SCHOLA MAGISTRA VITAE

ST. THOMAS UNIVERSITY
Global American Learning

CATALOG
valid through July 31, 2025

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SUMMARY

1. GENERAL INFORMATION

1.1 WHO WE ARE

St. Thomas University, Global American Learning, is promoted and controlled by American E-Learning Investments, Inc (AEI), a company incorporated in Wyoming. The founders have been working in the field of quality education for several decades. All their initiatives have consistently been recognized by the competent authorities of the nations in which they have operated by obtaining the necessary authorizations for operation and recognition of the degrees awarded.
Socially committed nonprofit organizations have decided to invest further in education, with the full realization that the insufficiency of culture and the explosive growth of knowledge concentrated in the hands of privileged elites have only increased the well-being of some and much less that of others.
They fully endorse the goals highlighted in the 2030 Agenda and are supported by all United Nations member states. They will focus all their actions based on the three principles enunciated by the Nobel laureates of Economics:

1. ***Fight poverty with cultural innovation***
2. ***Competitiveness with technological innovation***
3. ***Increasing productivity by promoting cooperation and collaboration***

STU is an independent institution in which higher education is based on high-level studies aimed at broadening knowledge and contributing to the betterment of the society in which it operates from a developmental perspective as a function of progress and with a new and far-reaching vision that especially involves the lower classes in building an industrious, meritocratic and resource-conscious society. STU maintains its independence and freedom from any external political or economic power; it is a culturally open university in which the variety of personal experiences and backgrounds is valued and encouraged because it is precisely these differences that foster mutual knowledge, understanding of social phenomena, the development of knowledge and the education of future citizens of a globalized world.
The values that guide and inspire all activities of the entire community of students, faculty, and administrative staff are meritocracy, integrity, respect, openness, pluralism, social responsibility, and differences in gender, ethnicity, religion, age, nationality, ability, socio-economic status, and geographic origin are valued and welcomed by the entire STU community in a context of mutual respect.

1.2 MISSION STATEMENT

The mission of St. Thomas University is to provide an international online degree site to deliver higher education courses and degrees primarily for the social and economic development of disadvantaged and underrepresented populations.

1.3 PURPOSES

STU seeks to actively participate in the educational process by educating the growing educational needs in the development process that sees a huge gap between Western economies and so-called "emerging" countries that generate significant social and economic tensions. Access to education is one of the main factors of social inequality and the common denominator of the ills that afflict this historical moment: ills that must be cured addressed the growing awareness of the advantage of solidarity, adapting, first of all, more than the economic model, the educational model which, in this regard, plays a role of primary importance. STU wants to intervene in areas where quality education is still inaccessible to most of the population to reduce this main factor of social and economic inequality. The lack of adequate education has lifelong consequences. It is a deficiency that, more than others, tends to make social-economic conditions preclude children from improving their social and economic conditions compared to their fathers, making poverty hereditary.
In addition, new technologies are radically reshaping more or less all areas of educational activity. Their use is a massive opportunity for those who know how to use them and acquire the necessary skills.
They pose a severe obstacle for those who do not possess educational skills and are relegated to the margins of change.

1.4 VISION

In light of the highlighted purposes, STU has developed its academic focus on the following:

- structured academic courses on the use of new technologies;
- reduction of the skills gap in the English language;
- faculty who can transfer their skills through technology;
- logistical and economic accessibility to education through the provision of online academic pathways;
- accessibility to U.S. academic education methodologies recognized internationally as the best for preparing knowledgeable and competent future citizens.

In addition:

- STU operates from a developmental perspective as a function of progress and with a new and far-reaching vision that involves especially the less affluent classes in building an industrious and meritocratic, resource-conscious society;

- STU will provide graduates with satisfying job opportunities while strengthening their entrepreneurial attitude;
- STU ensures the University's financial security and well-being by managing income and expenditures in a balanced manner, engaging potential donors, and creating conditions for private support of the University.

1.5 INSTITUTIONAL APPROVALS

An application made by St. Thomas University to obtain a license for the issuance of non-public degrees for post-secondary activities in North Carolina is being considered.

1.6 FACILITIES AND LIBRARY

As an online university, St. Thomas University has its headquarters and project headquarters in North Carolina and several **learning centers** In strategic countries consistent with STU's mission. STU's learning centers, all virtually connected, function to coordinate and supervise learning activities in the area in which they are located and provide a physical place for students, faculty, and tutors to interact and meet.

