EAS 203 OCEANOGRAPHY 3 CR

A description of the oceans and their relation to humans. The principles of physical, chemical, geological, and biological oceanography are used to explain the ocean environment. Society's effect on the oceans and problems and potentials of utilizing the natural resources of the sea included. **Prerequisites: A lab science and MA 113 (Same as BIO 203 and GEO 203)**

EAS 213 PHYSICAL GEOGRAPHY 3 CR

An analysis of the spatial and functional relationships among landforms, climates, soils, water, and the living world. This course also addresses the connections between environmental processes and human activity, such as human impact on the environment. **(Same as GEO 213)**

EAS 253 WEATHER & CLIMATE 3 CR

Elementary description of the atmosphere: its motion systems, thermal characteristics, clouds and precipitation, weather map interpretation and analysis; climates of the United States. The course conveys meteorological concepts in a visual, practical, and non-mathematical manner.

EAS 273 GEOLOGY 3 CR

An introduction to the field of geology. Study of minerals and rocks and their formation, within the context of the earth's geologic history. Emphasis on soils, running water, and groundwater. Plate tectonics, glaciers, volcanoes, erosion, and weathering are also covered. Non-lab science only. **(Same as GLY 273)**

ELECTRICAL AND COMPUTER ENGINEERING

ECE 261 DIGITAL SYSTEMS LABORATORY 1 CR

The lab provides a comprehensive hands-on opportunity to implement digital design concepts. Logic gates, logic tools, Hardware Description Language(HDL) and Field Programmable Gate Array (FPGA) design boards are extensively introduced to provide different variations of digital design. Students will be able to: Work in a team environment; solve technical problems; Understand switchbounce problems and design a de-bounced switch; Design adders, comparators, multiplexers, tri-state buffers and decoders using AND/OR/NOT/NAND/ NOR logic gates; Design memory cells, BCD 7-segment decoders, flip-flops and counters using logic gates and HDL; Implement the design in an FPGA board. **Co requisite: ECE 263**

ECE 263 DIGITAL SYSTEMS 3 CR

This course covers and explores the introductory concepts of digital systems using combinational and sequential logic circuits. Digital design automation tools and Hardware Description Language (HDL) are also introduced. Students will be able to demonstrate that they: Understand number systems and Boolean algebra; Understand and can design combinational logic circuits including multiplexers, comparators, decoders, and adders; Understand and can design sequential logic circuits including latches, flip-flops and counters; Can design combinational and sequential circuits using HDL and can perform timing analysis; Understand the memory hierarchy, ROMs, RAMs and FLASH memories; Understand Programmable Logic Devices (PLDs), CPLDs and FPGAs. **Co requisite: ECE 261**

ECE 271 MICROCONTROLLERS LAB 1 CR

This course teaches students to implement and test inexpensive hardware software systems that offer a user interface, a digital signal generator, a sampled feedback controller, and subsystem interfacing. You will: test a feedback system using experiments you design, and determine if your project goals are met; design and implement a working feedback controller for a real physical system; team -up on most labs and on one formal report; solve the problem you pose yourself in the feedback project; report findings in formal written documents; use lab bench tools to develop and debug code.

Prerequisite: ECE 261; Co requisite: ECE 273

ECE 273 MICROCONTROLLERS 3 CR

This course teaches students to design inexpensive hardware-software systems that offer a user interface, a digital signal generator, a sampled feedback controller, and subsystem interfacing. You will analyze a microcontroller system for timing; solve problems written in prose by showing a hardware/software system that addresses the problem; empathize with stakeholders of a medical device; teach yourself to use an unfamiliar on-chip peripheral from the manufacturer's data sheet; address power consumption/battery life; use a compiler/assembler/ simulator to develop correctly working code; use the UML to aid design work; respect the IEEE code of ethics. **Prerequisite: ECE 263 and CS 1113 or equivalent; Co requisite: ECE 271**

ECE 371 EMBEDDED SYSTEMS LABORATORY 1 CR

In support of 413, this lab puts students in pairs of triples to explore isolated subsystems from the course project in the usual lab format, and then provides structured time to achieve and demonstrate progress in the project. Students will work in small teams; will show that they can use the tools and techniques of modern embedded systems to implement their designs; will assume responsibility for designing the test or experiments needed to verify their work; and will demonstrate communication skills in formal reports and demonstrations. **Co requisite: ECE 373**

ECE 373 EMBEDDED SYSTEMS 3 CR

Building on 273 (Microcontrollers), this focuses focuses on real-time multitasking and RTOS and includes a design project to explore these ideas, and the course also looks at enabling techniques such as mixed C and assembly, control of linking, external memory, self-programming, and fail-safety. Students will be able to explain and apply real-time multitasking concepts; design and implement an embedded system; design recovery from exceptional conditions; incorporate into their work complex peripherals like PWM-capable timers. **Prerequisite: ECE 273; Co requisite: ECE 371**

ECE 393 SOFTWARE ANALYSIS AND DESIGN 3 CR

Teaches the code development process to students who can use an object-oriented computer language. Students will: identify activities of software project engineering; write a formal requirements document; perform object-oriented analysis of client requirements; use UML class and sequence diagrams to support object-oriented design; apply some software design patterns; implement your designed software in a team supported by a version-control tool; use a professional-caliber GUI library to advantage; and follow coding standards. **Prerequisite: CS 1123**

ECONOMICS

ECO 213 MICROECONOMICS 3 CR

Introduction to the theory of demand and supply and price determination in market economies. The study of individual consumers and producers, different market structures and the distribution of income.

ECO 223 MACROECONOMICS 3 CR

Introduction to the theory of national income determination for the United States and other global economic systems. The study of fiscal and monetary policy tools and the government's role in promoting stability and growth, and the causes of unemployment, inflation, and trade deficits.

ECO 243 ECONOMICS OF SOCIAL ISSUES 3 CR

An economic analysis of social issues, such as the problems of pollution, poverty, crime, and the use of drugs. A study of the economic consequences of various social and economic policies, population pressures and related energy and pollution problems.

Prerequisite: ECO 213 (Same as SOC 243)

ECO 303 QUANTITATIVE ANALYSIS IN BUSINESS 3 CR

This course builds on designing operations and applies quantitative techniques to common business problems, preparing the student to make data-driven decisions. Topics include decision theory, Bayesian analysis, forecasting, linear programming, dynamic programming, game theory, transportation models, assignment and scheduling modeling, simulations, and queuing theory. **Prerequisites:** MA 253, MGT 353 (Same as BA 303)

ECO 323 MONEY AND BANKING 3 CR

This course is a study of the principles of monetary economics. An analysis of the structure and operation of financial institutions and the Federal Reserve System is included. The function of monetary policy within the framework of macroeconomic theory is examined. **Prerequisite:** ECO 223 (Same as FIN 323)

ECO 333 PUBLIC FINANCE 3 CR

This course involves an investigation of the role of the public sector in economic development. Fiscal policy and the practice of public finance are examined. Topics cover cost functions for public goods, externalities, and fiscal federalism. **Prerequisite:** ECO 223 (Same as FIN 333)

ECO 343 ECONOMIC GEOGRAPHY 3 CR

A spiritual approach to economics, the course considers historical, present and future economic activities, developments, and trends, in a global context, with the goal of answering the two basic questions of geography: "where?" and "why there?". **Prerequisite:** ECO 223 (Same as GEO 343)

ECO 363 COMPARATIVE ECONOMIC SYSTEMS 3 CR

A comparison of the capitalist, socialist, communist and mixed economies, theory, history, and application of the system in selected countries. **Prerequisite:** ECO 223

ECO 383 INTERNATIONAL ECONOMICS 3 CR

Introduction to the fundamental theories of international specialization and exchange, and international payments; the analysis of processes and organizations for maintaining equilibrium of international economic relationships. **Prerequisite:** ECO 223

ECO 393 ECONOMIC HISTORY OF THE UNITED STATES 3 CR

A survey of major economic developments in American history. Stresses the changed conditions and values in moving from an agricultural to an industrial society. **Prerequisites:** HIS 103, HIS 113 (Same as HIS 393)

ECO 453 BUSINESS AND PUBLIC POLICY 3 CR

This course includes an analysis of the legal, political and economic framework that has shaped public policy toward business in the United States. It will include the methods as to how public policy is created and its implications for management decision making. The issues that this course will be concerned with are: how public policy is related to societal, community, employee,

consumer, and environmental concerns and their implication for business. (same as BA 403) **Prerequisites:** MGT 363, ECO 223, LAW 203, MK 303, or permission of the instructor

ECO 400X INDEPENDENT STUDIES IN ECONOMICS VARIES (1-4 HRS.)

Credit earned through directed reading, independent study, research or supervised field work. Maximum 4 hours credit.
Prerequisite: Permission of Department Chair

ENGINEERING GRAPHICS

EGR 143 ENGINEERING GRAPHICS 3 CR

Graphical communication for engineers using sketching and computer –aided drafting. The fundamentals of orthographic projection, isometric projection and descriptive geometry are taught. An introduction to three dimensional models using solid modeling computer software is also covered. Emphasis is placed on developing the skills needed for mechanical engineering design.

EGR 153 ENGINEERING GRAPHICS FOR CE 3 CR

Graphical communication by means of sketching and computer-aided drafting. Fundamentals of orthographic projection and descriptive geometry. This course stresses applications of graphic communications, both manually and through the use of CAD systems.

EGR 453 ADVANCED PARAMETRIC DESIGN 3 CR

An introduction to the high end Unigraphics NX design software used by many major industry segments including a review of the advanced capabilities of the software. **Prerequisite:** ETD 263

EMERGENCY MANAGEMENT

EM 103 INTRODUCTION TO EMERGENCY MANAGEMENT 3 CR

This course examines the role of emergency management in today's society. This course will examine the theories, principles and concepts of managing emergencies that impact our communities. The course will address mitigation, preparedness, response and recovery, as well as roles of federal, state and local (public and private) agencies. Analysis and discussion will cover past and present hazards and approaches, and legal issues within the discipline

EM 113 INTRODUCTION TO HAZARD MITIGATION AND PLANNING 3 CR

This course will examine hazards and hazard mitigation planning. The course will examine causes of and resulting behaviors of hazards and the potential for federal, state and local agencies to mitigate the potential threats presented by hazards. The course will also look at coordination of planning responsibilities of emergency managers as they relate to emergency preparedness and the specialty areas that need to be coordinated.

EM 223 RISK ASSESSMENT & VULNERABILITY 3 CR

An adequate hazard, risk and vulnerability (HRV) analysis is the cornerstone of successful disaster management: communities need to be able to identify potential hazards, to determine those hazards most likely to occur, to evaluate vulnerabilities, and to develop mitigative programs in order to reduce the likelihood and consequences of disasters. Developing an effective implementation of the disaster management plan across disciplinary boundaries will be discussed.

EM 253 DISASTER RELIEF & RECOVERY 3 CR

The purpose of this course is to address relief and recovery from disasters that occur. The majority of effort will focus on natural disasters, but planned (e.g., terrorism) and unplanned (e.g., oil tanker spills) will be covered as well. Policies, programs and procedures for managing the relief effort and methods of providing the best return to normalcy will be discussed and assessed. Also covered will be the concept of minimizing the occurrences and damages of recurring future events.

EM 303 NATURAL AND MAN-MADE DISASTERS 3 CR

This course will look at natural and man-made disasters across history. An emphasis will be placed on the capabilities and capacities necessary to respond to these disasters. During the course students will explore the evolution of government (federal, state, local & tribal) response through history, with focus on current response trends. Students will explore the roles and responsibilities of public and private entities in response efforts as well as the costs of the roles and responsibilities.

EM 313 HAZARDOUS MATERIALS OPERATIONS 3 CR

This course will cover the dangers posed by hazardous materials to the operations personnel; to the responders; and to the community. Best practices for storage, transportation and use of hazardous materials are covered. Categories and identification of hazardous materials, as well as state and federal laws regulating hazardous materials will be learned.

EM 323 HAZARDOUS MATERIALS AND WEAPONS OF MASS DESTRUCTION 3 CR

The course will explore the use of chemical, biological, radiological, nuclear and explosive (CBRNE) materials as weapons of mass destruction. Students will take a more in depth look at hazardous materials, particularly those that might be used as a weapon. The historical use of CBRNE materials against humanity will be explored. The coordination between law enforcement, fire, health departments, and hazardous materials teams will be addressed during this course. Capabilities and capacities that might be necessary to respond to an incident involving a hazardous material or CBRNE as a weapon of mass destruction will be discussed. **Prerequisite: EM 313**

EM 333 WORLD TERRORISM 3 CR

This course will examine terrorism around the world and the groups often associated with terrorism. The “lone wolf” as a terrorist will also be explored. Policies and procedures used by countries around the world to prevent and respond to terrorism will be examined. The relative success of these policies and procedures will be evaluated and their potential for implementation in the United States. The course will take up the focus on terrorism in the United States and the consequences this has had on emergency management and the all-hazard approach.

EM 343 INCIDENT MANAGEMENT 3 CR

This course examines the National Incident Management System (NIMS). It explores the five major components of NIMS, preparedness, communications and information management, resource management, command and management and finally ongoing management and maintenance. In particular the course will address command and management and the Incident Command System (ICS). This course will explore both scene management and the interface with multi-agency coordinating groups. The course also addresses management of the multi-agency coordinating groups. The course will explore the difference between disaster management and daily incident management.

EM 353 HAZARDOUS WEATHER/COMMUNITY RISK 3 CR

This course is meant to provide an overview of how weather, climate and natural climatic and geophysical events can create natural disasters for our communities. Threats to human life and property are discussed as well as plans for minimizing the effect of such threats to society. Efforts to control such threats and how to best communicate the danger of the threat will be covered.

EM 363 PUBLIC INFORMATION AND MEDIA 3 CR

This course explores the role of public information in emergency management. The course will address communication with the general public, chief elected officials and senior management, responders, other stakeholders and the media. The course will look at the roles and responsibilities of the various stakeholders in communicating with the various audiences. The role of media in communicating vital information during a disaster will be addressed as well as their impact on response and recovery efforts and public opinion. The role of social media will also be addressed.

EM 383 PREPAREDNESS AND RESPONSE OPERATIONS 3 CR

The purpose of this course is to promote effective disaster response and management. The course will examine the nature of disasters and the roles of various agencies and actors in response to them. The course will also explore various preparedness

strategies that enable more effective disaster response. Past responses will be examined as well as problem solving to propose solutions and improvements that could positively impact future responses. Each student will be expected to gain a solid comprehension of common post-disaster problems as well as effective means of overcoming those challenges and problems.

EM 403 MANAGING CONSEQUENCES OF TERRORISM 3 CR

The history of violence and terrorism, domestic, internationally, and trans-nationally will be reviewed in this course. Hazard analysis, risk assessment and mitigation strategies will be covered. The structure and legal context of anti-terrorism programs, responding to terrorist disasters, and preparedness are all major parts of the course.

EM 423 SOCIAL DIMENSIONS OF DISASTER 3 CR

This course will be an overview of empirical versus theoretical approaches; human behavior in disaster; myths and reality; group disaster behavior; community social systems and disaster; cultures, demographics, and disaster behavior distinctions; and model-building in sociological disaster research.

EM 453 EMERGENCY MANAGEMENT CAPSTONE 3 CR

This course is an overview of the emergency management core courses and will pull the theories, concepts and practices of EM together. Students in this course will work collaboratively to solve simulated disasters in a way that produces the most desirable outcomes to all citizens affected by the simulated disasters. Recovery operations will be stressed. **Prerequisite: All required course work in the emergency management core.**

ENGLISH

ENG 103 ENGLISH COMPOSITION I 3 CR

Intensive training in methods of exposition leading to the ability to write coherent, clear, and persuasive essays.

ENG 113 ENGLISH COMPOSITION II 3 CR

Continuation of ENG 103. Concentration on research paper and library methods. **Prerequisite: ENG 103 or ENG 104**

ENG 133 TECHNICAL COMMUNICATION 3 CR

Emphasizes clear writing and oral communication in professional situations for technical fields. Concentration on project-oriented instruction, which includes creating technical documents (email, reports, proposals, instructions, et.al.) and adapting them to specific audiences and tasks. **Prerequisite: ENG 103 or ENG 104**

ENG 153 INTRODUCTION TO LITERATURE 3 CR

Introduces the student to literature of some complexity and sophistication, developing a critical vocabulary and skills in reading on an advanced level. Analysis of genre: short fiction, poetry, and drama.

ENG 204 BRITISH LITERATURE 4 CR

A survey of British literature to the present. **Prerequisite: ENG 153**

ENG 212 MYTHOLOGY 2 CR

An introduction to world mythology, with emphasis on Greek and Roman legends. **Prerequisite: ENG 153**

ENG 214 AMERICAN LITERATURE 4 CR

A survey of American literature to the present. **Prerequisite: ENG 153**

ENG 253 READINGS IN WORLD LITERATURE 3 CR

Readings in selected major works which have influenced thought and culture. Selections may be drawn from (but not limited to) such writers as Dante, Juvenal, Confucius, Montaigne, Rabelais, Cervantes, Moliere, Goethe, and Dostoyevsky. **Prerequisite: ENG 153**

ENG 263 CONTEMPORARY THEMES IN LITERATURE 3 CR

A critical study of works of literature selected for their relevancy to current social, ethnic, minority, and ethical problems. Special emphasis placed upon minority writers. **Prerequisite:** ENG 153

ENG 323 RESTORATION AND EIGHTEENTH CENTURY LITERATURE 3 CR

A study of literature from 1660-1798. Authors studied include Moliere and Restoration playwrights, Swift, Pope, Voltaire, Dr. Johnson, and others. **Prerequisite:** ENG 153

ENG 333 STUDIES IN LITERATURE 3 CR

Study of selected authors and topics. May be repeated for credit so long as course content is not substantially duplicated. **Prerequisite:** ENG 153

ENG 363 THE ENGLISH LANGUAGE 3 CR

A systematic study of the development of the English language from its medieval beginnings; some consideration of contemporary dialectic and semantic differences; work with etymology. **Prerequisite:** ENG 113

ENG 403 BRITISH AND AMERICAN NOVELS I 3 CR

A chronological study of the major thematic and structural developments in the novel from its beginnings to the 21st century. Social commentary and satire on classes, monarchy, empire, war, education, religion, marriage, middle class morality. **Prerequisite:** ENG 153

ENG 423 DRAMA 3 CR

Studies of selected playwrights, movements, trends, and developments in world drama from the beginnings to the present day. **Prerequisite:** ENG 153

ENG 433 SHAKESPEARE AND HIS TIMES 3 CR

The close reading of at least eight plays by Shakespeare. Discussion of his life and times, the sonnets, his themes, and the differences between texts and productions. **Prerequisite:** ENG 153

ENG 443 POETRY 3 CR

An investigation of the poetic process through the careful examination of selected poems and statements about poetry. **Prerequisite:** ENG 153

ENG 463 CREATIVE WRITING 3 CR

Directed experiments in the original composition of literary essays, plays, short stories, longer narratives, or poems. **Prerequisites:** ENG 113, ENG 153

ENG 400X DIRECTED STUDIES IN ENGLISH VARIES (1-3 HRS.)

For senior students of superior ability able to assume a larger share of the responsibility for designing and pursuing a reading research project which is academically respectable. **Prerequisite:** Permission of Department Chair

ENG 401X CAPSTONE STUDY IN ENGLISH (1-4 HRS)

A capstone course for students who plan to enter law or graduate school and who are capable of writing a polished, academically significant research paper in the field of English. **Prerequisite:** Permission of Department Chair

ENTREPRENEURSHIP

ENT 303 ENTREPRENEURIAL LEADERSHIP 3 CR

This course examines leadership, influence, and power as it relates to entrepreneurship with a strong emphasis on entrepreneurial character traits and business ethics. Historical, literary, and contemporary examples of successful entrepreneurs provide a framework for examining the theories of leadership and power.