The first learning center opened in Italy in Milan, in an area well served by public transportation, within the University City Study, representing an educational place of excellence, cultural growth, and aggregation for the entire community of the metropolitan city of Milan.

The building that houses St. Thomas University responds to a concept of space custom-designed for online study. All environments dedicated to STU are created with multimedia design in the service of a teaching and learning method evolved toward the digitization of information. Each space dedicated to training and knowledge is equipped with wired computing devices and touch monitors.

Learning centers will soon be established in Asia and francophone Africa.

As a virtual library with fully electronic resources and email support, the dedicated physical space is not needed to perform library duties and support university students and faculty successfully. Therefore, library facilities will have adequate physical space, a librarian's computer, and two library support staff members. The library will conduct individual assessments of library resources by the program to maintain current and relevant resources that support students enrolled in study licensure programs.

1.7 CONTACT INFORMATION

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2. ACADEMIC PROGRAM

2.1 THE AMERICAN SYSTEM

STU operates internationally and believes that providing this information for non-U.S. students entering the U.S. academic system is necessary.

American bachelor's degrees are four (4) years, and master's degrees are two (2) years. The American higher education system encourages experimentation, particularly during the first two years of the undergraduate experience. While having a certain number of mandatory credits, students can choose the types of courses that fulfill those credits.

The University's requirements are thus divided into four categories: General Education Requirements (GER), Core Curriculum, Major Requirements (*or* Concentration Area), and General Electives.

GER courses provide students with broad exposure to the core liberal arts discipline, including humanities areas such as history, literature, philosophy, and religion; natural sciences such as mathematics and computer science; and social sciences such as economics, political science, and psychology. In these courses, students are encouraged to explore topics that have yet to become familiar to them, broaden their intellectual interests, and discover previously unrecognized aptitudes and skills.

Within each degree program, there are specific requirements that the student must fulfill. These requirements include core courses deemed by faculty to be essential to the discipline and comparable to requirements for the same degree at other recognized and accredited colleges and universities in the American higher education system. In addition to the core requirements, students choose elective courses that support the core program and courses in other discipline areas of particular interest.

In the American system, the status of the student is as follows:

- **Freshman:** A student who has completed fewer than 30 credit hours.
- **Sophomore:** A student who has completed between 30 and 59 credit hours.
- **Junior:** A student who has completed between 60 and 89 credit hours.
- **Senior:** A student who has completed 90 credit hours or more.
- **Transfer student:** A student who has changed universities or programs and intends to pursue new studies.

2.2 ST. THOMAS UNIVERSITY SYSTEM

St. Thomas University recognizes the value of the didactic methodology used to deliver "knowledge" in distance education in the American university system. Its primary objective is to create an educational environment within which, even in space-time distance, human and personal relationships are preponderant over the mere transit of information.

The Innovative Didactics adopted by STU takes full advantage of the potential of computer-educational technologies and, in particular, multimedia, interactivity with learning materials, human interactivity, the possibility of customizing learning paths, the interoperability of the systems used and generated during the use of technological systems, the accessibility of content and the flexibility of student use.

The educational activity of STU is carried out in a web-based environment (Learning Management System - LMS).

In this system, the student is never left alone, even if isolated by the space-time distance; students are guided by the tutor and stimulated to interact with other actors in the educational process, thus realizing moments of sharing and collaborative learning.

The system adopted by the STU makes it possible to:

- significantly reduce the logistical pressure on the physical facilities;
- reduce disadvantages due to student travel;
- improve educational offerings by adapting the structure of teaching to the different needs of the student population (student-workers, off-campus students, students with disabilities);
- improve students' ability to participate in the learning process;
- improve teaching effectiveness and student performance;
- improve the student-university relationship both from an academic (connection with the teacher and fellow students) and administrative (access to secretarial procedures) point of view;
- enhance interactive classroom moments;
- provide monitoring of learning achievements through tracking.

Functionality and effectiveness in program management are ensured by the schools listed below, all supported by the Academic Senate and Curriculum Committee:

- School of General Studies and Digital Education.
- School of International Business.
- School of Innovation and Intelligence

A Self-Evaluation Committee has been established to evaluate the success of STU's educational program, which is essential to its continued growth. This committee is responsible for the ongoing evaluation of the educational program and the assessment and improvement of STU's programming.