ENT 313 BUSINESS CONCEPTS (FOR NON-BUSINESS MAJORS) 3 CR

A survey course designed to introduce non-business majors to business issues and practices. All major functions of business are included (management, marketing, law, finance, economics, operations, accounting, information technology) as well as issues facing the business person (ethics, globalization, motivation, etc.). Not open to students enrolled in the business programs.

ENT 323 ENGINEERING CONCEPTS (FOR NON-ENGINEERING MAJORS) 3 CR

Fundamental engineering concepts are introduced, with an emphasis on developing foundations for lifelong learning of technological issues. Broad-based technologies and the importance of technical communication are emphasized. Current and future technologies are discussed by visiting practitioners. Not open to students enrolled in the engineering and technology programs.

ENT 333 ENTREPRENEURSHIP SEMINAR SERIES 3 CR

Through case studies, simulations, guest lectures, and reading, students become aware of legal business structures, legal issues related to emerging ventures (patents, copyrights, trademarks, licensing, franchising, employment law, etc.), venture financing, and venture marketing. **Prerequisite: ENT 313 or 323**

ENT 413 CREATIVITY–PRODUCT/SERVICE DEVELOPMENT 3 CR

This course explores the nature of creativity from four interacting viewpoints: person, process, product, and environment. Its goal is to develop students' awareness of their creative potential. Activities include group work, discussion, and the development of an idea or invention. **Prerequisite: BA 123 or ENT 313**

ENT 423 ENTREPRENEURSHIP & VENTURE PLANNING 3 CR

This course focuses on entrepreneurship and small business management. Through case studies, simulations, guest lectures, reading and business plan development, students become aware of the unique challenges facing small business owners and entrepreneurs. Students become familiar with the resources available to small business owners by developing and presenting a business start-up plan. **Prerequisite: ENT 413**

ENT 463 INTERNSHIP (3 CR)

Students will be assigned to a real world new venture, small business, or corporate new product development department to gain experience in the art and science of entrepreneurial/intrapreneurial thinking, problem solving, and decision making. The term of the internship will vary depending on the nature of the position and responsibilities. Ideally, students will be assigned the internship during the summer between their junior and senior year. **Prerequisite: Junior Standing**

ENGINEERING SCIENCE

ES 213 STATICS 3 CR

The first course in engineering mechanics. Subjects cover includes; force and moment vectors, equivalent systems, trusses, frames, and machines, equilibrium of particles and rigid bodies, static friction, centroids and moments of inertia.

Corequisite: PH 224, MA 164

ES 223 DYNAMICS 3 CR

Kinematics of absolute and relative motion of particles and rigid bodies. Subjects include; kinetics of particles and particle systems. Principles of work and energy, impulse and momentum, and impact. Kinetics of rigid bodies in plane motion.

Prerequisite: Grade of C or better in ES 213, MA 164 and PH 224

ES 233 ENGINEERING MATERIALS 3 CR

A study of the structure and properties of materials. Materials covered include metals, ceramics, polymers, and composites. Mechanical properties are emphasized, electrical properties, thermal properties, and environmental interactions are addressed. Structural features at the atomistic level, the crystal structure level, and the microstructure level of single and polyphase materials are studied in terms of their effects on material properties. **Prerequisite: CH 104; Corequisite: PH 224**

ES 243 SOLID MECHANICS 3 CR

Concepts of stress and strain in engineering materials. Subjects include; Hooke's law and Poisson's relationship, analysis of axial, shear, flexural, and torsional stresses, combined stress, shear and moment distribution in beams, and deformation of structural members. **Prerequisite: Grade of C or better in ES 213**

ES 253 ELECTRICAL SCIENCE 3 CR

Basic voltage-current-energy relationships in circuit elements. Fundamental circuit laws. Resistive networks and network theorems. Sinusoidal steady-state response and phasors. Power and energy in AC circuits. **Prerequisites: MA 134, PH 224**

ES 313 THERMODYNAMICS 3 CR

Introduction to properties of substances and ideal gases by use of tables. Introduction to thermodynamic concepts of systems, control volumes, heat, work and internal energy. Formulation of the First and Second Laws of Thermodynamics with engineering applications, Vapor Water Systems Rankine cycle, First and Second Law analysis of power plant cycles.

Prerequisites: Grade of "C" or better in MA 164, PH 224, and ES 213

ES 323 FLUID MECHANICS 3 CR

Fundamental properties of fluids. Fluid statics. Kinematics of fluid motion. Conservation of mass, energy and momentum as applied to compressible and incompressible fluids. Similitude. Introduction to laminar and turbulent boundary layers.

Prerequisite: ES 213; Co-requisite: MA 213

ES 382 ENGINEERING ECONOMICS 2 CR

An introduction to the economics component of design and problem solving. Application of economic concepts from present and future value of money, depreciation, and taxes to problems involving replacement studies and selection between alternative uses of capital. Methods include equivalent worth, rate of return, and incremental techniques.

ENGINEERING TECHNOLOGY

ETD 103 BASIC TECHNICAL DRAWING 3 CR

A course in the fundamentals of drafting. Use of instruments and materials, lettering and techniques of penciling. Primary emphasis is on shape and size description of three-dimensional objects. Preparation of drawings for various reproduction processes. Application of drawing geometry and study of sections and conventional practices.

ETD 113 GEOMETRIC DIMENSIONING AND TOLERANCING 3 CR

Introduction to geometric dimensioning and tolerancing including advanced applications of dimensioning principles, tolerances and precision dimensioning. Introduction to part measurement techniques as it relates to geometric dimensioning and tolerancing.

Prerequisite: ETD 103

ETD 123 MANUFACTURING MATERIALS AND PROCESSES 3 CR

Physical properties of ferrous and nonferrous materials, such as wood products, plastics, and rubber. Heat treating and testing of metals. Industrial practice in the working of metals and plastics. Fundamentals of metallurgy, machining, casting, welding and forming.

ETD 143 DESCRIPTIVE GEOMETRY 3 CR

Introduction to the principles of multi-view drawings and the solutions of space problems. Methods for solution of point, line and plane problems, and the angle between planes, parallelism and perpendicularity, revolution, intersection and development problems. **Prerequisite: ETD 103**

ETD 163 ENVIRONMENTAL HEALTH AND SAFETY 3 CR

This introductory level course investigates safety philosophy and the principles of safety. The student will study occupational safety and industrial hazard control with a focus on the basic principles of accident prevention. The analysis of safety performance, cost and identification of accident potential is also studies. Emphasis is placed on concepts and techniques proven useful in reducing accidents and injuries. **(Equivalent to HR 323)**

ETD 173 COMPUTER AIDED 3-D MODELING 3 CR

An introductory course which studies the concept of parametric modeling and its application in industry. In this course students will learn the fundamentals of 3D parametric modeling, detail drawing creation, and assembly modeling using industry standard parametric modeling software. **Prerequisite: ETD 103 or EGR 143**

ETD 203 BASIC MECHANISMS 3 CR

Introduction to simple mechanisms and their kinematics. Study of linkages, cams, gearing, and belts.

Prerequisites: PH 154, MA 123

ETD 233 ENGINEERING & MANUFACTURING SYSTEMS 3 CR

A study of engineering and manufacturing systems such as engineering documentation systems, design control and lean manufacturing technologies. **Prerequisites: ETD 173**

ETD 243 STATICS AND STRENGTH OF MATERIALS 3 CR

Principles of statics, analysis of structures, graphic methods, and friction as applied to the inclined plane and wedge. Simple direct and combined stresses, determination of structural sizes as function of unit stress, and physical properties of the materials.

Prerequisites: MA 123

ETD 253 DIMENSIONAL METROLOGY 3 CR

Emphasis on methods and principles of measuring basic physical qualities for inspection and quality control. Laboratory work in measuring physical variables such as size, flatness, circularity, and total run-out. An introduction and project work in related areas, such as reverse engineering, functional gauge design, and statistical process control.

Prerequisites: ETD 113, ETD 123, ETD 173

ETD 263 DESIGN, ANALYSIS, AND PROTOTYPING 3 CR

The use of the CAD system as an engineering tool for the presentation of engineering problem solving. The set-up and maintenance of CAD systems. A study of the advanced techniques that are available on typical CAD systems and their applications in industrial systems. **Prerequisite: ETD 233**

ETD 273 ELECTRICAL FUNDAMENTALS 3 CR

Electrical circuit principles. Basic circuit laws, motors, generators, controls, distribution systems, and electrical codes are presented. Theory of electricity and magnetism, electrical phenomena, and measurements. Circuits, power, AC phenomena, capacitance, and conduction are studied. **Prerequisites: PH 154**

ETD 293 INTRODUCTION TO COMPUTER NUMERICAL CONTROL PRINCIPLES 3 CR

History of numerical control and comparison with conventional machining systems. Standard coding system and control terminology. **Prerequisites: ETD 123, ETD 173**

ETD 323 PRODUCT DESIGN AND DEVELOPMENT 3 CR

Introduction to product analysis, development and design. Conceptual design, design for manufacture, reverse engineering, concurrent engineering, designing for special needs, prototyping, and product safety. Integration of previous work into complete product design project. **Prerequisite:** ETD 233

ETD 363 ELEMENTS OF MACHINES 3 CR

Design principles and calculations of machine elements. Consideration of economy, loads, stresses, deformations, and environment. **Prerequisite:** ETD 243, PH 154

ETD 423 SENIOR DESIGN PROJECT 3 CR

Study of advanced design methods as used in engineering design. A study of the design process as practiced in the industrial setting. The procedures used from the start of a design until its final production including presentations and design reports. **Prerequisites:** ETD 263, ETD 323

ETD 433 COMPUTER NUMERICAL CONTROL PRINCIPLES 3 CR

History of numerical control and comparison with conventional machining systems. Standard coding system and control terminology. **Prerequisites:** ETD 123, ETD 263

FINANCE

FIN 303 MANAGERIAL FINANCE 3 CR

This course is a study of the principles of managerial finance including time value of money, capital budgeting, methods of financing, working capital management, financial statement analysis, and other financial topics. **Prerequisites:** AC 213, ECO 213, ECO 223, MA 253, or permission of the instructor

FIN 313 CORPORATE FINANCE 3 CR

An analytical approach to financial management of a corporation. Areas covered include: long term financing, financial structure, cost of capital, dividend policy, mergers, reorganization, and international financial management. **Prerequisite:** FIN 303

FIN 323 MONEY AND BANKING 3 CR

This course is a study of the principles of monetary economics. An analysis of the structure and operation of financial institutions and the Federal Reserve System is included. The function of monetary policy within the framework of macroeconomic theory is examined. **Prerequisite:** ECO 223 (Same as ECO 323)

FIN 333 PUBLIC FINANCE 3 CR

This course involves an investigation of the role of the public sector in economic development. Fiscal policy and the practice of public finance are examined. Topics cover cost functions for public goods, externalities, and fiscal federalism. **Prerequisite:** ECO 223 (Same as ECO 333)

FIN 343 INTERNATIONAL FINANCE 3 CR

This course involves a study of the topics essential to the understanding of international finance. Topics include foreign exchange markets and currency risk, international financial markets, international banking, trade financing, country risk analysis, accounting and taxation issues, capital budgeting, and international lending, and borrowing techniques. **Prerequisite:** FIN 303

FIN 353 PERSONAL FINANCE 3 CR

An overview of financing decisions made by individual investors for personal financial needs. The course will cover pension investing, tax considerations, retirement planning, and various investment products available to investors. **Prerequisite:** MA 103

FIN 363 VENTURE FINANCING 3 CR

This course examines the venture financing options available for new business startups; emphasizes creating and analyzing financial documents, approaching financial sources, assessing the financing alternatives, selling stock for growing companies, the capital structure decision and managing the financial condition of a new venture. **Prerequisite: FIN 303**

FIN 373 FINANCE TECHNOLOGIES 3 CR

This course is a study of the principles of managerial finance, investments, and other topics relevant to the field of finance. Students explore how to use technologies, such as Excel, WINKS, and others to solve financial problems. **Prerequisites: INF 113, FIN 303**

FIN 403 INVESTMENTS 3 CR

An overview of the security markets, sources of investment information, and the classic process of analyzing and valuing securities is presented. Investment opportunities in a wide variety of financial and real assets are explored. The concept of portfolio theory in terms of risk and return is examined. **Prerequisite: FIN 303**

FIN 493 TOPICS IN FINANCE 3 CR

Offered to examine specific or current business or special financial issues. Possible examples could include asset management, corporate financing, securities analysis and management of financial institutions. **Prerequisite: FIN 303**

FIN 503 FINANCIAL ANALYSIS FOR DECISION MAKING 3 CR

This course reviews the economic and organizational context in which resource allocation decisions are made. Primary tools to be used include spreadsheet analysis, financial simulation, and case studies. Topics to be included are: the capital expenditure decision process, reviewing capital investment projects, capital expenditures, EVA, lease-versus-buy decisions and cash flow analysis. **Prerequisite: Graduate standing or approval of instructor**

FILM

FLM 202 FILM APPRECIATION 2 CR

Acquaints the student with the art of film criticism. Presents basic cinema vocabulary, information about film production, theory and history of film, and practice in analysis of individual films.

GENERAL ENGINEERING

GE 101 INTRODUCTION TO ENGINEERING 1 CR

This course is required for all freshman engineering students. Its purpose is to improve student success, to make the college experience more relevant to career goals, and to help students obtain as much assistance from the University as possible while working towards their engineering degrees. The course will cover community building, academic goals, effective learning methods, University orientation, and personal and professional development.

GE 401 PROFESSIONAL PRACTICE 1 CR

This course covers the two broad areas of professional practice. The first consists of topics pertinent to career aspects of the profession: job search activities, graduate school information, lifelong learning, professional registration, and the role of professional societies. The second area concerns the social responsibilities of the practicing professional engineer: professional ethics, the role of engineering in public policy, the need for knowledge of current affairs, and consideration of the impact of technology upon society. **Prerequisite: Senior standing in engineering**

GEOGRAPHY

GEO 203 OCEANOGRAPHY 3 CR

A description of the oceans and their relation to humans. The principles of physical, chemical, geological, and biological oceanography are used to explain the ocean environment. Society's effect on the oceans and problems and potentials of utilizing the natural resources of the sea. **Prerequisites: A laboratory science and MA 113 (Same as EAS 203 and BIO 203)**

GEO 213 PHYSICAL GEOGRAPHY 3 CR

An analysis of the spatial and functional relationships among landforms, climates, soils, water, and the living world. This course also addresses the connections between environmental processes and human activity, such as human impact on the environment. **(Same as EAS 213)**

GEO 303 HUMAN GEOGRAPHY 3 CR

Topical studies to show how human beings have altered and adapted to their physical environments over time through technology, migration, and demographic changes. Focus is on cultural identity and landscape, cultural interaction, and conflict. **Prerequisite: Junior standing or permission of instructor**

GEO 313 GEOGRAPHY OF NORTH AMERICA 3 CR

A regional approach to the United States and Canada. An in-depth look at economic, political, historical, and cultural developments in the content of the physical environment. Focus on the present and the future of each region, as well as how those futures are intertwined. Global context is also considered. **Prerequisite: Junior standing or permission of instructor**

GEO 323 WORLD GEOGRAPHY 3 CR

A study of the major cultural regions of the world, with emphasis on human social development (economic, cultural, historical, political), in the context of a given physical environment. Focus is on the present and future of each region, as well as how those futures are intertwined. **Prerequisite: GEO 303**

GEO 343 ECONOMIC GEOGRAPHY 3 CR

A spatial approach to economics, the course considers historical, present and future economic activities, developments, and trends, in a global context, with the goal of answering the two basic questions of geography: "where?" and "why there?" **Prerequisite: ECO 223 (Same as ECO 343)**

GEO 353 POLITICAL GEOGRAPHY 3 CR

The politics of place. A review of the basic concepts and principles of geopolitics, designed to help students understand the connections between place and political decision-making. The course explores the applications of these concepts using past and present world events, as well as projecting possible futures. **Prerequisite: GOV 113 (Same as GOV 353)**

GEO 400X INDEPENDENT STUDIES IN GEOGRAPHY VARIES(1-4 HRS.)

Credit earned through directed reading, independent study, research or supervised field work. Maximum four hours credit. **Prerequisite: Permission of Department Chair**

GEOLOGY

GLY 271 GEOLOGY LABORATORY 1 CR

An introductory laboratory study of basic physical geology. The laboratory emphasizes skills needed for the identification of minerals and rocks, for the interpretation of land surface features based on topographic maps and for the understanding of folding, faulting, and rock relationships through the interpretation of geologic maps. **Co requisite or Prerequisite: GLY 273**

GLY 273 GEOLOGY 3 CR

An introduction to the field of geology. Study of minerals and rocks and their formation within the context of the earth's geologic history. Emphasis on soils, running water, and groundwater. Plate tectonics, glaciers, volcanoes, erosion, and weathering are also covered. **(Same as EAS 273)**

GOVERNMENT

GOV 113 INTRODUCTION TO GOVERNMENT 3 CR

An examination of the origins and operations of the national political machinery; the development, functions and philosophy of political parties; the problems and tasks of leading governmental agencies.

GOV 313 COMPARATIVE GOVERNMENTS 3 CR

A comparison of the systems, philosophies and functions of the governments of England, France, the United States, Germany and the countries of the former Soviet Union. **Prerequisite: GOV 113**

GOV 323 THE CONTEMPORARY WORLD 3 CR

An analysis of current global issues from a historical perspective with an emphasis on developing an awareness of cultural diversity and an understanding of the role of international governmental and nongovernmental organizations. **Prerequisites: GOV 113 or HIS 113 (Same as HIS 323)**

GOV 333 STATE AND LOCAL GOVERNMENT 3 CR

The general relationship between the states and the federal government; organization, functions, and divisions of authority between the executive, legislative and judicial. The functions, powers, and forms of county and municipal governments. **Prerequisite: GOV 113**

GOV 343 AMERICAN POLITICAL THOUGHT 3 CR

A survey and analysis of significant political ideas from colonial times to present. Some of the ideas discussed in the survey include the philosophies of liberalism, conservatism, and pragmatism, as well as the political thinking of such men as Alexander Hamilton, Thomas Jefferson, John C. Calhoun, Henry Thoreau, Herbert Spencer and Lester Ward. **Prerequisite: GOV 113 (Same as HIS 343)**

GOV 353 POLITICAL GEOGRAPHY 3 CR

The politics of place. A review of the basic concepts and principles of geopolitics, designed to help students understand the connections between place and political decision-making. The course explores the applications of these concepts using past and present world events, as well as projecting possible futures. **Prerequisite: GOV 113 (Same as GEO 353)**

GOV 363 UNITED STATES FOREIGN POLICY 3 CR

A history of United States involvement in world affairs from the War for Independence to the present; the close relationship between the foreign policy and domestic concerns is emphasized; an analysis of the policy-making bureaucracy. **Prerequisites: HIS 103, HIS 113, or GOV 113 (Same as HIS 363)**

GOV 373 POLITICAL PSYCHOLOGY 3 CR

An examination of the role of group dynamics and personality variables in contemporary political issues, including leadership and power, political attitudes, current social movements, conflict resolution, coalition formation, cross-cultural comparison of political attitudes and other issues. **Prerequisites: PSY 113 or GOV 113 (Same as PSY 373)**

GOV 403 AMERICAN CONSTITUTIONAL DEVELOPMENT 3 CR

A study of the historical and judicial developments of the Constitution of the United States by analyzing court decisions and the philosophies of the justices of the Supreme Court. Emphasis on the court's role in the development of national economic policy, with a focus on the court's position on civil rights and liberties, political freedom and social equality. **Prerequisites: HIS 103, HIS 113, GOV 113 (Same as HIS 403)**

GOV 400X INDEPENDENT STUDIES IN GOVERNMENT VARIES (1-4 HRS.)

Credit earned through directed reading, independent study, research or supervised field work. Maximum 4 hours credit.

Prerequisite: Permission of Department Chair

GENERAL STUDIES

GS 4003 SENIOR CAPSTONE PROJECT 3 CR

The capstone project will give students the opportunity to demonstrate the integration of the two to three academic programs they have chosen for the self-directed concentration. The project will include an oral and written presentation encapsulating the rationale for the programs selected and the nature of the relationship between them.

HEALTHCARE MANAGEMENT

HC 303 HISTORY OF AMERICAN HEALTHCARE 3 CR

This course is an introductory course in healthcare management. The course will present the history of healthcare systems in America from the late 1800's through the present day. Emphasis will be placed on an understanding of key historical forces which have shaped new millennium models of the American healthcare delivery system.

HC 333 MANAGEMENT TECHNIQUES & PRINCIPLES 3 CR

This course will offer a variety of industrial management techniques applicable to department-level projects within a healthcare facility. The course will incorporate projects and statistical analysis of current operations. Hospital ancillary support departments as well as direct patient care departments will be reviewed. Recommendations for improvement will be derived from the analysis of workflow data and other internal information sources. The course addresses the overall management of a healthcare facility and explores issues such as how to determine what is broken in the organization, prioritization of changes or improvements, long-term impact of current problems, and response strategies to internal and external forces. **Prerequisite:** MA 253

HC 403 PROGRAM AND FACILITIES MANAGEMENT 3 CR

In this course, the student will study and analyze future program options related to healthcare facilities. Management of healthcare facilities will be studied. Analysis of current programs and facilities and the potential need for programs and/or facilities expansion will be covered. Strategic long-range and tactical short-range planning will be an integral part of this course and will cover both program and facilities planning topics. **Prerequisite:** MA 253

HC 413 HEALTH CARE ACCOUNTING 3 CR

This course introduces the student to accounting specifically related to the health care industry. Audit procedures, insurance (including Medicare and Medicaid) reimbursement, fund accounting, government and grant accounting are also covered. This course uses computer applications. **Prerequisite:** AC 213

HC 423 HEALTH CARE FINANCE 3 CR

An analytical approach to financial management of a corporation. Areas covered include: Operating and capital budgets, capital purchases, cost benefit analysis and break-even analysis, financial statement analysis and the financing of facilities. The course is considered the second course and continuation of Managerial Finance with a specialization in health care issues. **Prerequisite:** FIN 303, HC 413

HC 443 HEALTHCARE DELIVERY SYSTEMS 3 CR

This course will evaluate and describe various financing mechanisms available within the healthcare industry. Issues related to insurance and managed care will be explored. The ongoing problem of healthcare availability and accessibility in the United States will be reviewed. The impact of economics, national health status statistics and public policy legislation affecting the U.S. healthcare system will be discussed. A research paper related to the current status of the healthcare delivery system of a foreign country will be required.

HC 453 HEALTHCARE MANAGEMENT CAPSTONE 3 CR

This course will be a culmination of the Healthcare Management core. A comprehensive research project dealing with a healthcare related case study will be undertaken and presented by the student. The project will include written and oral presentations of the research findings. **Prerequisite: All other courses in the HCM core should be taken prior to this course.**

HC 483 PROGRAM AND FACILITIES MANAGEMENT 3 CR

This course is the culmination of the Health Care Management core and serves as the capstone course. In this course, the student will study and analyze future program options related to healthcare facilities. Management of health care facilities will be studied. Analysis of current programs and facilities and the potential need for programs and/or facilities expansion will be covered. Strategic long-range and tactical short-range planning will be an integral part of this course and will cover both program and facilities planning topics. A comprehensive research project dealing with a health care related case study will be undertaken and presented by the student. The project will include written and oral presentations of the research findings. **Prerequisites: All other courses in the Health Care Management core should be taken prior to this course.**

HISTORY

HIS 103 AMERICAN HISTORY I 3 CR

Traces the major trends in the history of the United States from colonial times to the end of Reconstruction. Concentrates upon the diplomatic, political, economic, intellectual, and cultural achievements of the American nation, set within the larger framework of the European world.

HIS 113 AMERICAN HISTORY II 3 CR

Increasing emphasis on the post Civil War industrial development of the United States and its subsequent role as a great world power to present.

HIS 203 WORLD CIVILIZATION I 3 CR

A historical review of human civilization from prehistoric times through the Renaissance. The class focuses upon the political, economic, and cultural achievements of various civilizations of the world.

HIS 213 WORLD CIVILIZATION II 3 CR

A survey of major civilizations of the world in the post-Renaissance period, including Asian, African, and Western European civilizations in the areas of politics, economics, and scientific, and cultural developments. Emphasis is placed on the increasing interdependence of world civilizations and people.

HIS 251 ANCIENT GREECE FROM THE PERSIAN THROUGH PELOPONNESIAN WARS 1 CR

An examination of the culture of Athens and Sparta during the 5th century B.C., concentrating on the Persian and Peloponnesian wars and their lasting effects on Western Civilization. **(Same as PHL 251)**

HIS 253 THE JAPANESE PEOPLE 3 CR

A humanistic approach to the study of the Japanese people. An emphasis on using a historical context to reveal domestic political, social, and economic associations, as well as important achievements in literature, religion, philosophy and art.

HIS 323 THE CONTEMPORARY WORLD 3 CR

An analysis of current global issues from a historical perspective with an emphasis on developing an awareness of cultural diversity and an understanding of the role of international governmental and nongovernmental organizations. **Prerequisite: GOV 113 or HIS 113 (Same as GOV 323)**

HIS 343 AMERICAN POLITICAL THOUGHT 3 CR

A survey and analysis of significant political ideas from colonial times to the present. Some of the ideas discussed in the survey include the philosophies of liberalism, conservatism, and pragmatism, as well as the political thinking of such men as Alexander Hamilton, Thomas Jefferson, John C. Calhoun, Henry Thoreau, Herbert Spencer, and Lester Ward. **Prerequisite: GOV 113 (Same as GOV 343)**

HIS 363 UNITED STATES FOREIGN POLICY 3 CR

A history of the United States involvement in world affairs from the War of Independence to the present, the close relationship between the foreign policy and domestic concerns is emphasized; an analysis of the policymaking bureaucracy. **Prerequisites: HIS 103, HIS 113, or GOV 113 (Same as GOV 363)**

HIS 393 ECONOMIC HISTORY OF THE UNITED STATES 3 CR

A survey of major economic developments in American history. Stresses the changed conditions and values in moving from an agricultural to an industrial society. **Prerequisites: HIS 103, HIS 113 (Same as ECO 393)**

HIS 403 AMERICAN CONSTITUTIONAL DEVELOPMENT 3 CR

A study of the historical and judicial developments of the Constitution of the United States by analyzing court decisions and the philosophies of the justices of the Supreme Court. Emphasis on the court's role in the development of national economic policy, with a focus on the court's position on civil rights and liberties, political freedom, and social equality. **Prerequisites: HIS 103, HIS 113, GOV 113 (Same as GOV 403)**

HIS 423 THE UNITED STATES AS A WORLD POWER 3 CR

A study of social, economic, intellectual, and political developments within the United States from approximately 1939 to the present. Emphasis is placed on relating America's developments to its role in international affairs. **Prerequisite: HIS 113**

HIS 433 THE AMERICAN REVOLUTION 3 CR

A history of the War of Independence and the formation of national government to 1787. **Prerequisite: HIS 103**

HIS 443 READINGS IN AMERICAN HISTORY 3 CR

An independent study and research on selected topics in American History. **Prerequisite: Junior standing or permission of instructor**

HIS 453 READINGS IN WORLD HISTORY 3 CR

An independent study and research on selected topics in World History. **Prerequisite: Junior standing or permission of instructor**

HIS 400X INDEPENDENT STUDIES IN HISTORY VARIES (1-4 HRS.)

Credit earned through directed reading, independent study, research, or supervised field work. Maximum 4 hours credit. **Prerequisite: Permission of Department Chair**

HOSPITALITY and TOURISM MANAGEMENT

HOS 103 CURRENT TRENDS IN TOURISM 3 CR

The objective of this class is to look at the research, stats, and current trends as they relate to the Tourism Industry. Upon examination of the research, the class will discuss how the industry continues to adapt to meet the ever changing demands of the public.

HOS 203 LODGING MANAGEMENT 3 CR

The objectives of this class are to examine the policies, techniques and trends in hotel administration from a front office perspective. Topics such as organization, ethics, procedures, and communication amongst the hotel staff and with the hotel guest will be examined.

HOS 213 SOPHOMORE INTERNSHIP IN HOSPITALITY MANAGEMENT 3 HRS

This sophomore experience is the first of two internships required for a Hospitality Management major. This field related experience is under the direction of a field supervisor and University supervisor. The Internship must have the approval of the Department Chair.

HOS 303 HOSPITALITY AND TOURISM MARKETING 3 CR

The objective of this class is to provide the student with an understanding of the techniques used to market the many facets of the hospitality and tourism industry. Packaging pricing, promoting, advertising and merchandising will all be explored as they relate to restaurant sales, hotel occupancy, and the travel and tourism industry. **Prerequisite: Junior standing or permission of instructor**

HOS 313 CATERING 3 CR

The objective of this class is look at catering from a business perspective including pricing, production, promoting, packaging, and customer service. **Prerequisite: Junior standing or permission of instructor**

HOS 322 MEETING AND EVENT PLANNING 2 CR

This class looks at meeting and event planning from an organizational and administration perspective. Customer service as it relates to meeting the needs of the client will be examined. The culminating projects of this class are the creation of a event planning resource notebook and the class project of putting on a “campus event”. **Prerequisite: Junior standing or permission of instructor**

HOS 402 BEVERAGE MANAGEMENT 2 CR

The objective of this class is to give the student an education in the purchasing, storing, serving, and production of alcoholic and non-alcoholic beverages. **Prerequisites: a hospitality management major and 21 years of age**

HOS 404 QUALITY FOOD PREPARATION 4 CR

The class will examine food preparation methods and service techniques important to the success of a food service operation. Menu planning, food preparation and production along with proper food service methods will be studied. A basic knowledge of food service operations will be taught in a lab setting through the production of a “A Night out on the Town”. Student will exhibit their skills by performing a variety of tasks in a cooperative environment as they produce a dining experience to the general public. **Prerequisite: Junior standing or permission of instructor**

HOS 413 CASINO, SPA, AND RESORT MANAGEMENT 3 CR

This class examines the day to day operations of casinos, spas, and resorts from a front office perspective including the law, procedures, and organizational structure. This class incorporates both classroom and field experiences to give the student the necessary perspective of how these facilities become successful. **Prerequisite: Junior standing or permission of instructor**

HOS 423 SANITATION AND HEALTH IN THE FOOD SERVICE, LODGING, AND TOURISM INDUSTRY 3 CR

This class will discuss food safety and other health related issues common to the Hospitality Industry, and other institutional programs like hospitals, schools, restaurants, cruise ships, airlines, and other form of travel. Students must pass a National Sanitation Certification examination upon completion of the course. **Prerequisite: Junior standing or permission of instructor**

HOS 473 SENIOR INTERNSHIP IN HOSPITALITY MANAGEMENT 3 CR

This internship experience is of great importance to the Hospitality Management major because it comes at a time where the student has through their classroom experiences at Trine University, gained a knowledge of the hospitality and tourism industry, and now goes out into the field to compliment their knowledge of the subject. **Prerequisite: Junior standing or permission of instructor**

HEALTH AND PHYSICAL EDUCATION

HPE 131 FIRST AID 1 CR

Classroom discussion and practical application of basic first aid principles. American Red Cross certification available.

HPE 253 RISK MANAGEMENT 3 CR

Consideration of the legal aspects involved with physical education and sport activities. Emphasis on negligence case law, liability issues and facility safety.

HPE 273 NUTRITION 3 CR

A review of the nature of nutritional needs. Focus will include the function of nutrients in the body, weight control and the importance of balanced diets.

HPE 313 PRINCIPLES OF SPORT AND RECREATION 3 CR

A study of the management, marketing, financial and legal principles within a sports and recreation operation and the primary components and support structures of the industry. The purpose is to examine and gain an understanding of all facets of running a team or sporting organization. A significant research project will be due at the end of the course.

HUMAN RESOURCE MANAGEMENT

HR 303 COMPENSATION AND BENEFITS 3 CR

This course examines the role of compensation and benefits in today's workplace. It emphasizes the role, importance, and impact of a defined compensation and benefits strategy. Emphasis will be on assessment of compensation and benefit plans. Topics include traditional and non-traditional bases of pay, strategies for developing benefits plans, administering compensation, and benefit plans. **Prerequisite: FIN 303**

HR 313 TRAINING AND DEVELOPMENT 3 CR

Provides a review of the field of training and development, including topics such as adult learning theory, training needs assessment, the design, delivery and evaluation of training and development programs, career development, and e-learning. **Prerequisite: MGT 313**

HR 323 SAFETY AND HEALTH MANAGEMENT 3 CR

This course examines the role of occupational safety and health in the workplace today. It emphasizes the need for and the impact of having a strong safety and health program. Topics include identification and assessment of major types of occupational hazards including falls, mechanical, environmental, electrical, fire, weather, and stress. OSHA regulations, fines and authority, safety standards, accident prevention and investigation, safety and analysis, and safety and health management concepts are also covered. **Prerequisite: MGT 313 (Equivalent to ETD 163)**

HR 403 PROJECT MANAGEMENT 3 CR

A study of effective project planning and management. Topics covered include project goals, objectives, and feasibility. Estimation of completion times and costs, evaluation and review, incentives, and quantitative analysis are also topics. Case studies and project management software used extensively. **Prerequisite HR 323**

INFORMATICS

INF 103 INFORMATION TECHNOLOGY APPLICATIONS 3 CR

Terminology, concepts, principles, and use of computer in solutions of business, scientific and educational decision-making problems. Introduction to system structures, storage media, peripheral equipment, communications and Web development.

Emphasis on topics in human-computer interaction and human factors, collaborative technologies, ethics, privacy, and ownership of information and information sources, information representation and the information life cycle, the transformation of data to information. Hands on assignments: Word Processing, Spreadsheet Analysis, Database, Presentation Graphics, and collaboration software. **Prerequisite: Computer Literacy**

INF 113 BUSINESS COMPUTER APPLICATIONS 3 CR

This course emphasizes predominant software packages in word processing, spreadsheets, presentation graphics, database management, and e-mail usage, with an eventual goal of the student gaining certification in those areas.

INF 223 ADVANCED SPREADSHEET FOR BUSINESS 3 CR

Concepts including raw data management, business analysis and reporting. Other concepts include: collaboration and workbook security, using tables to analyze and report data, integrating and manipulating data from external sources, creating and auditing complex formulas, automation features, advanced data analysis, using charts to analyze and communicate business information **Prerequisite: INF 103 or INF 113**

INF 263 DATABASE CONCEPTS AND APPLICATIONS 3 CR

Concepts including entity-relationship diagrams, normalization to fifth normal form, database optimization. Other concepts include: file organization, database representation, descriptions, software reliability, security, integrity, relational data bases, query languages. **Prerequisite: INF 103**

INF 273 VIDEO I 3 CR

A study of time-based media production, design and issues including in-class demonstrations of equipment, camera/lighting techniques, file formats, codes, emphasizing attributes of digital video editing software. Exercises illustrate principles of visual dynamic images over a time frame. Students produce experimental commercial works of 10 to 15 seconds duration to interviews, documentaries, narratives up to 5 minutes length. Issues regarding streamed video discussed. **Prerequisite: INF 223**

LAW

LAW 203 BUSINESS LAW I 3 CR

This course is an introduction to the American legal system. It includes a survey of courts, legal procedures, torts, and criminal law. It involves an intensive study of the common law of contracts, including contract formation, performance, breach and remedies, as well as a study of the law of sales under the Uniform Commercial Code.

LAW 303 BUSINESS LAW II 3 CR

This course is a study of the law of agency, partnerships, corporations, and other business organizations. It includes a study of negotiable instruments, secured transactions, surety ship, bankruptcy, securities regulation, and related legal issues. **Prerequisite: LAW 203**

LAW 313 AUCTION LAW 3 CR

An overview of laws impacting the auctioneering environment. Ethical standards and legal ramifications of actions within the auctioneering profession will be explored and discussed. **Prerequisite: LAW 203**

LAW 323 BANKRUPTCY 3 CR

An in-depth study of federal bankruptcy regulations as well as state and local regulations. The impact of bankruptcy on the auctioneering industry will be examined. **Prerequisite: LAW 203**

LAW 403 EMPLOYMENT LAW 3 CR

This course is a survey of the law relating to the employment relationship, with a major emphasis on federal law. The course covers unions and collective bargaining under the National Labor Relations Act. Discrimination in employment will address the Civil Rights Act of 1964 as amended, the Equal Pay Act, the Age Discrimination in Employment Act, the Americans with Disabilities Act, and related statutes. State and federal law with regard to employment-at-will, privacy, whistleblower protection, and related issues will also be discussed. **Prerequisites: LAW 203, MGT 363**

LAW 413 INTERNATIONAL LAW 3 CR

The legal considerations governing international business transactions. Introduction to the international legal environment including the status of international law, international dispute settlement, conflicts of law. A more detailed study of the international contracting process, international payment mechanisms, carriage contracts, insurance issues, and related subjects. Government regulation of international business will also be addressed. **Prerequisites: LAW 203, BA 343**

LAW 503 PUBLIC POLICY AND THE LEGAL ENVIRONMENT 3 CR

This course includes an analysis of the legal, political and economic framework that has shaped public policy toward business in the United States. It will include the methods as to how public policy is created and its implications for management decision-making. The issues that this course will be concerned with are: how public policy is related to societal, community, employee, consumer, and environmental concerns and their implication for business. **Prerequisite: Graduate standing or approval of instructor**

LAW ENFORCEMENT

LE 103 INTRODUCTION TO CRIMINAL JUSTICE 3 CR

This course is an introduction to the criminal justice system that covers the processes, institutions and administration of justice in the United States. The course will concentrate on the purposes and history of the three primary parts of the criminal justice system: law enforcement, courts, and corrections.

LE 153 JUVENILE JUSTICE 3 CR

A comprehensive review of the nature and etiology of juvenile delinquency. The legal and philosophical basis of the juvenile justice process, procedures, and programs of prevention and rehabilitation.

LE 213 DIGITAL FORENSIC SCIENCE 3 CR

This course introduces the student to investigative techniques involving computers and other electronic devices. Topics include investigative procedures, computer hardware, data recovery methods and laws concerning digital devices. This course also covers how computers are used in investigations. **Prerequisite: INF 103 (Same as INF 213 and FS 213)**

LE 253 PROBATION, PAROLE & COMMUNITY CORRECTIONS 3 CR

An introduction to community-based corrections within the criminal justice system. A comprehensive review of the philosophies, and practices, traditional and nontraditional approaches, and exemplary programs of the juvenile, and adult systems.

LE 263 INTRODUCTION TO CRIMINAL LAW AND JUSTICE 3 CR

A survey of the American criminal justice system, its legal bases, and the interrelationships between local, state and national agencies. Specific attention will be focused on criminal law, criminal liabilities and punishments.

LE 273 CRIMINAL PROCEDURES AND EVIDENCE 3 CR

An examination of the various aspects of criminal procedures and their bases in the Constitution and in law. Topics include arrest, search and seizure, interrogation, and the exclusionary rule.