2.3 STU ACADEMIC CALENDAR AND CLASS SCHEDULE

The academic year is individualized for each student in that it begins with the first course in a degree program and ends when the student has completed the required credits and weeks of class time. A week of instructional time is seven consecutive days in which classes are held. In asynchronous distance learning courses, the instructional time is based on the student completing the instructional activity. Courses related to a bachelor's degree program last five consecutive weeks; courses related to a master's program last six straight weeks. When students finish a course, they may begin the new one immediately the following week. A maximum of two courses may be enrolled in at the same time. However, STU suggests that students take one course at a time. This intensive mode allows the student to focus more attention and resources on a single topic. It is an instructional mode that enhances learning and helps students achieve their educational goals more time-efficient and outcome-oriented. Class time is measured from the first day of class or examination and does not include vacations, scheduled academic breaks, or orientation periods.

2.4 ASSIGNMENT OF CREDIT HOURS

The student's work is measured in credit hours (CH).
To earn a **bachelor's degree**, the student must complete **120 approved credit hours**.
To earn a **master's degree**, the student must complete at least **36-45 approved credit hours**, depending on the requirements of the specific degree.
In STU's online courses, the amount of teaching, testing, reading and studying can vary depending on the difficulty of the material. Courses are usually 3 CH divided into smaller parts, called units, and each unit consists of two parts: a instructional part and a study part.
The instructional part includes elements such as video lectures, quizzes, required readings, discussions or activities for a total of **11-16 hours of instructional time for each CH**.
The **study part** consists of doing research, additional readings, homework and individual study which is **22 to 42 hours for 1 CH.**
A typical 3 CH course thus consists of 5-6 units corresponding to **33-48 hours of instructional time and 66-126 hours of study**.

2.5 CURRICULA AND PLANS OF STUDY

Each student's study plan includes the compulsory activities mentioned in the preceding paragraph, any educational activities envisaged as optional, and independently chosen activities.
Credits acquired as a result of examinations that may have been successfully taken for teaching addition to those countable to complete the path leading to the degree, remain recorded in the student's career and may give rise to subsequent recognition. Still, the evaluations obtained should be included in the calculation of the grade point average of the profit examinations.
The courses offered are numbered:

- Numbered less than 100 are preparatory courses and do not give credit.
- Numbered 100 to 299 are courses for first-year students, sophomores, or other introductory-level courses.
- Numbered 300 to 399 are junior or senior-level courses that require in-depth knowledge of the subject matter.
- Numbered 400 to 499 are senior-level courses.
- Numbered 500 to 900 refer to post-graduate level courses.

Course objectives, prerequisites, syllabi, requirements, and evaluation procedures will be clearly stated and made available to students in a written syllabus.
Students must meet all prerequisites before registering for a course.

2.6 ACADEMIC PLANNING

St. Thomas University - through its Schools - offers four (4) year programs of study aimed at earning Bachelor of Arts (B.A.) and Bachelor of Science (B.Sc.) degrees and two-year programs aimed at earning Master's degrees that represent excellence in the respective field of education.
The B.A. and B.Sc. are similar types of degrees with some differences. In general, in the B.A., about half of the courses are specific to the major, while the other half are general education requirements and electives. The B.S. is more specialized, with more than half of the courses specific to the major, leaving less room for electives. It is the student's responsibility to fulfill the degree requirements of their academic program.
Master's programs provide students with the skills needed to succeed in their chosen field, with greater specialization and projection toward interdisciplinary aspects. As students acquire a capacity for understanding and critical analysis of various topics, they will have adequate knowledge that, regardless of their chosen path, will enable them to perfect their education with third-level studies, such as the Ph.D.
In particular, the conduct of the Master's Thesis (or Capstone Project) involves student participation in research projects coordinated by faculty members of the master's degree program. Active participation in research projects will allow students to self-evaluate their propensity for advanced research activity and choose, with full knowledge, whether to continue their studies with a doctoral degree or enter the world of work.

2.7 DEGREES OFFERED

St. Thomas University offers the following Bachelor's and Master's Degree programs:

2.7.1 SCHOOL OF INNOVATION AND INTELLIGENCE

The School of Innovation and Intelligence is an interdisciplinary institution that oversees various academic disciplines, including Computer and Data Science, Math for Artificial Intelligence, Computational Life Sciences and Bioinformatics, Software Engineering, Architecture, Web and Information Systems, Intelligent Sensing (Robotics, Real-Time Systems, and Computer Vision), and Artificial Intelligence Systems.