LE 313 POLICE ADMINISTRATION 3 CR

Historical and legal perspectives of policing in the United States. Issues include: organizational theory, police responsibilities, and leadership roles in contemporary law enforcement organizations. **Prerequisite: LE 103**

LE 343 CRIMINALISTICS AND CRIME SCENE INVESTIGATIONS I 3 CR

Introduction to criminalistics and crime scene investigation. Methods of processing a crime scene: documentation, location, and collection of evidence, proper collection and handling procedures, selection, and presentation for analytical examination, and presentation of the process and findings in court. **(Same as FS 343)**

LE 351 CRIMINALISTICS AND CRIME SCENE LABORATORY 1 CR

The study of types of chemical and physical analyses associated with crime scene investigations. **Prerequisite: LE 343 (Same as FS 351)**

LE 353 CRIMINALISTICS AND CRIME SCENE INVESTIGATIONS II 3 CR

Advanced criminalistics and crime scene investigation. A detailed review of current methodology of collection, processing, and court presentation of evidence. Analysis of the roles of law enforcement and forensic scientists. **Prerequisite:** LE 343 (Same as FS 353)

LE 363 INSTITUTIONAL CORRECTIONS AND CORRECTIONAL LAW 3 CR

A detailed review of penology and institutional corrections. A historical and contemporary perspective on jails and prisons. Rehabilitation and incarceration in both the adult and juvenile systems. A critical analysis of legislation and appellate decisions in correctional law for pretrial detainees and convicted and sentenced prisoners. **Prerequisite:** Junior standing or permission of instructor

LE 423 CRIMINAL JUSTICE AGENCY ADMINISTRATION 3 CR

A detailed examination of the unique blend of criminal justice and business/ public administration required in the administration of law enforcement, judicial and corrections agencies. A pragmatic analysis of public funding and utilization of local, state, and federal grants. **Prerequisite:** Junior standing or permission of instructor

LE 433 CRIMINAL JUSTICE CAPSTONE DEMONSTRATION 3 CR

This capstone course will provide students the opportunity to integrate and synthesize previous course work in Criminal Justice. In addition, to the Capstone Demonstration Project, students will be required to take the Major Field Test for Criminal Justice Majors. **Prerequisite:** All required coursework following the Psychology or Law Enforcement Concentration.

LE 453 TOPICS IN CRIMINAL JUSTICE 3 CR

Selected topics in the area of criminal justice. **Prerequisite:** Junior standing or permission of instructor

MATHEMATICS

MA 103 BUSINESS ALGEBRA 3 CR

This course emphasizes the business applications of the following: rational algebraic expressions, quadratic equations, linear systems, synthetic division, determinants, exponents, radicals, and logarithms.

MA 113 COLLEGE ALGEBRA 3 CR

Rational algebraic expressions, quadratic equations, non-linear systems, partial fractions, binomial expansion, synthetic division, determinants, exponents, radicals, logarithms.

MA 123 TRIGONOMETRY 3 CR

Trigonometric functions, identities, inverses, unit circle, solutions of triangles, trigonometric equations, complex numbers, radian measure, angular velocity.

MA 134 CALCULUS I 4 CR

Limits, continuity, differentiation, applications, definition of the integral, and fundamental theorem of integral calculus. Uses symbolic algebra software.

MA 153 ELEMENTS OF MATHEMATICS 3 CR

Set operations, introduction to logic, mathematics of finance, introduction to probability and statistics. Not open to engineering/science majors.

MA 164 CALCULUS II 4 CR

Applications of integration, differentiation, and integration of transcendental functions and methods of integration, L'Hopital's rule, conic sections, parametric equations, polar coordinates, infinite series. Uses symbolic algebra software. **Prerequisite:** "C" or better for MA 134 or equivalent

MA 173 APPLIED MATHEMATICS 3 CR

Mathematics of finance, graphical solution of linear programming problems, introduction to differential and integral calculus with applications. **Prerequisite:** MA 103 or MA 113

MA 213 CALCULUS III 3 CR

Calculus of several variables, algebra and calculus of vectors, partial differentiation, directional derivative, multiple integrals, applications. Uses symbolic algebra software. **Prerequisite:** “C” or better in MA 164 or equivalent

MA 233 DIFFERENTIAL EQUATIONS 3 CR

Topics include: methods of solution for first and higher order differential equations, systems of ordinary differential equations, Laplace transforms, series solutions. **Prerequisite:** MA 213

MA 253 STATISTICS 3 CR

Laws of probability, frequency distributions, sampling, expectation and variance, normal and sampling distributions, hypothesis testing, least squares, point, and interval estimates of parameters. Not open to engineering/ science majors. **Prerequisite:** MA 103 or MA 113

MA 323 OPERATIONS RESEARCH 3 CR

Computer solution of mathematical models for decision making. Linear, dynamic and integer programming, critical path scheduling, queuing theory, game theory, resource allocation. **Prerequisites:** INF 132 or CS 1113; MA 253 or MA 393

MA 393 PROBABILITY AND STATISTICS 3 CR

Finite probability, distributions, data analysis, sampling and sampling distributions, hypothesis tests, regression and correlation analysis, analysis of variance, design of experiments. **Prerequisite:** MA 213

MA 473 DISCRETE MATHEMATICS 3 CR

An introduction to discrete and combinatorial mathematics. Construction and analysis of mathematical models using combinatorics, graph theory and other discrete methods with application in a wide variety of areas. **Prerequisite:** MA 213

MECHANICAL & AEROSPACE ENGINEERING

MAE 303 MECHANICS OF MACHINERY 3 CR

Topics include: study of the kinematics and dynamics of mechanisms. Fundamentals of displacement, velocity, and acceleration analysis of rigid bodies as a basis for the study of mechanisms. Motion analysis of linkages, cams, and gearing. Static and inertia force in machines. Balancing of rotating and reciprocating masses. **Prerequisite:** ES 223

MAE 343 MANUFACTURING PROCESSES AND EQUIPMENT 3 CR

An examination of commonly used engineering materials and the manufacturing processes and machines used in processing these materials. Demonstrations of: sand molding, metal casting, metal removal processes (turning, milling, drilling, grinding), and deformation processes. Introduction to CNC machining. **Prerequisites:** ES 233, ES243

MAE 353 MACHINE COMPONENT DESIGN 3 CR

Topics include: stress analysis of machine parts, combined stresses, working stress, stress concentration, theory of failure for both static and fatigue loadings, design of machine elements. **Prerequisites:** ES 233, ES 243; **Corequisite:** MA 313

MAE 463 MEASUREMENT LABORATORY 3 CR

Principles of dimensional measurement and the measurement of deflection, stress, strain, and vibration. Transducer theory and signal conditioning. Use of computer data acquisition and signal analysis. Analysis of experimental error and construction of test plans. Laboratory work leading to an experimental project. **Prerequisites:** ES 253, MA 393, MAE 353

MANAGEMENT

MGT 313 HUMAN RESOURCES MANAGEMENT 3 CR

This course includes a discussion of policies, objectives, principles and organizational structure as they pertain to personnel work. The major activities of a personnel department such as recruiting, selecting, training, and employee relations are examined along with the impact of government laws and regulations on these activities. **Prerequisite: Junior standing or permission of instructor**

MGT 323 LEADERSHIP 3 CR

This course examines leadership, influence, and power across a variety of disciplines, with a strong emphasis on ethics. Historical, literary, and contemporary examples of successful leadership provide a framework for examining the theories and practice of leadership and power. **Prerequisite: Junior standing or permission of instructor**

MGT 333 SUPERVISION 3 CR

This course is intended for people who are, or plan to be, first line supervisors. Its purpose is to present basic principles that will assist in developing the talent needed to direct other people. Skill building cases and incidents are part of the course content. **Prerequisite: MGT 363**

MGT 343 HUMAN RESOURCE DEVELOPMENT 3 CR

This course is a study of processes, methods, theories, and current practices in training and staff development in business and organizational settings. The course focuses on practices that facilitate learning and change to achieve organizational objectives. **Prerequisite: Junior standing or permission of instructor**

MGT 353 DESIGNING OPERATIONS 3 CR

This course examines the central concepts of designing operations in both manufacturing and service enterprises. Topics include process strategy, location and layout strategy, job design, quality management, planning, productivity, and the design of goods and services. **Prerequisites: MA 173 or permission of instructor**

MGT 363 ORGANIZATIONAL BEHAVIOR 3 CR

This course examines the manager's role in dealing with behavior at all organizational levels. It emphasizes the need for interpersonal and group skills. Applications of behavioral science concepts and findings to organizational situations are included. Topics include motivation, communications, leadership, conflict, and change. **Prerequisites: COM 213, PSY 113, or permission of instructor**

MGT 413 MANAGEMENT OF QUALITY 3 CR

This course examines principles of quality management and continuous improvement in manufacturing and services enterprises. The focus is on using key quality tools, including statistical process control, pareto charts, flow charts, cause-effect diagrams, etc. **Prerequisite: MGT 353, MA 253, or permission of instructor**

MGT 443 MANAGING OPERATIONS 3 CR

This course examines contemporary operations management principles and practices. Topics include project management, inventory management, aggregate planning, supply chain management, materials requirement planning, lean manufacturing, and just-in-time principles. **Prerequisite: MGT 353 and MA 253 or permission of instructor**

MGT 453 STRATEGIC MANAGEMENT 3 CR

This course requires a knowledge of all functional areas of business. It integrates these areas through analysis of case histories and related readings. Class discussion, presentations and written reports are used extensively.

Prerequisite: This course is the capstone business course and should be taken the last semester before graduation. Completion of all business core courses

MGT 463 SMALL BUSINESS MANAGEMENT 3 CR

This course examines the preparatory steps necessary to launch a small business enterprise, as well as manage the everyday complexities of cash flow, marketing, staffing, pricing, purchasing, and advertising. Its purpose is to present the many competencies needed to operate a small business successfully in the competitive environment of the 21st century. Case analysis and personal interviews are the primary integral components of the course content. **Prerequisites:** AC 213, MK 303, FIN 303, MGT 353, MGT 363

MGT 473 CAPSTONE BUSINESS SIMULATION 3 CR

This course through competitive simulations, will teach the importance of team work, strategic planning and the impact of decision-making within a business entity. Small teams will manage a business entity throughout the course. Teams will make and submit decisions regarding functional areas of the entity, including research and development, production, marketing, finance, and human resources. The decisions will then be analyzed and feedback given on how the decisions would have impacted their entity. Teams will be competing with other teams across the globe, and they will see immediately how their decisions position their given entity in that global business arena. **Prerequisites:** Completion of all business core courses or permission of the dean of the School of Professional Studies

MGT 493 SELECTED TOPICS 3 CR

Offered to treat specific or current business or management issues in depth **Prerequisite:** MGT 353, MGT 363 or permission of the instructor

MGT 523 COMMUNICATIONS, LEADERSHIP AND ETHICS 3 CR

This course examines leadership, influence, and power across a variety of disciplines with a strong emphasis on ethics. Historical, literary, and contemporary examples of successful leadership provide a framework for examining the theories and practice of leadership and power. This course requires substantial advanced critical thinking and writing. **Prerequisite:** Graduate standing

MGT 543 OPERATIONS STRATEGY AND MANAGEMENT 3 CR

This course examines the central role of operations in both manufacturing and service enterprises. Topics include quality management, design of goods and services, layout, scheduling, project management, inventory management, supply chain management, and purchasing activities within the firm. **Prerequisite:** Graduate standing

MARKETING

MK 303 MARKETING 3 CR

The marketing activities necessary to provide goods and services to target customers are examined, as well as the role marketing plays in the social and economic system. The marketing variables of product, promotion, placement, and price are considered in the context of strategic planning, implementation, and control. **Prerequisite:** Junior standing or permission of instructor

MK 313 RETAIL MANAGEMENT 3 CR

This is the study of the role of retailing in the domestic and international marketing process. A functional approach is taken in the study of retailing topics of placement, promotion, pricing, inventory control. Also examined are the consumer purchasing behavior and lifestyle profiles to understand growth of nontraditional channels. **Prerequisite:** Junior standing or permission of instructor

MK 323 INTEGRATED MARKETING COMMUNICATIONS 3 CR

The integrated approach to marketing communications is emphasized. Advertising, sales promotion, database/direct marketing, public relations, sponsorship/event marketing, support media, trade promotions, internet marketing, personal selling, and their coordination through a common brand and theme are investigated. **Prerequisite:** Junior standing or permission of instructor

MK 333 BUYER BEHAVIOR 3 CR

Studies in this course include consumer and organizational buying behavior, as well as determinants of this behavior. Consumer characteristics, including attitudes and behaviors, processing of information, as well as consumer cultural, psychological and communication theories are also studied. Course also examines industrial perspectives; the unique aspects of organizational markets

and how they differ from individual consumer behavior. **Prerequisite: Junior standing or permission of instructor**

MK 343 INTERNATIONAL MARKETING 3 CR

This course provides a detailed examination into the principles and practices of international marketing as it applies to today's global economy. In-depth studies and analysis will be made of trade and commercial policies and practices, as well as international product adaptation, promotion, distribution, and pricing strategies. The student will examine the international marketing manager's role in the development of an export marketing program. **Prerequisites: BA 343, MK 303 or permission of the instructor**

MK 423 PERSONAL SELLING 3 CR

This course examines the impact of personal selling in today's competitive marketplace. Topics examined are motivation, account selection, compensation, seller's role in the economy, and personality variables. **Prerequisite: Junior standing or permission of instructor**

MK 433 MARKETING MANAGEMENT 3 CR

This is the study of the planning, implementation, and outcomes of a firm's marketing program. Content will focus on identification, analysis, and reviews of internal/external factors associated with marketing policies and programs. **Prerequisites: MK 303**

MK 463 MARKETING RESEARCH 3 CR

This is the study of techniques and approaches associated with researching marketing topics. It includes consumer research, market analysis, product research, advertising research, and sales analysis. **Prerequisites: MK 303 or concurrently, or permission of the instructor**

MK 473 E-MARKETING 3 CR

Electronic technologies are applied to the functions of marketing which are product, price, placement, and promotion. E-marketing transforms traditional business using new models that add customer value and increase profitability. The outcome of the course will be the creation of an E-marketing plan. **Prerequisite: Junior standing or permission of instructor**

MK 483 SENIOR SEMINAR IN MARKETING 3 CR

This is an integrative capstone course which brings together all the functional areas of marketing. The focus is on decision-making and problems in marketing strategy. Students will study marketing considerations and responses to changes in the customer, legal, trade, technological and regulatory environments. This course includes the preparation and organization of a comprehensive marketing plan. **Prerequisite: Senior Marketing Major or Minor in Marketing having completed most of the required marketing courses**

MK 493 SPECIAL TOPICS IN MARKETING 3 CR

Offered to treat specific or current marketing issues in depth. **Prerequisite: Junior standing or permission of instructor**

MK 503 STRATEGIC MARKETING MANAGEMENT 3 CR

This course examines the collective marketing activities (pricing, promotion, placement, product) as they relate to the target market. The strategic planning process and how it relates to the overall profitability of the marketing department and a corporate structure will be studied. **Prerequisite: Graduate standing**

MUSIC

MUS 273 MUSIC & CULTURE 3 CR

An introduction to the music of the Western world, including musical styles of the past and styles and forms of contemporary music literature. Previous music training not a prerequisite. This course explores how people define, create, value, and use music in cultures around the world. The basic musical elements of rhythm, melody, timbre, texture, harmony, and form are explored through this multicultural approach to music appreciation.

PHYSICS

PH 104 PHYSICAL SCIENCE 4 CR

A development of basic concepts and theories in the physical sciences and physics. Conceptual view of mechanics, thermodynamics, sound waves, electricity, magnetism, and optics.

PH 154 COLLEGE PHYSICS I 4 CR

An algebra-based introduction to the concept and application of Newton's Law, linear and rotational motion, work, energy, and momentum, solids and fluids, heat, vibrations, waves and sounds. Experimental investigation of selected topics. **Prerequisites:** MA 113, MA 123

PH 164 COLLEGE PHYSICS II 4 CR

An algebra-based introduction to the concept and application of Coulomb's Law, capacitance, DC electric circuits, magnetism, electromagnetic induction, optics and optical instruments, and relativity and quantum physics. Experimental investigation of selected topics. **Prerequisites:** PH 154

PH 224 UNIVERSITY PHYSICS I 3-2-4

Underlying principles of measurement, vectors, translatory, rotary, uniform, circular, and harmonic motion, work, power, energy, and physical properties of liquids, solids, gases, and statics. Also the fundamentals of heat: thermometry, expansion of liquids, solids and gases, calorimetry, heat transfer, elementary thermodynamics, and fluids. Experimental investigation of selected topics. **Prerequisite:** MA 134

PH 234 UNIVERSITY PHYSICS II 3-2-4

Study of vibrations and wave motion: different types of simple harmonic motion, sound. Also the fundamentals of electric fields, Gauss's Law, electric potential, capacitance, magnetism, direct, and alternating currents and circuits. Electromagnetic wave propagation and optics. Experimental investigation of selected topics. **Prerequisites:** MA 164, PH 224

PHILOSOPHY

PHL 203 INTRODUCTION TO PHILOSOPHY 3 CR

A study of the perennial problems of philosophy, such as the nature of knowledge, the role of the self, the existence of God, and the function of science. The contributions of the great thinkers of history to these problems are presented so that the student may find aid in forming his or her own philosophy.

PHL 251 ANCIENT GREECE FROM THE PERSIAN THROUGH PELOPONNESIAN WARS 1 CR

An examination of the culture of Athens and Sparta during the 5th century B.C., concentrating on the Persian and Peloponnesian wars and their lasting effects on Western Civilization. **(Same as HIS 251)**

PHL 313 ETHICS 3 CR

A study of ethical language, methods of justifying ethical decisions, and types of ethical value systems, with emphasis on practical applications in terms of personal and social morality. **Prerequisite:** Junior standing or permission of instructor

PHL 323 PHILOSOPHY OF RELIGION 3 CR

An inquiry into the nature of religious experience, activity and belief. An examination of the concepts of God, freedom, and immortality as well as the relationship of religious knowledge to artistic and scientific knowledge. **Prerequisite: Junior standing or permission of instructor**

PHL 333 ART, TECHNOLOGY AND SOCIETY 3 CR

An interdisciplinary effort to place modern technology within a social, cultural, and historical context. **Prerequisite: ENG 113 or ENG 133 (Same as SOC 333)**

PHL 343 LOGIC 3 CR

An examination of the function of language and the nature of meanings. Valid and invalid reasoning, deductive and inductive methods. Particular emphasis will be given to the application of formal techniques to the evaluation of arguments in everyday settings. The course is argument and language oriented. **Prerequisite: Junior standing or permission of instructor**

PRE-LEGAL STUDIES

PL 4003 LEGAL CAPSTONE EXPERIENCE 3 CR

The legal capstone experience will provide the opportunity to utilize the skills and knowledge the student has attained in their previous coursework in a concerted effort to prepare for and gain law school admission. **Prerequisite: Junior standing or permission of instructor**

PSYCHOLOGY

PSY 113 PRINCIPLES OF PSYCHOLOGY 3 CR

Introduction to the scientific study of human and animal behavior. Course covers all of the major areas within psychology, including development, learning, intelligence, personality, attitudes, altered states of consciousness, abnormal behavior, and psychotherapy.