The curriculum of our courses is meticulously designed to cultivate the proactive and preeminent roles of computer science professionals. Our primary objective is to equip our students with the necessary skills and knowledge to contribute to developing an open and dynamic knowledge society. To achieve this, we foster collaboration between our students and professionals from diverse fields such as design, anthropology, and psychology.

Within our educational offerings, we have developed a Bachelor's degree program that imparts fundamental information technology skills. Additionally, we provide specialized Master's degree programs that delve into the most sought-after topics in the contemporary workforce. These programs are specifically designed to meet the demands of the industry and enable our graduates to excel in their respective fields.

The programs offered by the school are:

Bachelor of Science in Computer Science with a concentration in:

- E-Commerce and Digital Communication
- Machine Learning and Artificial Intelligence
- Information and Data Analytics
- Networks and Cybersecurity

Master of Science in Cybersecurity

Master of Science in Artificial Intelligence Systems with a concentration in:

- Computer Vision
- Methodologies
- Intelligent Robots
- Artificial Intelligence and Innovation

2.7.2 SCHOOL OF INTERNATIONAL BUSINESS

The School of International Business covers economics, business, mathematics, and statistics expertise. It aims to promote the dissemination of culture and the advancement of theoretical and applied research in economic and international disciplines. It recognizes the importance of interdisciplinary scientific input and a plurality of analytical methods and business principles, encouraging intellectual discussion and debate. On this basis, the School of International Business encourages integration and coordination between research and teaching activities.

Evaluation and reward criteria and internationalization constitute the tools for disseminating knowledge and enhancing relations with society regionally, nationally, and internationally. In this context, training young people naturally becomes a focal point of the School of International Business activities, which aims to enhance educational offerings and research projects by creating close connections and interrelationships between the latter's results and the contents proposed by the courses of study.

This is also achieved with the support and active participation of the working world's reference actors (stakeholders).

The degree programs offered by the school are:

Bachelor of Science in Business Administration with a concentration in:

- Accounting
- Finance
- Management
- Marketing
- Digital Economy
- International Business
- Green Business Management

Master of Business Administration - MBA with a concentration in:

- Green Management, Energy, and Corporate Social Responsibility
- Marketing and Digital Communication
- International Banking and Finance
- Cyber Risk Strategy and Governance
- Circular Economy Management

2.7.3 SCHOOL OF GENERAL STUDIES AND DIGITAL EDUCATION

The School of General Studies and Digital Education emphasizes interdisciplinary collaboration and addresses aspects of education, pedagogy, and a variety of related fields.

General Studies includes a wide range of courses and programs designed to provide students with a broad education. Core or foundational courses are provided that cover essential subjects such as English composition, mathematics, natural sciences, social sciences, and the humanities. Their purpose is to provide students with a well-rounded education to ensure a broad-based fundamental understanding of key disciplines.

Digital Education, also known as online education or e-learning, is the use of digital technologies and the Internet to deliver educational content and facilitate learning. Digital education is the use of computers, mobile devices, and online platforms to access course materials, interact with instructors and fellow students, participate discussions complete assignments and conduct assessments. With the advancement of technology and the increasing demand for flexible and accessible educational opportunities, digital education has grown significantly and continues to grow in popularity. The course of studies in Digital Education places great importance on the development of educators and trainers who have the skills to create supportive and inclusive learning environments that address the emotional, psychological and social needs of learners. It is committed to preventing and countering distress that may arise from educational challenges, social inequities and other issues.

The degree programs offered by the school are:

Bachelor of Science in Digital Education with a concentration in:

- Instructional Designer in Digital Contexts
- Psychosocial Educator in Digital Settings

Master of Arts in Digital Education with two areas of emphasis:

- Instructional Design
- Psychosocial Educator in Digital Settings

2.8 NON-DEGREES OFFERED

2.8.1 CERTIFICATE PROGRAMS

St. Thomas University offers Certificate Programs to develop or strengthen specific job skills. Certificate programs tend to focus on developing the skills needed for employment. Depending on your chosen certificate program, you will acquire the technical skills or know-how required to perform specific job-related task. Still, they also provide an opportunity to hone key transferable skills, such as critical thinking and decision-making.