PSY 303 RESEARCH METHODS IN PSYCHOLOGY 3 CR

An introduction to research methods employed in psychology, with special emphasis on experimental design. Topics include between and within-subjects designs, quasi-experimental designs, as well as research ethics and procedures for controlling extraneous variables. **Prerequisite: PSY 113**

PSY 313 TOPICS IN PSYCHOLOGY 3 CR

Survey, in detail, of one of the major areas of study within psychology. The course changes each semester with the specific topic of study announced in the class schedule. **Prerequisite: PSY 113**

PSY 323 ABNORMAL PSYCHOLOGY 3 CR

Survey of abnormal psychology, including such topics as clinical assessment, anxiety disorders, schizophrenia, personality disorders, age-related problems, depression, sexual dysfunctions, psychotherapy, and related legal and ethical questions arising within clinical psychology. **Prerequisite: PSY 113**

PSY 333 PSYCHOLOGY OF PERSONALITY 3 CR

An introductory survey of problems, methods, and theories; personality development and motivation, with emphasis on the normal contemporary theories of adjustment and idiodynamics. **Prerequisite: PSY 113**

PSY 343 SOCIAL PSYCHOLOGY 3 CR

An introduction to the measurement and principles of human interaction and group behavior including attitude change, prejudice, attraction, love, altruism, aggression, conformity, group dynamics, crowding, and other current social issues. **Prerequisite: PSY 113 (Same as SOC 343)**

PSY 353 CHILD AND ADOLESCENT PSYCHOLOGY 3 CR

An investigation into the development stages within the life of a human being, from birth through adolescence, with emphasis on the origin of personality and factors related to intellectual growth. **Prerequisite: PSY 113**

PSY 363 COUNSELING 3 CR

Examines the theory and practice of counseling with a corporate or social service setting. Exposure to a variety of therapeutic techniques. Experiences first-hand the complexities of the human mind through a case-study approach. Direct versus indirect forms of interventions are explored. **Prerequisite: PSY 333 (same as SOC 363)**

PSY 373 POLITICAL PSYCHOLOGY 3 CR

An examination of the role of group dynamics and personality variables in contemporary political issues, including leadership and power, political attitudes, current social movements, conflict resolution, coalition formation, cross-cultural comparisons of political attitudes, and other issues. **Prerequisites: GOV 113 or PSY 113 (Same as GOV 373)**

PSY 383 FORENSIC PSYCHOLOGY 3 CR

A pragmatic review of the psychological and sociological theories and practices which seek to evaluate and analyze deviant human behavior and environments which precipitate criminal conduct. An introduction into the profiling and prediction of criminals and criminal behavior. **Prerequisite: PSY 113**

PSY 403 HUMAN SEXUALITY 3 CR

A survey of the historical, cultural, and psychological origins of sex differences as they relate to sex role identity, stereotyping, and related behavior. **Prerequisite: PSY 113**

PSY 413 THE PSYCHOLOGY OF ADDICTION 3 CR

A study of the psychological and sociological factors relating to the problems of addiction. Special attention will be given to the effects which alcohol and other drugs have upon fetuses, children, adults, families, and communities. **Prerequisite: PSY 113**

PSY 423 COUNSELING THEORIES AND PRACTICES 3 CR

A thorough review of contemporary approaches to counseling. This course examines the major current theories and practices in psychotherapy in detail. **Prerequisite: PSY 323**

PSY 443 ADVANCED FORENSIC PSYCHOLOGY 3 CR

An in-depth study of the etiology of criminal behavior. A critical analysis of mentally disordered, psychopathic, and sexually disordered offenders. Students acquire profiling and prediction skills. **Prerequisites: PSY 38, junior or senior standing**

PSY 473 PSYCHOLOGY CAPSTONE DEMONSTRATION 3 CR

This capstone will provide students the opportunities to integrate and synthesize previous course work in psychology. In addition to the Capstone demonstration Project, students will be required to take the Major Field Test for Psychology Majors. **Prerequisite: All required coursework in the Psychology Core.**

PSY 400X INDEPENDENT STUDIES IN PSYCHOLOGY VARIES (1-4 HRS.)

Credit earned through directed reading, independent study, research, or supervised field work. Maximum four hours credit. **Prerequisite: Permission of Dean of the School of Professional Studies**

SOCIOLOGY

SOC 103 PRINCIPLES OF SOCIOLOGY 3 CR

A presentation of the basic concepts and principles of sociology, designed to develop a system of thought about the nature of society and major special problems, such as ethnic patterns, social stratification, youth, educational, and religious institutions.

SOC 243 ECONOMICS OF SOCIAL ISSUES 3 CR

An economic analysis of social issues, such as the problems of pollution, poverty, crime, and the use of drugs. A study of the economic consequences of various social and economic policies, population pressures and related energy and pollution problems.

Prerequisite: ECO 213 (Same as ECO 243)

SOC 313 TOPICS IN SOCIOLOGY 3 CR

Selected topics in sociological content such as criminology, minority groups, urbanization, and the like. Topics will vary from semester to semester. **Prerequisite:** SOC 103

SOC 323 THE FAMILY 3 CR

An analysis of problems and relationships in the family setting: divorce, mobility, generation differences, changing role of women and youth, delinquency, cross cultural patterns. **Prerequisite:** PSY 113 or SOC 103

SOC 333 ART, SOCIETY AND TECHNOLOGY 3 CR

An interdisciplinary effort to place modern technology within a social, cultural and historical context. **Prerequisite:** ENG 113 or ENG 133 (same as PHL 333)

SOC 343 SOCIAL PSYCHOLOGY 3 CR

An introduction to the measurement and principles of human interaction and group behavior, including attitude change, prejudice, attraction, love, altruism, aggression, conformity, group dynamics, crowding, and other current social issues. **Prerequisite:** PSY 113 (Same as PSY 343)

SOC 363 COUNSELING 3 CR

Examines the theory and practice of counseling with a corporate or social service setting. Exposure to a variety of therapeutic techniques. Experiences first-hand the complexities of the human mind through a case-study approach. Direct versus indirect forms of interventions are explored. **Prerequisite:** PSY 333 (same as PSY 363)

SPEECH

SP 102 INTRODUCTION TO THEATER 2 CR

Understanding the roles of playwrights, actors, directors, designers, and audiences within the “living art” of theater. Demonstrates the relationship between art and culture through the study of, participation in, and viewing of theater.

SP 203 EFFECTIVE SPEAKING 3 CR

Application of communication principles to improve extemporaneous public speaking and listening skills. Considers principles of audience analysis and rhetorical invention, worthy and effective evidence and inductive reasoning, speaker and source credibility, organization and outlining, effective speaker audience interaction, listening for comprehension, and critical listening. **Prerequisite:** ENG 113 or ENG 133

SP 212 ORAL INTERPRETATION 2 CR

The techniques of oral interpretation, with emphasis on the selection and analysis of literature and the skilled use of the voice and body for meaningful and aesthetic communication. **Prerequisite:** ENG 153

SPANISH

SPN 103 SPANISH CONVERSATION I 3 CR

An introduction to the Spanish language with an emphasis on functional conversation skills. Vocabulary development and pronunciation within communicative contexts are stressed. No previous study of Spanish is required.

SPN 113 SPANISH READING AND WRITING I 3 CR

An introduction to the Spanish language with an emphasis on reading and writing in Spanish. Vocabulary development and the basics of Spanish structure are also covered. No previous study of Spanish is required.

SPN 123 SPANISH II 3 CR

A continuation of Spanish 113, integrating listening, speaking, reading, and writing skills. Basic grammar and Latin American and Spanish cultures are covered. **Prerequisite:** SPN 113

UNIVERSITY EXPERIENCE

UE 101 UNIVERSITY EXPERIENCE 1 CR

This course offers resources for success in learning for students new to Trine University. This course will assist students in becoming more proficient learners, understanding self and others, and learning personal life skills. This course will present information about Trine University offices and services to familiarize students with resources and procedures.

TABLE OF CONTENTS – Graduate Admission

Graduate Policies	102
Graduate Financial Aid.....	108
Graduate Admission Criteria master of Science with a Major in Criminal Justice.....	114
Graduate Master of Science with a Major in Criminal Justice	114
Graduate Course Requirements MSCJ	114
Graduate Admission Criteria Master of Science in Leadership	115
Graduate Master of Science in Leadership	115
Graduate Course Requirements Leadership.....	115
Graduate Course Descriptions	117

TRINE UNIVERSITY GRADUATE POLICIES

Changes approved by Graduate Council March 15, 2011

CULTURE OF GRADUATE LEARNING

Graduate learning, teaching and scholarship differ from the undergraduate educational experience through the intensity of learning and the role of applicable research. All graduate experiences should reflect an in-depth study of a particular curricular field and should lead students to independent thinking, learning and knowledge acquisition.

AFFIRMATIVE ACTION STATEMENT

Trine University is committed to the equitable treatment of students, faculty and staff; therefore, all who work, live, study and teach in the Trine Community will be valued on the basis of scholastic achievement and academic potential without regard to race, religion, color, gender, sexual orientation, or age.

ADMISSION REQUIREMENTS

Students seeking to enroll in graduate studies must have:

1. A bachelor's degree from a regionally-accredited institution in an appropriate academic field, *or*
2. a bachelor's degree from a regionally accredited institution in a related field and significant major-specific professional experience, *or*
3. a bachelor's degree from a non-regionally accredited institution in an appropriate or related field and GRE test scores of 152 verbal and 148 quantitative or higher. (A GMAT score of 570 or higher may substitute for the GRE at the discretion of the department chair, program director, or dean.)

Applicants whose native language is not English must provide evidence of a minimum score of 550 on the paper-based or 213 on the computer-based Test of English as a Foreign Language (TOEFL).

Admittance to any graduate program is valid for one year from the time of admission to enrollment.

STUDENT CLASSIFICATIONS

1. Dual Undergraduate/Graduate

Dual undergraduate/graduate enrollment status is granted to those who concurrently seek a bachelor's and master's degree from the Allen School of Engineering and Technology. These students will be changed to graduate status after earning 132 credit hours, at which time they must have a cumulative grade point average of at least 3.0. Students who do not meet this standard will not be given graduate status and will be awarded the BS degree when the BS requirements are met. Students will be awarded each degree upon completion of its respective degree requirements.

2. Graduate

Prospective graduate students are required to submit a completed Graduate Application, official academic transcripts from every previous undergraduate and graduate institution attended (except Trine University), and supplemental admission materials as required by the department or program in order to be considered for admission into graduate programs.

Transcripts of prospective students will be evaluated by the program chair/director in consultation with the school dean to determine if additional undergraduate coursework is required to adequately prepare for the rigors of graduate coursework.

One of the following conditions must be met to enroll in graduate coursework:

1. An undergraduate grade point average of 3.0 or greater *or*
2. Permission for admission as a conditional graduate student as approved by the program chair/director and dean as follows:

Conditional Admission

In order to be considered as a candidate for conditional graduate admission, students who have not earned a cumulative GPA of 3.0 in an undergraduate degree program must submit the following materials to the program chair/director in addition to required application materials:

- A 1-page narrative describing challenges or extenuating circumstances that led to the student earning less than 3.0 GPA in undergraduate work. Students must include a description of specific strategies they will use to ensure academic progress within the graduate degree program.
- An additional letter of recommendation from a professional colleague who can address the applicant's situation and potential for success.
- The applicant's resume or vita indicating positions held that demonstrate task commitment, knowledge and skill relevant to the applicable course of study.

Upon receipt of the all materials, the application will be reviewed by the department chair/program director and a recommendation will be made to the dean for conditional admission. Students admitted conditionally will become graduates in good standing upon completion of four graduate level courses maintaining a B or better grade in each course. Conditional graduate students not garnering a grade of B or better in each of their first four courses will be dismissed.

3. Special Graduate Student

Special Graduate Student status is granted to those students who wish to (1) audit a course, (2) seek certification in specialized areas, or (3) enroll in certain courses but do not plan to pursue a graduate degree program.

For degree-seeking students who audit courses, a fee of ½ the nominal rate is charged per credit hour. For special graduate students who are non-degree seeking, full tuition will be charged.

All graduate admission decisions must be reported once each semester to the assistant vice president for graduate studies.

ACADEMIC RESIDENCY/TRANSFER CREDIT

A maximum of 6 semester hours of graduate course credit completed at other graduate schools may be counted toward completion of the Master's degree at Trine University with a grade of B or above and with the approval of the program chair/director and dean. All other courses must be taken at Trine University. Transfer credit will not include a grade and, therefore, will not impact the student's GPA. Courses used to satisfy the requirements of a bachelor's degree cannot be applied to the master's degree.

The final 15 credits of a master's degree must be taken at Trine University unless a waiver is granted by the academic dean upon recommendation of the program chair/director.

For the five-year engineering programs, students holding senior class standing may take up to 6 credit hours in the graduate program with the approval of the program coordinator, and if: (1) these credits were not applied to the undergraduate degree, (2) the credits were earned in designated graduate courses, and (3) a grade of B or better was earned in the course.

GRADUATION REQUIREMENTS

Students must have a 3.0 cumulative GPA, complete all necessary program requirements, and carry a grade of C or better in all courses to qualify for graduation.

GRADUATE STUDENT COMMENCEMENT PARTICIPATION

Graduate students are eligible to attend the spring commencement ceremony following their degree completion. No graduation honors or honor cords are used for graduate degrees.

CREDIT BY EXAMINATION

There is no credit by examination in the Trine graduate programs.

GRADING SYSTEM

The grading system is as follows:

A	Excellent	4.0
B+	Very Good	3.5
B	Good	3.0
C+	Above Average	2.5
C	Average (lowest passing grade)	2.0
F	Failure	0.0
I	Incomplete	not figured into GPA
IP	In progress (grade deferred)	not figured into GPA
W	Withdrawal before completion of 80% of the semester	
WP	Withdrawal after completion of 80% of the semester with (passing work at the time of withdrawal) issued only under special circumstances and with the approval of the department chair/program director.	

INCOMPLETE GRADE POLICY

Incomplete (I) is a temporary grade used by the instructor in cases where a student is unable to complete course requirements because of circumstances beyond the student's control such as illness, family emergency or other similar circumstances. Incomplete grades are rarely assigned and only if the student has satisfactorily completed the vast majority of the course requirements and has convinced the instructor of his or her ability to complete the remaining work without registering for the course again. An instructor who assigns a grade of "I" submits to the program chair/director a formal statement of requirements that must be satisfied for removal of the incomplete grade. A copy of the statement of requirements, including deadlines for their completion, shall be made available to the student.

It is the student's responsibility to contact the instructor to make arrangements for completing the remaining work. The required work should be completed and a grade reported by the end of the student's next semester in residence, but in no case later than one calendar year following the receipt of the "I" grade. An "I" grade not removed within one year from the end of the semester in which the "I" grade was issued will be converted to an "FI" grade by the registrar. An "I" grade may not be removed by registering again for the course.

If the instructor giving the "I" grade is no longer a member of the faculty, the student should contact the program chair/director who will act on behalf of the former instructor. In the case of a graduating senior, if an "I" or "IP" grade is not removed until after the start of the next semester, the graduation date will reflect the new semester.

IN PROGRESS GRADE POLICY

The "IP" (In Progress) grade is to be given only in courses so designated by the respective schools. The "IP" grade is designed for courses which require more than one semester for completion. An "IP" grade not removed within one year from the end of the semester in which the "IP" grade was issued will be converted to an "F" by the registrar. An "IP" grade may not be removed by registering again for the course.

COURSE REPEAT

A student may retake a course at Trine University; however, no more than two courses may be retaken during the student's course of study. The number of repeated courses may be further limited by individual departments, and scheduling constraints may impact the length of the program.

Whenever a course is repeated on a credit basis, the higher grade and credits earned completely replace the previous grade in the satisfaction of requirements and computation of grade-point averages. All entries remain a part of the student's permanent academic record.

WITHDRAWAL FROM CLASS

A student may withdraw from class through 80 percent of the semester, provided the student obtains the proper form from the registrar and obtains academic advisor approval. International students must also have the approval of the registrar if they will be dropping below 9 credit hours.

All students dropping below full-time status must have the approval of the director of financial aid. The completed form shall be submitted to the registrar before 80 percent of the semester is completed.

No classes shall be dropped after the completion of 80 percent of the semester except for circumstances beyond the control of the student, such as illness, family emergency, or other similar circumstances. Permission to withdraw after the completion of 80 percent of the semester must be obtained from the program chair/director of the student's department. If permission is granted, a grade of "WP" will be issued if the student was passing at the time of withdrawal.

A grade of "F" will be issued if the student was failing and will count toward the student's cumulative and semester grade point averages.

Any deviation from the policy will be considered an unofficial withdrawal, and a grade of "F" will be issued.

ACADEMIC STANDING

Students whose cumulative GPA drops below a 3.0 will be dismissed from Trine University. A student who is dismissed may apply for readmission immediately by contacting the Registrar and completing the re-admit form, providing a 3-4 paragraph written statement explaining why he/she was not meeting academic standards and outlining a plan for his/her future success. The re-admit form requires students to submit a plan for raising their cumulative GPA back to 3.00.

The Graduate Council will determine the outcome of the re-admit request.

GRADE APPEALS

The awarding of grades is the prerogative of the classroom instructor in accordance with policies posted in the Trine University Catalog. Faculty members are responsible for informing students of their grading policy. Grades become official when they are reported to the Registrar. If a faculty member discovers incorrectly reported grades due to miscalculation or clerical error, the error should be reported to the Registrar immediately on the prescribed form. The appropriate program chair/director must approve any adjustment of grades.

A student who disagrees with an assigned grade will take the following steps:

- Approach the professor and explain the problem.
- If the professor and student do not come to an agreement, the student should write a letter to the program director/chair.
- If the program director/chair's mediation does not resolve the issue, the student should file a written appeal to the Dean.

If these steps do not resolve the problem, or if impractical, the student may petition the Grade Review Board in writing for a hearing of the issue. Information regarding this may be obtained from the Vice President for Academic Affairs. The petition shall set forth in detail the basis for the review. This should be done by the midterm of the first regular term following the assignment of the grade. The Board may grant an extension of this time limit. If the Board agrees to hear the case, it will so inform the student by the end of that term. In grade review cases, the student is responsible for presenting evidence to support his/her position.

At the Grade Review Hearing, the student shall present his/her argument followed by the professor's response. The Board shall promptly prepare a written recommendation and forward copies to all parties involved, including the Chairperson and Vice President for Academic Affairs. The report shall include dissenting opinions on the Board, if any. Recommendations of the Board are advisory. In cases involving death, incapacity, or prolonged inaccessibility of the professor, or in similar unusual circumstances, the professor's immediate supervisor is responsible for assigning the grade. Records of each case heard by the Board shall be maintained in the office of the Vice President for Academic Affairs. If the student or professor involved wishes to appeal the decision on procedural grounds, he/she should file an appeal within two working days for the decision with the Vice President for Academic Affairs. If any procedural irregularities are discovered, he/she will notify the student and the Board within ten working days after the appeal.

The Vice President for Academic Affairs shall appoint the faculty members who will serve on the Board. He shall choose one regular member and one alternate (who will be from a different department, if possible) from each school. In addition, the Student Senate shall elect two student members and their alternates. Student members must have junior or senior standing. The faculty

members shall serve three-year, staggered terms, and faculty members serving their third year will chair the committee. Student members shall serve one-year terms.

ASSESSMENT

The academic assessment process at Trine University is designed to measure the abilities and knowledge of students graduating from all degree programs. It also measures student satisfaction with the program. Sometimes students will be asked to reply to surveys or questionnaires that rate the quality of instruction, the level of satisfaction with career preparation, and the overall satisfaction of the Trine experience. Occasionally, anonymous samples of student course work will be used in an assessment process.

Trine University is committed to providing quality educational experiences for our students. The information gathered through the assessment process provides information for continual improvement of our programs.

PAYMENT OF EDUCATIONAL COSTS

Payment of tuition and fees is due at the Business Office on the date indicated on the student's bill. Any student with outstanding financial obligations to the University will not be permitted to register for any subsequent semester or receive a transcript or diploma until the obligation is fulfilled. Students maintaining a balance owed to the University will be assessed late fees and will be responsible for collection and/or attorney costs if such efforts should become necessary.

ACADEMIC INTEGRITY

The University prohibits all forms of academic misconduct. Academic misconduct refers to dishonesty in examinations (cheating), presenting the ideas or the writing of someone else as one's own (plagiarism) or knowingly furnishing false information to the University by forgery, alteration, or misuse of University documents, records, or identification. Academic dishonesty includes, but is not limited to, the following examples: permitting another student to plagiarize or cheat from one's own work, submitting an academic exercise (written work, printing, design, computer program) that has been prepared totally or in part by another, acquiring improper knowledge of the contents of an exam, using unauthorized material during an exam, submitting the same paper in two different courses without knowledge and consent of professors, or submitting a forged grade change slip or computer tampering. The faculty member has the authority to grant a failing grade in cases of academic misconduct as well as referring the case to Student Life.

PLAGIARISM

A student is expected to submit his/her own work and to identify any portion of work that has been borrowed from others in any form. An ignorant act of plagiarism on final versions and minor projects, such as attributing or citing inadequately, will be considered a failure to master an essential course skill and will result in an F for that assignment. A deliberate act of plagiarism, such as having someone else do your work or submitting someone else's work as your own (e.g., from the Internet, fraternity file, etc., including homework and in-class exercises), will at least result in an F for that assignment and could result in an F for the course.

DEGREES

An "Intent to Graduate" form obtained through the Registrar's office should be filed at the beginning of the master's program. This form will include an expected graduation date and other information pertinent to graduation. All degree requirements must be completed within 5 years.

TRANSCRIPTS

A hold may be applied to the release of a transcript or other information requested from an academic record for a student who has an overdue indebtedness to the University.

A current student may obtain a maximum of five unofficial (personal) copies of his or her Trine University transcript at no charge while attending the University. All official transcripts which bear the registrar's signature and school seal are available at an additional cost. Additional unofficial transcripts are also available at additional cost.

RELEASE OF STUDENT INFORMATION

To ensure compliance with the federal government's Family Education Rights and Privacy Act (FERPA), the following general principles and procedures govern the release of information from student academic records.

A written request signed by the student whose name appears on the transcript and that contains information such as date of birth and/or the Trine University student identification number, is required before a University transcript or other information from the student's academic record may be released. Trine University will not release copies of transcripts from another institution.

Exceptions to the above statements are outlined in the following paragraph:

- The Office of the Registrar may release transcripts or information from academic records including reports of academic standing to administrative and faculty members of Trine University whose responsibilities require this information.
- Public directory information from student records may be released at any time unless restricted by the student. This includes the student's name, local and permanent addresses and telephone numbers, e-mail address date and place of birth, major field of study, class year, participation in officially recognized activities and sports, weight and height of athletic team members, dates of attendance, degrees, awards received, and photographs.
- Information pertaining to graduation and honors achieved may be released for publication unless otherwise restricted by the student.

Upon proper identification, a student will be shown the following:

- His or her Trine University permanent academic record, including the student's file and transcript.
- His or her transcripts from another institution.

SEMESTER HOUR LOAD

The semester course load of a full-time graduate student is 9 hours. The maximum load for a full-time student is 12 credits in any fall or spring semester or combined summer sessions. Any course load greater than 12 credit hours must be approved by the assistant vice president for graduate studies upon the petition of the school dean.

End of Policy (Approved March 15, 2011)

TUITION AND FEES

PAYMENT OF EDUCATION COSTS

Payment of tuition and fees is due at the Business Office on the date indicated on the student's bill. Any financial aid awarded will be deducted from the student's charges each semester. Each student is responsible for purchasing books using funds from personal and/or financial aid sources. Any student with outstanding financial obligations to the University will not be permitted to register for any subsequent semester or receive a transcript or diploma until the obligation is fulfilled. Students maintaining a balance owed to the University will be assessed late fees and will be responsible for collection and/or costs if such efforts should become necessary.

APPLICATION FEE

There is no application fee for online applications.

TUITION RATE

A per credit hour fee is charged for each course and is subject to change. Please visit trine.edu to learn about the current rate or contact the appropriate Program Director for current fee and tuition information.

AUDITING FEE

A fee is charged per credit hour for auditing courses. To learn the amount of this fee, call the Business Office at 260.665.4108.

TRANSCRIPT FEE

A per copy fee is assessed for issuance of official Trine University transcripts. A transcript will not be issued to a student with an outstanding financial obligation to the University.

OTHER COSTS

BOOKS AND SUPPLIES

Book and supply expenses vary depending on the number of courses taken and the major, and are the personal obligation of each student. Students can order books from the Trine University bookstore through the online order process or in person. Books ordered online will be mailed directly to the student.

REFUNDS

Refunds of credit balances due to excess financial aid or overpayment will be refunded after the drop/add period. A student withdrawing from a course may be eligible for a full or partial refund of tuition, depending on when the official withdrawal takes place. All refund requests must be made by the student. Please visit trine.edu/admission/adult_students/financial_aid to access the refund request form.

A student is not officially withdrawn until the necessary withdrawal forms, complete with the required signatures, have been filed with the Office of the Registrar. Anything other than an official withdrawal does not permit refunds. Refunds follow the schedule below.

TUITION:

- Week one—100%

A \$50 administration fee will be assessed for “exception” drops (per occurrence).

Please note: If a student receiving financial aid withdraws during the semester, that aid is subject to the federal refund calculation.

Refunds are processed through the Business Office approximately one month after a student officially withdraws and all charges/credits are posted.

The official withdrawal form is required for a refund to be processed.

Any student who is dismissed or suspended for misconduct shall not be entitled to any refund. No refund is provided at any time on fees, books and supplies, or personal expenses.

WITHDRAWAL

If a student decides to drop or withdraw after registering for classes:

- The student is responsible for completing the proper paperwork with the program director. By failing to do so, the student accepts financial responsibility for all charges incurred on their account.
- The student may be eligible for a refund depending on when the official withdrawal takes place.
- It may result in a change in the total amount due for the semester.
- It may result in a loss of financial aid from a federal or state source.
- Failure to attend classes does not constitute a drop/withdrawal.

OFFICE OF FINANCIAL AID

PURPOSE

The Office of Financial Aid provides assistance to students to make a college career at Trine University affordable. To provide such assistance allows students to attend who might otherwise not have the opportunity. Loans are awarded based upon financial need as determined by the federal government after completion of the Free Application for Federal Student Aid (FAFSA).

GRADUATE PROGRAM

All information listed must be followed for the graduate program. The graduate student is not eligible for grant money from the state or federal government. Graduate students may however receive Stafford loans. Subsidized Stafford loans are awarded on the basis of financial need. Unsubsidized Stafford loans are not awarded on the basis of need.

FINANCIAL AID APPLICATION PROCEDURES

All students applying for financial aid must complete the Trine University application for admission to be accepted into a degree-seeking program and complete a FAFSA.

The FAFSA is the primary application for assistance. This can be filed on the Web at www.fafsa.gov it is used to determine eligibility for Direct Loan Programs.

Aid is awarded throughout the school year. Current students need only complete the FAFSA once each school year. Trine University's school code for the FAFSA is 001839.

DIRECT LOAN PROGRAM

A subsidized loan is awarded on the basis of financial need. The student is not charged interest until repayment begins because the federal government "subsidizes" the interest. These loans have a 10-year payoff and a six-month grace period beginning after the student leaves college, either by graduation or withdrawal from the University, or by dropping below half-time status.

An unsubsidized loan is not awarded on the basis of need. A student must be enrolled half-time to be eligible. There are maximum amounts a student can borrow, which is based upon grade level. A student is charged interest from the time the loan is disbursed until it is paid in full. A student can choose to pay the interest while enrolled in school or defer those payments until repayment. These loans also have a 10-year payoff and a six-month grace period.

GRAD PLUS INFORMATION

Direct Grad PLUS Loan

If you need to borrow funds beyond the federal direct subsidized and unsubsidized loan limits, you may be able to participate in the Federal Direct Grad PLUS Loan program. The Grad PLUS Loan will have a fixed 7.9 percent interest rate, 2.5% (4% with an upfront interest rebate of *1.5%) *To keep an upfront interest rebate, student must make all of first 12 required monthly payments on time or will lose the rebate. If student loses the rebate, the rebated amount will be added back to the principal balance on the loan(s), which will increase the amount of repayment.

Eligibility

- Must complete a Free Application for Federal Student Aid (FAFSA)
- Must be admitted to a graduate or professional program
- Must be a U.S. citizen or eligible non-citizen
- Must be enrolled at least half-time
- Must not have adverse credit history as determined by federal regulations
- Must not be in default on any student loan

Must have exhausted all Direct Stafford Subsidized and Unsubsidized Loan Limits prior to utilizing this Grad PLUS loan.

Credit checks

While credit checks are required to be eligible, credit criteria are less restrictive than those for most private student loans. If you do not meet the credit requirements, you may still qualify for the loan if you have someone who does meet the credit requirements endorse the loan. An endorser, unlike a co-signer, is not liable for your Graduate PLUS loan debt if you become permanently disabled or die.

How does the process begin?

To apply, complete the **Free Application for Federal Student Aid (FAFSA)**. You must first be offered subsidized and/or unsubsidized direct loans. You must accept, reduce, or decline these loans prior to requesting the Direct Grad PLUS Loan.

Master promissory note

Before the loan can be disbursed, you must complete a separate MPN. Read carefully all of the terms and conditions of the Grad PLUS Loan explained in the MPN. By signing the MPN, you promise to repay the loan. You can sign the required MPN electronically with your U. S. Department of Education-issued PIN. If you don't already have their PIN, you can request one on the official PIN site.

The Grad PLUS MPN can be used for one or more loans in one or more academic years. This means that, in most cases, you may receive additional Direct PLUS loans for up to 10 years without completing a new PLUS MPN.

Entrance counseling

First-time borrowers under this loan program are required to complete entrance counseling. Your loan(s) will not disburse until you have successfully completed the entire entrance counseling process.

Complete the session online at the U.S. Department of Education's site www.studentloans.gov.

Once at the site, log in and select Entrance Counseling. Make the selection corresponding to your loans:

- If you are new only to the Graduate PLUS loan program, select the middle option.
- If you are a first time borrower to both the Graduate PLUS loan program and the Ford Federal Direct Subsidized/Unsubsidized Loan program, select the third box and you will fulfill the entrance counseling requirement for both loan types.

Make sure to print a copy of the Borrower's Rights and Responsibilities for your records.

Renewal

Awards cannot be automatically renewed. Students must apply annually and continue to meet the eligibility requirements listed above.

Repayment

A Graduate PLUS borrower will receive a deferment while he or she is enrolled at least half-time at an eligible school. Upon dropping to less than half-time enrollment status, the borrower is not entitled to a grace period on his or her PLUS loans and repayment will begin within 45 days. The length of repayment and monthly payment amounts depend on the outstanding loan balance, the interest rate, and repayment policies. Interest on the Federal Direct Graduate PLUS Loan begins to accumulate at the time the first disbursement is made.

Maximum Loan Amounts

The maximum Graduate PLUS Loan you may borrow per academic year is equal to your cost of attendance minus other financial aid (including Federal Direct Subsidized and/or Federal Direct Unsubsidized Loans for which you are eligible). There is no aggregate maximum loan limit for the Graduate PLUS Loan.

Your eligibility for a Graduate PLUS will be reduced accordingly if you borrow a private loan through an outside banking institution.

William D. Ford Grad PLUS Loan Program	
Eligibility Requirements	<ul style="list-style-type: none">• US citizen or permanent resident• Enrolled at least half-time in degree program• Not in default on prior education loan• Credit review required
Annual Loan Limits	Borrow up to the cost of attendance less other aid (including maximum Direct)

Aggregate Loan Limits	No aggregate limit
Interest Rates	7.9% fixed rate. Interest will begin to accrue once the loan is disbursed.
Fees	4.0% less 1.5% interest rebate for a total of 2.5%.
Rebate	Once in repayment, you must make 12 required monthly payments on time or the rebate amount will be added back to the principal balance on your loan.
Source	U.S. Department of Education, which can be contacted at 800-848-0979 or www.ed.gov/directloan .
Disbursement	Twice a year, at the beginning of each term.
Repayment	Begins 60 days after last disbursement of loan; however, students with enrollment status of at least half-time will be eligible for a continuing education deferment of repayment.
Special Repayment Provisions	<ul style="list-style-type: none"> · Income Based Repayment · Public Service Cancellation
Length of Repayment	Standard 10-year repayment for loan borrowing under \$30,000. Extends to 25 years over \$30,000.

ELIGIBILITY

Additional awards may be available to a student with extreme economic need, after his or her FAFSA has been received by the March 10 priority deadline. Eligibility requirements and responsibilities for need-based assistance are as follows:

1. Student must be a U.S. citizen or an eligible non-citizen.
2. Student must be admitted and enrolled at least half-time to Trine University.
3. Student must submit documentation to complete his or her financial aid file.
4. Student must be enrolled in the minimum number of credit hours needed to fulfill specific program requirements.
5. Student must complete the FAFSA.
6. Student must be accepted as a regular student in an eligible program that leads to a degree.
7. Student must not be in default on any Title IV loan (Perkins, NDSL, Federal Stafford, GSL, FSL) or owe a repayment on any Title IV grant (Federal Pell Grant, FSEOG, ACT, SMART, or TEACH grant) received for attendance at any institution.
8. Student must be registered with the U.S. Selective Service System if required by law.

DISBURSEMENT

Aid will be disbursed as follows and based on eligibility at the time of disbursement: one half of Stafford Loans approximately four weeks into the first term with all other state aid, other half of Stafford Loans to disburse approximately four weeks into the second term. Aid is subject to change based on a student's enrolled hours at the time of disbursement. This aid is credited to the student's account in the Business Office.

ENROLLMENT STATUS

Each type of aid requires students to enroll for a certain number of credit hours per two-term semester. Most federal aid requires at least half-time status (six credit hours); state and private aid requires full-time enrollment (a minimum of 12 credit hours). The maximum load for full-time graduate students is 12 credit hours per semester.

MAINTAINING ELIGIBILITY

Currently enrolled students are required to maintain the appropriate grade point average for their financial aid and may reapply for aid in the spring for the next academic year.

STUDENT RIGHTS AND RESPONSIBILITIES

Trine University is committed to working with each student to provide the best financial aid package possible. At the same time, each student has the responsibility to apply for the aid and to meet and maintain eligibility requirements. Following is a list of basic rights and responsibilities of the students in regard to financial aid:

- Students must apply for financial aid by completing a FAFSA a minimum of eight-ten (8-10) weeks prior to the start of the term.
- Financial aid information and counseling will be available.
- Students will be notified in writing of their eligibility for financial aid.
- Students will be informed of the specific type of financial aid, the amount of each type of aid and the conditions to renew each type.
- Students will have the opportunity to review with the SPS Financial Aid Adviser the planning process by which awarded aid was determined.
- Students may request an additional review of their aid package with the director of financial aid.
- All students who receive financial aid are required to abide by the policies and regulations of Trine University.
- Students receiving financial aid must inform the Office of Financial Aid about additional awards.
- Students must maintain satisfactory academic progress toward academic goals.
- Students must maintain good social standing.
- Students must reapply for financial aid annually.
- Students must report to the Office of Financial Aid when transferring to another school.
- If applicable, students must participate in the Federal Stafford Graduate Loan entrance and exit interviews.
- Students must report to the Office of Financial Aid when adding or dropping classes after the term begins.

APPEALS

Appeals to financial aid decisions can be filed with the director of financial aid, who will present them to the financial planning review committee. Appeals must be filed in a timely manner. Not all students will be eligible for an appeal.

REFUNDS AND REPAYMENTS

If a student withdraws from classes during the semester, a calculation is required to determine how much money may be refunded to the student's account and how much must be refunded back to the federal programs.

COUNSELING SERVICES

Counseling Services provides assistance and support to students on an individual or group basis. All counseling is provided free of charge and is strictly confidential. The Trine University counselor is a state licensed clinician who is experienced in providing services for a wide array of personal and/or mental health needs. Other areas in which students may seek services include stress management, decision-making, relationship issues, conflict resolution, family concerns, academic performance, career/major selection, separation and loss issues, alcohol or substance use, as well as other matters which may be detrimental to a successful college experience.

Counseling Services also provides outreach and consultation to regional education center organizations, groups or classes. Outreach programs are available to provide prevention education for a variety of topics, such as balancing responsibilities, developing healthy relationships, enhancing personal safety, confronting alcohol and/or drug use, and any other issues of primary concern to students.

Counseling Services is located in the Office of Student Life Office 260.665.4172 in the University Center. The counselor is available by appointment weekdays from 8 a.m. to 5 p.m. Evening appointments are available upon request.

DISCIPLINE STRUCTURE

See SPS Student Handbook

CAREER SERVICES

Our goal is to equip you with the tools you need to get major-related work experience prior to graduation and to help you secure a full-time job upon graduation. We offer one-on-one counseling, workshops with guest speakers, and host alumni and employers who visit campus for recruiting. We provide assistance with the following:

- Resume/Cover Letter Writing
- Interviewing Techniques
- Job Search Strategies
- Employer Information sessions

- On-campus Interviews
- Career & Internship Fairs
- Internships and co-ops
- Networking
- Career Planning/Graduate School

Join our Facebook group, “Trine University Career Services” to get instant updates on what’s happening. Get to know us prior to your part-time, internship, co-op, and/or full-time job search. Register with our office at www.trinecareers.org and stop in to introduce yourself. Career Services is located on the first floor of Shambaugh Hall on the main campus. For more information, contact Linda Bateman, Director of Career Services, at 260.665.4124 or batemanl@trine.edu.

SCHOOL OF PROFESSIONAL STUDIES GRADUATE PROGRAMS

The School of Professional Studies offers the following graduate degree programs through Trine University at all SPS locations.

- Master of Science with a Major In Criminal Justice
 - Emergency Management concentration
 - Forensic Psychology concentration
 - Public Administration concentration
- Master of Science in Leadership
 - Athletic Administration
 - Biomedical Regulatory Affairs concentration
 - Healthcare Systems Studies concentration
 - Instructional Leadership Higher Education concentration
 - Instructional Leadership K-12 Concentration
 - International Studies concentration
 - Non-Profit Organization Studies concentration
 - Political Leadership & Civic Engagement concentration
 - Strategic Foresight and Entrepreneurship concentration
 - Sustainable Business Administration concentration

GRADUATE ADMISSION CRITERIA

MASTER OF SCIENCE WITH A MAJOR IN CRIMINAL JUSTICE

The Master of Science with a major in criminal justice degree program is open to persons holding bachelor’s degrees in a social science field from regionally accredited colleges and universities and whose undergraduate work has been of sufficient quality and scope to enable them to successfully pursue graduate study. An undergraduate degree in criminal justice is preferred; however, if the undergraduate degree is other than criminal justice, a core of criminal justice prerequisite courses will be required. At the discretion of the SPS Director of Criminal Justice, these course prerequisites may be waived for applicants who have a significant amount of documented professional experience with a criminal justice agency.

A candidate for the master’s program must have the following:

- A Bachelor of Science degree (or equivalent) with a general education component from a regionally accredited institution.
- A minimum composite undergraduate grade point average (GPA) of 3.0 on a 4.0 scale.
- An official transcript showing a bachelor’s degree awarded by an accredited college or university with an acceptable grade point average.

Conditional admission may be determined by the SPS Director of Criminal Justice as described in “Admission Classification” section of University Graduate Policy.

A maximum of six hours of credit from another accredited graduate program may be transferrable, upon approval of the SPS dean. Graduate courses taken and applied to the Bachelor of Science degree in criminal justice will not apply to the graduate program.

Students must have a 3.0 GPA to graduate. Students who drop below a 3.0 GPA at any time in the program will be dismissed.

DESCRIPTION: MASTER OF SCIENCE WITH MAJOR IN CRIMINAL JUSTICE

The Master of Science with a major in criminal justice is an accelerated degree program that provides education for both pre- and mid-career individuals serving their communities as law enforcement, corrections, court practitioners or with private agencies that deliver services in the justice arena. The curriculum is designed to prepare these professionals to assume key leadership roles within the justice system or the private sector by enhancing their ability to:

- Analyze information, identify emerging trends, and implement solutions to crime problems
- Evaluate agency performances and plan for increased effectiveness
- Successfully manage human and financial resources in the public arena

We define the justice system as a continuum of interrelated processes, personnel, and agencies from prevention of crime through the reintegration of offenders into society.

MASTER OF SCIENCE WITH MAJOR IN CRIMINAL JUSTICE COURSE REQUIREMENTS

Master of Science with Major in Criminal Justice with a concentration in Public Administration 36 Hrs.				Demonstration Project (3)			
Program Requirements				Forensic Psychology Concentration 15 Hrs.			
Major Area							
Criminal Justice Core							
Required Hours							
36 Hrs.							
21 Hrs.							
CRJ	503	Seminar in Law and Social Control	(3)	FPY	603	Theory & Practice of Forensic Psychology	(3)
CRJ	513	Criminology	(3)	FPY	613	Psychopathology	(3)
CRJ	523	The American System of Justice	(3)	FPY	623	Evaluation & Treatment of Specialized Populations	(3)
CRJ	533	Criminal Justice Policy Formation and Analysis	(3)	FPY	643	Victimology	(3)
CRJ	553	Applied Statistics for Criminal Justice	(3)	FPY	693	Forensic Psychology Demonstration Project	(3)
CRJ	563	Planning, & Program Evaluation	(3)	Public Administration Concentration 15 Hrs.			
CRJ	593	Demonstration Project Capstone	(3)	CRJ	603	Theory and Practice of Public Administration	(3)
Emergency Management Concentration 15 Hrs.				CRJ	613	Public Organizational Behavioral & Human Resource Management	(3)
EM	503	Advanced Principles of Emergency Management	(3)	CRJ	623	Governmental Accounting, Finance & Budgeting	(3)
EM	513	Seminar in Hazard Mitigation	(3)	CRJ	643	Law and Public Policy	(3)
EM	623	Comprehensive Risk Assessment & Vulnerability	(3)	CRJ	693	Public Administration Demonstration Project	(3)
EM	653	Managing Disaster Relief and Recovery Operations	(3)				
CRJ	693	Public Administration					

GRADUATE ADMISSION CRITERIA

MASTER OF SCIENCE IN LEADERSHIP

The Master of Science in Leadership degree program is open to persons holding a bachelor's degree in a business, engineering, arts or sciences field from a regionally accredited college or university and whose undergraduate work has been of sufficient quality and scope to enable them to successfully pursue graduate study. Admission requirements include:

- A completed application form.
- An official transcript showing a bachelor's degree with a general education component awarded from a regionally accredited institution.
- A minimum composite undergraduate grade point average (GPA) of 3.0 on a 4.0 scale.
- Applicants whose native language is not English must have a minimum score of 550 on the paper-based or 213 on the computer-based test of English as a foreign language (TOEFL).

Conditional admission may be determined by the SPS Leadership Program Director as described in “Admission Classification” section of University Graduate Policy.

Up to six credits earned at an approved institution with grades of “C” or better may be transferred to Trine University. Credits a student wishes to transfer toward a Trine University degree shall be evaluated and approved by the regional education center where the student is enrolled. Official transcripts must be received in order for college credit to be awarded. Credits earned toward an undergraduate degree will not be considered for transfer toward the master’s degree.

Students must have a 3.0 GPA to graduate. Students who drop below a 3.0 GPA at any time in the program will be dismissed.

DESCRIPTION: MASTER OF SCIENCE IN LEADERSHIP

The Master of Science in Leadership (MSL) program is designed to provide advanced training in people- and problem-oriented competencies with skills that determine success. This organizational leadership program is aimed at students who have achieved undergraduate degrees in a variety of professional content areas, thus meeting the needs of a wide range of the adult market. The program will provide advanced theory and training in organizational management, decision-making, problem solving and leadership skills so that individual s may progress in their career journeys and are currently employed in professional occupations in which visionary leadership is a necessary and valuable asset. The degree program promotes and encourages lifelong learning for those involved in a variety of fields in which visionary, strategic leadership is requisite to success.

The goal of the MSL program is to equip professionals with the theoretical and applied leadership knowledge, capabilities, and characteristics needed to positively impact organizations across multiple sectors. The program objectives are:

Objective #1: Graduates will exhibit ethical, vision-oriented leader behaviors capable of creating a dynamic environment.

Objective #2: Graduates will exhibit comprehensive understanding of the cultural landscape of organizations and implications for leading and building effective communities at all levels.

Objective #3: Graduates will apply sustainable business practices and strategies that will maintain success in a global economy.

Objective #4: Graduates will employ organizational behavior strategies that provide leadership for effective change management within the context of organizational goals.

Objective #5: Graduates will utilize strategic information to design and monitor organizational communication, capabilities, and performance.

The Master of Science in Leadership degree requires the completion of 36 semester credit hours, 24 of which are core for all students, and 12 of which are clustered into one of six concentration areas: biomedical regulatory affairs, healthcare systems studies, international studies, non-profit organization studies; strategic foresight and entrepreneurship, or sustainable business administration. Cohort groups will progress through a series of twelve 8-week, three-credit hour classes over the span of 12 months to complete the Master’s degree.

MASTER OF SCIENCE IN LEADERSHIP COURSE REQUIREMENTS

Master of Science in Leadership	36 Hrs.	LDR	5003	Leadership Philosophy	(3)
Program Requirements	Required Hours	LDR	5023	Strategic Leadership	(3)
Leadership Core	21 Hrs.	LDR	5043	Organizational Systems and Cultures	(3)

LDR	5063	Organizational Development and Change	(3)			Standards-driven Curriculum	(3)
LDR	5083	Conflict Resolution for Leaders	(3)	LDR	6543	Systematic Improvement of Instructional Practices	(3)
LDR	5203	Leadership Ethics, Culture, and Politics	(3)				
LDR	5223	Organizational Communications for Leaders	(3)	LDR	6566	Instructional Leadership Capstone K-12	(6)
Athletic Administration Concentration 15 Hrs.				International Studies Concentration 15 Hrs.			
LDR	6703	Foundations of Athletic Administration	(3)	LDR	6003	Fundamentals of Global Business Leadership	(3)
LDR	6723	Legal and Ethical Issues in Athletic Administration	(3)	LDR	6023	International Marketing and Economics for Leaders	(3)
LDR	6743	Athletic Facility and Event Management	(3)	LDR	6043	Global Logistics and Supply Chain Management for Leaders	(3)
LDR	6766	Athletic Administration Capstone Course	(6)	LDR	6066	International Studies Capstone	(6)
Biomedical Regulatory Affairs Concentration 15 Hrs.				Nonprofit Organizational Studies Concentration 15 Hrs.			
LDR	6103	Introduction to Biomedical Regulatory Affairs	(3)	LDR	6203	Nonprofit Sector Foundations	(3)
LDR	6123	Product Development and Manufacturing Systems	(3)	LDR	6223	Economic Sustainability of Nonprofit Organizations	(3)
LDR	6143	Product Testing, Evaluation, Clinical Trials, and Post-Market Issues	(3)	LDR	6243	Quantitative Methods for Nonprofit Organization Planning and Evaluation	(3)
LDR	6166	Biomedical Regulatory Affairs Capstone	(6)	LDR	6266	Nonprofit Organization Studies Capstone	(6)
Healthcare Systems Studies Concentration 15 Hrs.				Political Leadership & Civic Engagement Concentration 15 Hrs.			
LDR	6803	Leadership and Management of Healthcare Systems	(3)	LDR	6303	Political Marketing and Management	(3)
LDR	6823	Legal and Ethical Issues in Healthcare Leadership	(3)	LDR	6323	Leading Community Engagement	(3)
LDR	6843	Organization and Economics of Healthcare Delivery Systems	(3)	LDR	6343	Public Governance and Servant Leadership	(3)
LDR	6866	Healthcare Leadership Capstone	(6)	LDR	6366	Political Leadership & Civic Engagement Capstone	(6)
Instructional Leadership – Higher Education Concentration 15 Hrs.				Strategic Foresight & Entrepreneurship Concentration 15 Hrs.			
LDR	6513	Students and Stake holders in the Higher Education Environment	(3)	LDR	6403	Fundamentals of Foresight and Entrepreneurship	(3)
LDR	6533	Teaching and Learning in Higher Education	(3)	LDR	6423	Feasibility Analysis for New Ventures	(3)
LDR	6553	Principles and Practices of Academic Advising	(3)	LDR	6443	Business and Marketing Plans for New Ventures	(3)
LDR	6576	Instructional Leadership Capstone Course – Higher Education	(6)	LDR	6466	Global Entrepreneurship Capstone	(6)
Instructional Leadership – K-12 Concentration 15 Hrs.				Sustainable Business Administration Concentration 15 Hrs.			
LDR	6503	Foundations of Instructional Leadership	(3)	LDR	6603	Leading the Sustainable Business	(3)
LDR	6523	Designing, Managing, and Monitoring		LDR	6623	Business Management and	

		Environmental Leadership	(3)	LDR	6666 Sustainable Business Administration	
LDR	6643	Sustainability and Business Opportunity	(3)		Capstone	(6)

GRADUATE COURSE DESCRIPTIONS

KEY TO COURSE PREFIXES

CRJ Criminal Justice
EM Emergency Management
LDR Leadership

COURSE NUMBERING SYSTEM

Course numbers are found at the beginning of the course description immediately following the course prefix.

Courses numbered 500/5000: Graduate-level courses
Courses numbered 600/6000: Graduate-level courses

EXAMPLE OF COURSE PREFIX AND NUMBER

AC 303: This course prefix and number means that this is an Accounting junior level course.

COURSE TITLE

The course title follows the course prefix and number.

COURSE DESCRIPTIONS

CRIMINAL JUSTICE GRADUATE COURSES

CRJ 503 SEMINAR IN LAW AND SOCIAL CONTROL 3 CR

An introduction to legal theory and the moral, practical and legal implications of law as a means of maintaining social order. The course will also examine the impact of economic and political forces on social control.

CRJ 513 CRIMINOLOGY 3 CR

The study of the nature, extent, cause and control of criminal behavior. Students will examine the ways in which crime is measured, identify various crime typologies, and explore a wide range of crime causation theories.

CRJ 523 THE AMERICAN SYSTEM OF JUSTICE 3 CR

An examination of the core components of the criminal justice system: courts, law enforcement, and correctional agencies. Particular emphasis will be placed on the interrelationship between the various components as they attempt to meet their individual mandates.

CRJ 533 CRIMINAL JUSTICE POLICY FORMATION AND ANALYSIS 3 CR

A study of the methodology behind law, statute and policy creation in the public criminal justice arena. Includes a discussion of the American political system and an evaluation of key public policies that impact the justice system.

CRJ 553 APPLIED STATISTICS FOR CRIMINAL JUSTICE 3 CR

The study of data analysis as it relates to the social sciences. Topics will include inductive and descriptive analysis, sampling, and methods of evaluation. The emphasis will be on practical application of statistics to criminal justice situations.

CRJ 563 PLANNING, & PROGRAM EVALUATION 3 CR

An overview of program planning and intervention principles for the public administrator. Students will review methodologies for identifying public issues, planning for them, and assessing outcomes. Attention will also be given governmental policies as they impact program planning.

CRJ 593 DEMONSTRATION PROJECT CAPSTONE 3 CR

An in-depth application of the concepts contained in the core courses. Under the direction of a criminal justice faculty member, the student will design, research, and complete a project that will then be formally presented to a committee of at least two full-time or adjunct professors.

CRJ 603 THEORY AND PRACTICE OF PUBLIC ADMINISTRATION 3 CR

An examination of factors that impact public administration, including organizational design, political relationships, and the environment, with an emphasis on ethical behavior in the public arena.

CRJ 613 PUBLIC ORGANIZATIONAL BEHAVIORAL AND HUMAN RESOURCE MANAGEMENT 3 CR

A study of the importance of organizational planning, quality decision-making, and budget management. The course will also examine the methods and procedures necessary for managing in the public arena.

CRJ 623 GOVERNMENTAL ACCOUNTING, FINANCE AND BUDGETING 3 CR

An in-depth look at accounting, finance and budgeting practices in public administration, including fundamental concepts of accounting principles.

CRJ 643 LAW AND PUBLIC POLICY 3 CR

This course provides an overview of several key legal issues faced by administrators within criminal justice public agencies. It focuses on statutory and Constitutional public employment rights and the Constitutional limitations on these administrators' interactions with prisoners, probationers and parolees. It also addresses core issues faced by public managers in the field of administrative law.

CRJ 693 PUBLIC ADMINISTRATION DEMONSTRATION PROJECT 3 CR

An in-depth analysis of the concepts contained within the concentration courses. Conducted under the direction of a criminal justice faculty member, the student will design and implement a capstone project, and then present the results to a committee of at least two full-time or adjunct professors with public administration experience.

EM 503 ADVANCED PRINCIPLES OF EMERGENCY MANAGEMENT 3 CR

This course prepares the emergency manager to assess, mitigate and manage emergencies that impact our communities in accordance with national standards. Emphasis is placed on the roles of government agencies—local, state, and federal—and the facilitation of strategic plans that address unique community situations. A global perspective for emergency management activities is stressed.

EM 513 SEMINAR IN HAZARD MITIGATION 3 CR

The focus of this course will be to equip emergency managers to address principles of community resilience for both natural and man-made disasters, to implement formal risk assessments, and to involve private sector entities in mitigation strategies. Particular emphasis will be placed on the development and facilitation of a formalized planning process in the successful mitigation of potential hazards.

EM 623 COMPREHENSIVE RISK ASSESSMENT AND VULNERABILITY 3 CR

This is a project-based course that integrates hazard, risk, and vulnerability analyses within a comprehensive disaster management strategy. A focus will be on assisting local communities to assess their unique vulnerabilities and develop policies and processes that mitigate those hazards. Special attention will be placed on maintaining business contingency plans and continuity of operations.

EM 653 MANAGING DISASTER RELIEF AND RECOVERY OPERATIONS 3 CR

This course is designed to develop competency in damage assessment, disaster declaration, and debris management for both natural and man-made disasters. The focus will be on supervising programs and personnel in accordance with national standards, policies, and procedures, as well as on providing leadership for recovery solutions and future disaster mitigation.

EM 693 EMERGENCY MANAGEMENT DEMONSTRATION PROJECT 3 CR

An in-depth analysis of the concepts contained within the concentration courses. Conducted under the direction of a criminal justice faculty member and a professional emergency management specialist, the student will design and implement a capstone project, and then present the results to a committee of at least two full-time or adjunct professors, one of which has professional emergency management or first responder experience.

FPY 603 THEORY & PRACTICE OF FORENSIC PSYCHOLOGY 3 CR

A study of the fundamental elements encompassing the practical and research application of forensic psychology. Students will examine the variables associated to: (a) ethical issues, (b) psychological assessment, (c) police and correctional psychology, (d) child custody evaluations, (e) trial consultation procedures, (f) criminal investigative techniques, (g) eyewitness memory, and (h) insanity pleas and competency evaluations. Prerequisites: Completion of all MSCJ core courses

FPY 613 PSYCHOPATHOLOGY 3 CR

An in-depth analysis of mental illness and its association with criminal behavior, to include identification of patterns of psychopathy and sociopathy and the comparison of disparities and similarities between the two,. Various disorders will be examined and applied the causation of crime. This course will also examine the DSM-IV in relation to criminal behavior. **Prerequisite: FPY 603**

FPY 623 EVALUATION & TREATMENT OF SPECIALIZED POPULATIONS 3 CR

This course provides an overview of the methods and modalities utilized to assess and treat sex offenders, substance abuse offenders, juveniles, and domestic violence perpetrators. Students will concentrate on each classification and interrelationships associated to application, treatment, assessment, and evaluation of the variables accompanying each classification . **Prerequisite: FPY 603**

FPY 643 VICTIMOLOGY 3CR

This course involves the study of victims and witnesses of crime. An emphasis will be placed on the psychological and emotional detriments associated with being victimized an the classification of the types of victims. Criminological theory will be applied to address the reasons that certain victims are more attractive to offenders than others, and to examine a victim's reaction to crime. **Prerequisite: FPY 603**

FPY 693 FORENSIC PSYCHOLOGY DEMONSTRATION PROJECT 3CR

An in-depth analysis and synthesis of the concepts contained within the concentration courses. Conducted under the direction of a criminal justice faculty member the student will design and implement a capstone project, and then present the results to a committee of two full time or adjunct professors who specialize in criminal justice and/or forensic psychology. **Prerequisites:** FPR 603, FPY 613, FPY 623, and FPY 643

LEADERSHIP GRADUATE COURSES

LDR 5003 LEADERSHIP PHILOSOPHY 3 CR

An exploration of the nature of business leadership models and theories, examining these models through a broad variety of insights and viewpoints. Provides a description and analysis of these approaches to leadership, giving special attention to how the models can improve leadership in the real-world organization.

LDR 5023 STRATEGIC LEADERSHIP 3 CR

A study of the formulation of strategy and policy in the organization, emphasizing the integration of strategic decisions across the functional areas and across multiple business units. Significant emphasis is placed on the critical role that leaders play in driving organizational success while concurrently ensuring ethical soundness.

LDR 5043 ORGANIZATIONAL SYSTEMS AND CULTURES 3 CR

This course will equip students to fully understand the complexities of organizational systems and cultures, the ways in which these forces manifest themselves, and the means by which leaders intentionally impact the shape that these forces take in their organizations. Students will explore the application of various organizational systems and cultures theories to case studies, as well as to their current professional settings. Additionally, students will research and critically analyze the comparative cultures of two organizations from the same industry. The findings related to this research will be presented in the form of an Executive Presentation and related written analysis report. **Prerequisites:** LDR 5003, LDR 5023

LDR 5063 ORGANIZATIONAL DEVELOPMENT AND CHANGE 3 CR

An exploration of the behavioral forces and relationships that influence organizational effectiveness and change. Topics include the study of intervention strategy and application skills. **Prerequisites:** LDR 5003, LDR 5023

LDR 5083 CONFLICT RESOLUTION FOR LEADERS 3 CR

Conflict is a fact of everyday professional and personal life. If conflict is mishandled, it can be a source of considerable stress and lead to lost productivity. Much of the success and satisfaction we find in life is determined by how we respond to conflict. Leaders especially must respond well in conflict situations and should willingly accept the consequences of their conflict responses. This course explores theories, methods, skills, and practices associated with successfully engaging in the dynamics of conflict interactions. **Prerequisites:** LDR 5043, LDR 5063

LDR 5203 LEADERSHIP ETHICS, CULTURE, AND POLITICS 3 CR

This course compares and contrasts the disciplines of leadership with an emphasis on fostering organizational culture and personal ethics. Topics will include historical and contemporary leadership theories applied across a wide variety of organizational contexts. **Prerequisites:** LDR 5043, LDR 5063

LDR 5223 ORGANIZATIONAL COMMUNICATIONS FOR LEADERS 3 CR

This course is designed to examine the theoretical and applied literature in the field of organizational communication relevant to organizational leadership. The different perspectives on organizational theory — the classical, systems approach, cultural, etc. — will be studied and compared. In addition, such applied topics as organizational socialization,

conflict, and the impact of technology on organizational communications will be investigated. **Prerequisites:** LDR 5083, LDR 5203

LDR 6003 FUNDAMENTALS OF GLOBAL BUSINESS LEADERSHIP 3 CR

This course provides students with a practical but intellectually challenging roadmap to their development as international business leaders. Different challenges and insights provided by leaders from industry and government enable students to explore leadership as a concept and as a vocation. Students will understand the dynamics of the worldwide marketplace, evaluate the different dimensions of international business, and examine leadership traits and skills managers must possess to effectively lead in rapidly expanding and volatile global economy. They will study management practices of global leaders while identifying the drivers of international business. Students will learn how to recognize and how to work through many of the barriers, challenges, and differences of international business to become global leaders.

Prerequisites: All LDR core courses or admission to the concentration

LDR 6023 INTERNATIONAL MARKETING AND ECONOMICS FOR LEADERS 3 CR

Post W.W.II, the trend toward freer trade and accelerating technological change, has been altering the world's economic landscape via the process of globalization. The recent drift toward regionalism (e.g., unifying European and North American markets), the collapse and subsequent restructuring of many of the world's national economies such as in the Soviet and Eastern European economies, have served as massive economic experiments. Global recession and recovery have been studied to glean what has worked and what has failed in each of these examples yielding critical information for future marketing strategies. This course is designed to introduce some of the key issues of these international events that can be incorporated into multinational marketing. This class will focus on issues involved in marketing products and services across national boundaries. Culture, economic arrangements, technical standards, currency movements, language, religion, ideology, politics, distance and conflicting interpretations of national and global interests combine to complicate the administration of marketing's familiar 4-Ps cross-nationally. This course uses a combination of lectures, global marketing cases, discussion, and mini projects to examine specific issues currently involved in multinational marketing strategies. In addition, students will study the concepts of international finance (international monetary relations) and financial policies, international loans, balance of payments accounting, exchange rates, reserve and payments currencies, and international liquidity. Of particular interest is the impact of the U.S. economy of international financial developments. Balance of payments adjustment under fixed and flexible exchange rates and under the gold standard will be considered in detail. **Prerequisites:** All LDR core courses or admission to the concentration

LDR 6043 GLOBAL LOGISTICS AND SUPPLY CHAIN MANAGEMENT FOR LEADERS 3 CR

This course demands from students to develop cutting-edge logistics strategies to gain competitive advantage and a comprehensive understanding of managing logistics in a global setting. It covers principles of logistics activities in international business with special emphasis on transportation, global sourcing, customs issues, import-export opportunities, customs documentation, and the role of government in international transactions, customer service, information technology, and global supply chain management. Special emphasis is placed on current events and their effect on the marketing and logistics activities of global organizations. Students will evaluate the advantages and disadvantages of the location of different facilities in a global context, and the tangible and intangible resources required for effective supply chain decision making. They will coordinate logistics activities across supply chains and choose between different options for effectively delivering logistics services. **Prerequisites:** All LDR core courses or admission to the concentration

LDR 6066 INTERNATIONAL STUDIES CAPSTONE 6 CR

This course is designed to provide a capstone or conclusion to the International Studies Concentration. Its objective is to provide an opportunity to conduct independent research on an International Studies theme, analyzing a contemporary policy issue. The topic will be selected by the students, so that they can integrate the linkages between the themes, areas,

and disciplinary foci of study, and apply the analytical frameworks, professional writing, research, and leadership skills acquired during the program. **Prerequisites: All LDR core courses LDR 6003**

LDR 6103 INTRODUCTION TO BIOMEDICAL REGULATORY AFFAIRS 3 CR

This course surveys government oversight of devices and biotechnology derived products; laws and regulations that apply to development, testing and production. It also addresses the responsibilities of a regulatory affairs specialist the regulatory setting. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6123 PRODUCT DEVELOPMENT AND MANUFACTURING SYSTEMS 3 CR

This course covers product development and manufacturing concerns (such as quality control, scale-up, good manufacturing practices (GMPs) and quality systems), the U.S. Food and Drug Administration inspection process, and FDA regulatory actions. Focus on the QSIT (Quality System Inspection Technique). **Prerequisites: All LDR core courses, LDR 6103 or admission to the concentration**

LDR 6143 PRODUCT TESTING, EVALUATION, CLINICAL TRIALS, AND POST-MARKET ISSUES 3 CR

This course focuses on post-marketing requirements, reporting and enforcement actions. Emphasis is on inspection (internal and by regulators) preparation, conduct and follow-up actions. It also introduces the major concepts under which clinical trials are designed and run, including the phases of clinical trials, study design and statistical concepts, the role of the U.S. Food and Drug Administration, Institutional Review Boards, the Code of Federal Regulations and ethical principles. Post-marketing surveillance and studies, and reimbursement and economics of biomedical interventions are discussed. **Prerequisites: All LDR core courses, LDR 6103 or admission to the concentration**

LDR 6166 BIOMEDICAL REGULATORY AFFAIRS CAPSTONE 6 CR

This course provides a practical experience to ensure that participants can conceptualize the shepherding of new biomedical products through regulatory, clinical and quality assurance aspects. Students work on projects of their choice under the guidance of an adviser. The final report will consist of a comprehensive regulatory strategy work plan for a product, using knowledge gained in the concentration-area courses. **Prerequisites: All LDR core courses LDR 6103**

LDR 6203 NONPROFIT SECTOR FOUNDATIONS 3 CR

An examination of the social and legal history of nonprofit organizations in the United States, to develop an historical perspective and a sense of magnitude, scope, and functions of the nonprofit sector and its relationships with business and government. This course will first explore the theoretical bases upon which social scientists have sought to understand the role of the nonprofit sector in our economy and in our political and social systems, and will explore the issues that will shape the future of the sector. Learners will also receive a basic grounding in the laws and regulations governing nonprofit organizations. Content will include the procedures for incorporating, reporting, and maintaining tax-exempt status as a nonprofit organization, a familiarity with legal principles and research methods, and an overview of the legal, regulatory, and policy issues facing contemporary nonprofit organizations. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6223 ECONOMIC SUSTAINABILITY OF NONPROFIT ORGANIZATIONS 3 CR

This course will provide the student with an understanding of basic principles of micro-economic analysis, put the nonprofit sector into perspective within the framework of the overall economy, and present strategies for organizational sustainability that incorporate fund development programs, private, corporate and government funding streams. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6243 QUANTITATIVE METHODS FOR NONPROFIT ORGANIZATION PLANNING AND EVALUATION 3 CR

This course will give students working knowledge of data analysis, statistical concepts, use of computers, research designs for program planning and evaluation, and quantitative techniques for problem solving. The intent is to ensure that executives and leaders are able to effectively utilize and interpret statistical data, technical reports, research findings, and evaluation studies, and employ basic quantitative methods in their own analysis of programs, problems and policies.

Prerequisites: All LDR core courses or admission to the concentration

LDR 6266 NONPROFIT ORGANIZATION STUDIES CAPSTONE 6 CR

This course is the capstone course for all students in the Nonprofit Concentration. The capstone is a special project conducted in a nonprofit organization. It may be arranged within the organization in which the student is employed or in another organization which agrees to work with the student on a project of mutual interest. It is anticipated that most projects will be arranged within agencies in which students currently work. The capstone experience affords each student an opportunity to go through a process that will generate a solution(s) to a critical problem or issue for the organization.

Prerequisites: All LDR core courses, LDR 6203

LDR 6303 POLITICAL MARKETING AND MANAGEMENT 3 CR

This course empowers students to create an interdisciplinary strategy to analyze constituent priorities and community resources, effectively engage media and society in framing public debate, and facilitate effective political leadership that can implement chosen policies. The principles of power and leadership are explored, featuring effective state and national political leaders who discuss their principles of leadership and engagement. **Prerequisites:** All LDR core courses or admission to the concentration

LDR 6323 LEADING COMMUNITY ENGAGEMENT 3 CR

This course provides the student with a deeper understanding of the major components and principles of civic leadership. Classroom activities examine the leadership process in the context of community and society. This approach encourages ordinary citizens to take responsibility, organize, and build coalitions for the purpose of productive public discussion.

Prerequisites: All LDR core courses or admission to the concentration

LDR 6343 PUBLIC GOVERNANCE AND SERVANT LEADERSHIP 3 CR

This course explores the essential elements of effective governance within the framework of servant leadership, which is essential for the survival of a democratic Republic. The legal, moral, and ethical implications of these elements will be in both historical and contemporary contexts. **Prerequisites:** All LDR core courses or admission to the concentration

LDR 6366 POLITICAL LEADERSHIP & CIVIC ENGAGEMENT CAPSTONE COURSE 6 CR

This course is the capstone course for all students in the Political Leadership & Civic Engagement Concentration. The capstone is a special project conducted within a local, state, or national community setting. It may be arranged within the organization in which the student is employed or in another organization which agrees to work with the student on a project of mutual interest. The capstone experience affords each student an opportunity to apply the skills, knowledge, and abilities gained through the leadership core and concentration-area content courses in a process that will generate a solution(s) to, or facilitate substantive public debate of a critical problem or issue. **Prerequisites:** All LDR Core Courses, All Political Leadership & Civic Engagement Concentration applied skills courses

LDR 6403 FUNDAMENTALS OF FORESIGHT AND ENTREPRENEURSHIP 3 CR

This course will cover the fundamentals of broad topics in entrepreneurship, including human dimension of entrepreneurship, nature and role of entrepreneurship, economics of entrepreneurship, and corporate entrepreneurship. Students will gain a basic understanding of the entrepreneurial process of venture creation and innovation or the art and skill of finding viable new-business opportunities and the resources needed to develop and profit from them. In addition, students will examine the marketing, management, operations and financial functions needed to successfully start-up a new business whether a sole-proprietorship, partnership or division of a corporation. An emphasis will be placed on foresight, where students will utilize current analytical reports to foresee future events and outcomes, and then acting in

accordance so as to arrive at the future in a desired state. They will accomplish this by applying creative and innovative thinking and work as a team to develop new ideas and scenarios around selected contemporary issues. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6423 FEASIBILITY ANALYSIS FOR NEW VENTURES 3 CR

The course focuses on business start-ups, providing an intensive introduction to business planning from the defining of a “primary vision” through market size assessment and strategic operations planning, to the financing, staffing and implementation of the new venture. Course includes readings on entrepreneurship, case studies of both small and large examples of successful new ventures and student fieldwork. Software available to help business planning will be introduced for hands-on use. Students will each prepare a formal business plan for new ventures. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6443 BUSINESS AND MARKETING PLANS FOR NEW VENTURES 3 CR

The core of this course provides the theoretical and practical skills required to produce a comprehensive business plan integrating marketing, organizational behavior and financial planning via a flexible corporate strategy and it focuses on marketing planning and emphasizes the analysis of customer needs as well as company and competitor capabilities. This analysis forms the basis of a sound marketing strategy that provides value to customers in a way superior to competitors. Among other topics, students will discuss strategic and managerial analysis and securing start-up financing for new ventures. They will learn how to deliver the marketing strategy through the development of an integrated marketing program covering product offerings, pricing, promotion, and distribution and how to perform presentation of a professional business plan. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6466 GLOBAL ENTREPRENEURSHIP CAPSTONE 6 CR

This course is designed to provide a capstone or conclusion to the Strategic Foresight and Entrepreneurship Concentration. The emphasis in this course is for students to develop the ability to create and grow a global venture. Students will apply the knowledge and skills acquired in their courses to the work environment using the business plan model. Along with the aspects and characteristics of global entrepreneurs and the global entrepreneurship process, concepts of creativity, innovation and opportunity analysis are discussed both in individual and corporate setting as are global ethics, corporate governance, social enterprise and entrepreneurship. Student will develop a specific business idea, then examine the discussed concepts and include political risk, market opportunity, and operating conditions of their international market destination. Business plan is developed using market research options, entry modes, resource allocation, financial projections, and overall strategy for new ventures. **Prerequisites: All LDR core courses, LDR 6403**

LDR 6503 FOUNDATIONS OF INSTRUCTIONAL LEADERSHIP 3 CR

This course will orient instructional leadership within the multiple contexts of child development, diverse learning environments, and an ever-changing political landscape. Students will explore current educational issues and use them to frame approaches to the continual improvement of academic instruction. **Prerequisites: All LDR Core Courses or admission to Concentration**

LDR 6513 STUDENTS AND STAKEHOLDERS IN THE HIGHER EDUCATION ENVIRONMENT 3CR

This course introduces students to the major human development theories involving college students in American higher education. Special attention will be given to contemporary student development theory and research. Focus will also be directed toward understanding how this body of theory and research can be used to guide the design of policies and practices in higher education. **Prerequisites: All LDR Core or admission to Concentration**

LDR 6523 DESIGNING, MANAGING, AND MONITORING STANDARDS-DRIVEN CURRICULUM 3 CR

This course will guide students in utilizing state standards frameworks to make sound decisions about what is important for students to learn; create, assess, select, and adapt a rich and varied collection of materials and strategies to support learning; and base their instruction on ongoing assessment. **Prerequisites: All LDR Core Courses or admission to Concentration**

LDR 6533 TEACHING AND LEARNING IN HIGHER EDUCATION 3 CR

This course provides an overview of the issues, principles, and practices associated with effective college teaching. The course assumes, identifies, and uses a body of scholarly knowledge and research appropriate for study and application to the profession of college/university teaching. Topics examined include learning and diversity, teaching models and strategies, teacher and student behaviors and learning outcomes, and instructional improvement strategies. The interaction of theory and practice is an important theme (and challenge) of the course. **Prerequisites: All LDR Core Courses – or admission to Concentration**

LDR 6543 SYSTEMATIC IMPROVEMENT OF INSTRUCTIONAL PRACTICES 3 CR

This course leads students through reflective and observational processes they can use to regularly analyze evaluate, reflect on, and strengthen the effectiveness and quality of their practice, and use their findings to advance knowledge and practice in their field. Strategies for mentoring new teachers and engaging in action research will be explored and applied. **Prerequisites: All LDR Core Courses or admission to Concentration**

LDR 6553 PRINCIPLES AND PRACTICE OF ACADEMIC ADVISING 3 CR

This course examines the foundations of academic advising as essential components of student success and retention in higher education. Topics include developmental advising; research on academic advising; models and delivery systems; advising skills; including diverse populations; influences on the helping process such as personal characteristics, verbal and nonverbal responses and behaviors, and ethical considerations; and evaluation, assessment, and reward systems for advisors and advising programs. **Prerequisites: All LDR Core Courses or admission to Concentration**

LDR 6566 INSTRUCTIONAL LEADERSHIP CAPSTONE COURSE K-12 6 CR

This course is the capstone course for all students in the Instructional Leadership Concentration, K-12 Track. The capstone is a special project conducted within an existing educational setting. It may be arranged within the organization in which the student is employed or in another organization which agrees to work with the student on a project of mutual interest. The capstone experience affords each student an opportunity to apply the skills, knowledge, and abilities gained through the leadership core and concentration-area content courses in a process that will generate a solution(s) to or facilitate substantive consideration of a current educational need or issue. **Prerequisites: All LDR Core Courses All Instructional Leadership Concentration applied skills courses co-requisite LDR 6543**

LDR 6576 INSTRUCTIONAL LEADERSHIP CAPSTONE COURSE – HIGHER EDUCATION 6 CR

This course is the capstone course for all students in the Instructional Leadership Concentration, Higher Education Track. The capstone is a special project conducted within an existing educational setting. It may be arranged within the organization in which the student is employed or in another organization which agrees to work with the student on a project of mutual interest. The capstone experience affords each student an opportunity to apply the skills, knowledge, and abilities gained through the leadership core and concentration-area content courses in a process that will generate a solution(s) to or facilitate substantive consideration of a current educational need or issue. **Prerequisites: All LDR Core Courses – Instructional Leadership Concentration Higher Education applied skills courses, Co-requisite LDR 6553**

LDR 6603 LEADING THE SUSTAINABLE BUSINESS 3 CR

This course emphasizes the three aspects of sustainable business that improve a firm's long-term performance: managing risks (regulatory, reputation, litigation, and market), values-driven leadership, and recognizing market opportunities created by environmental and social challenges. Students will learn how to articulate the business case for sustainability, develop and lead internal and external coalitions needed to drive organizational change, and implement metrics for measuring progress and providing accountability. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6623 BUSINESS MANAGEMENT AND ENVIRONMENTAL LEADERSHIP 3 CR

In this course, students will gain expertise, enhance skills and broaden perspectives on environmental and natural resource management and leadership. As managerial effectiveness is central to environmental leadership, this course focuses on the development of management and leadership skills including decision-making, motivation, working in teams, organizational cultures, organizational design, and change management. Student will acquire cutting-edge environmental thinking providing them with the ability to make difficult environmental management decisions and effectively respond to environmental issues. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6643 SUSTAINABILITY AND BUSINESS OPPORTUNITY 3 CR

The primary objective of this course is to provide students with the skills, practical knowledge and experience in understanding needs not met effectively by current business practices and in developing innovative and proactive business strategies to address them. They will realize the sustainability challenges business and society are facing, how sustainability can be a business opportunity, and how businesses can increase their competitive advantage through sustainable strategies and innovation. The course emphasizes on the tools necessary to perform each business function (such as marketing, manufacturing, distribution, purchasing, HR R&D, information systems, finance, accounting) taking environmental and social implications into account. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6666 SUSTAINABLE BUSINESS ADMINISTRATION CAPSTONE 6 CR

The purpose of the integrative capstone course is to provide opportunities for students to apply the lessons learned in their previous courses to a real organization. Course instruction will center around a series of integrated modules that will focus on the practical implementation of all aspects of the curriculum. Under the direction of faculty, this capstone course engages the student to work with a business chosen by the student and the development of a plan to significantly improve its sustainable business practices. Students will explore interconnections between the strategic foundation of their client project and the cultural, sustainable and core purpose and goals of their client's organization within a global business context. **Prerequisites: All LDR core courses, LDR 6603**

LDR 6703 FOUNDATIONS OF ATHLETIC ADMINISTRATION 3 CR

This course will present a philosophy of the leadership and organization of interscholastic athletic programs, principles, strategies and methods of athletic administration, frameworks to identify and unify the athletic community through character-based standards, and best practices in fundraising, marketing, and promotion of athletic programs and events. Incorporates NIAAA Short Courses: LTC 501, 502, 611, 720 (See attached NIAAA Professional Development Book for course descriptions). **Prerequisites: All LDR Core Courses or admission to Concentration**

LDR 6723 LEGAL AND ETHICAL ISSUES IN ATHLETIC ADMINISTRATION 3 CR

This course will guide students in utilizing institutional and established legal guidelines to consider all aspects of liability related to athletic performance, and creating and maintaining a strategic plan for managing risk and maintaining safety, equity, and integrity in the context of interscholastic athletic programs. Incorporates NIAAA Short Courses: LTC 504, 506, 508, 617. **Prerequisites: All LDR Core Courses or admission to Concentration**

LDR 6743 ATHLETIC FACILITY AND EVENT MANAGEMENT 3 CR

This course presents opportunities for students to analyze best practices and challenges to securing, maintaining, and managing safe, resilient, and attractive indoor and outdoor athletic facilities and equipment that is readily available to students for athletic preparation and interscholastic competitive events. Incorporates NIAAA Short Courses: LTC 615, 616, 618, 630. **Prerequisites: All LDR Core Courses or admission to Concentration**

LDR 6766 ATHLETIC ADMINISTRATION CAPSTONE COURSE 6 CR

This course is the capstone course for all students in the Athletic Administration Concentration,. The capstone is a special project conducted within an existing athletic setting. It may be arranged within the organization in which the student is employed or in another organization which agrees to work with the student on a project of mutual interest. The capstone experience affords each student an opportunity to apply the skills, knowledge, and abilities gained through the leadership core and concentration-area content courses in a process that will generate a solution(s) to or facilitate substantive consideration of a current interscholastic athletic need or issue. Incorporates NIAAA Short Courses: LTC 710A – Current Issues in American Sports. **Prerequisites: All LDR Core Courses; Athletic Administration applied skills courses; co-requisite LDR 6743**

LDR 6803 LEADERSHIP AND MANAGEMENT OF HEALTHCARE SYSTEMS 3 CR

This course is an in-depth study of a range of issues and related problems faced by practicing managers and leaders in the rapidly changing healthcare/health services delivery system. Special emphasis is placed on the issues relevant to current challenges, and this emphasis is of utilitarian value to the participants. Examples of issues include rural and urban healthcare, managed care, ethics of healthcare, integrating technology, and leadership styles and traits. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6823 LEGAL AND ETHICAL ISSUES IN HEALTHCARE LEADERSHIP 3 CR

The course studies the legal framework of health Services and healthcare delivery, as well as the ethical issues confronted by healthcare administrators in various healthcare settings. Topics will include licensure, medical malpractice, liability, insurance issues, legal standards for care, confidentiality of records (HIPPA), informed consent, and patient rights and patient advocacy. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6843 ORGANIZATION AND ECONOMICS OF HEALTHCARE DELIVERY SYSTEMS 3 CR

The course provides an overview of the development of the current status of the healthcare system in the United States, its organizational structure, and operation of the various healthcare organizations, governmental as well as non-governmental, at the federal, state, and local levels. The course examines the structure and issues of the major Healthcare delivery systems including operation, marketing, financial management and sustainability of outpatient clinics, physician's offices, hospitals, long-term care facilities, self-help organizations, patient advocacy groups, accrediting agencies, and the insurance industry. Concepts addressed include demand (what physicians, patients and families want), supply, distribution, utilization of resources, market theories, and cost-benefit analysis, as they apply to healthcare as a service industry and including current and future payment systems for healthcare. **Prerequisites: All LDR core courses or admission to the concentration**

LDR 6866 HEALTHCARE LEADERSHIP CAPSTONE 6 CR.

This capstone course will provide students the opportunity to integrate and synthesize previous course work in leadership with healthcare content through the creation and implementation of applied programming or secondary/archival research. **Prerequisites: All LDR core courses, LDR 6803**