STU's certificates are divided into two levels:

- **Beginner Certificate Programs** are designed for students who want to develop skills in a particular subject or field or those who want to change jobs and need new skills.
- **Advanced Certificate Programs** are designed for those who want to strengthen the skills needed to advance in their chosen career or field.

At the end of the certificate programs, a certificate is awarded, attesting to the successful completion of the program.

To see the full schedule of certification programs offered, please visit the webpage:

https://sthomasuniversity.org/programs-offered/certificate-programs/

2.9 STU BACHELORS DEGREES

2.9.1 MINIMUM REQUIREMENTS FOR ADMISSION

1. A high-school diploma (or equivalent) *or*
   if the certificate was not earned in the U.S., proof of completion of secondary school that allows for university enrollment in the applicant's home country.
2. Candidates whose native language is not English must demonstrate proficiency in the English language.

2.9.2 GENERAL REQUIREMENTS FOR THE ACQUISITION OF A BACHELOR'S DEGREE

To receive a Bachelor's Degree, STU students must:

1. Complete at least 120 credit hours divided as such:
   a. General Education Requirements - 30 CH
   b. Core Curriculum, Major Requirements, and General Electives - 90 CH.
   c. Within the 120 credits, at least 45 CH must be obtained in upper-level credits (300-400 level).
2. At least 70% of the coursework must be completed at STU.
3. Complete core requirements and major requirements as outlined in each major.
4. Maintain a minimum of a 2.0 cumulative GPA on a 4-point scale.

2.9.3 GENERAL EDUCATION REQUIREMENTS

A minimum of 30 CH or the equivalent is required for General Education courses. General Education course work addresses the broad areas of human knowledge essential to a liberal arts education. Across the curriculum, particular attention is placed on written and oral communication skills.

To achieve STU educational goals and be in alignment with the STU mission, students must complete the following General Education courses in the following categories:

- **Humanities and Fine Art.**
- **Business/Social and Behavioral Sciences.**
- **Mathematics, Natural Science, and Computer Science.**
- **Global Perspectives and Diversity -** These courses prepare students for a global and diverse world and emphasize international comparative perspectives on race, ethnicity, and gender classes courses are indicated with a **G** in the catalog of STU.
- **Writing Intensive -** These courses are designed to improve and reinforce the fundamental ability to communicate effectively, which is central to a liberal arts education. The classes are indicated with a **W** in the catalog of STU.

Each course may be used to satisfy only one General Education Requirement.

2.9.4 CORE CURRICULUM AND MAJOR REQUIREMENTS

Within each degree program, the core curriculum and essential major requirements establish the requirements of each area.

2.9.5 GENERAL ELECTIVES

For some majors, besides the core requirements, students must complete additional general electives supporting needs.

2.10 BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Businesses, service organizations, and public administration have increasingly considered computer science skills necessary. The constant rapid evolution creates for computer specialists to enter the workforce. The Bachelor of Science Degree in Computer Science provides an essential methodological background and an understanding of the latest technologies in various specialties, from business to public service and individual applications.
The student must choose a subject area for further study:

2.10.1 Major in E-Commerce and Digital Communication

The major in E-Commerce and Digital Communication focuses on user-oriented digital application design. Students learn various stages of digital application design and their contexts, from identifying the needs of users, creating application prototypes, assessing usability, generating promotional materials through digital channels, analyzing effectiveness, and keeping customer relations. Students of the E-Commerce and Digital Communication program will be well-prepared for a variety of careers in the rapidly growing field of online business and communication. They may choose to pursue roles as e-Commerce managers, digital marketing specialists, web developers, data analysts, social media managers, or other related positions.

2.10.2 Major in Machine Learning and Artificial Intelligence

The Machine Learning and Artificial Intelligence program covers a range of topics, including machine learning, deep learning, natural language processing, and Computer vision. It combines rigorous computer science skills with ML and AI while providing the necessary mathematics, Statistics, and data science skills. The demand for professionals with expertise in machine learning and artificial intelligence is growing rapidly, with these skills being in high demand across many industries. Graduates will be prepared for a variety of careers, including machine learning engineers, data scientists, artificial intelligence specialists, computer vision engineers, and natural language processing engineers.

2.10.3 Major in Information and Data Analytics

The Information and Data Analytics program provides a strong foundation for a variety of exciting careers in the growing field of data analytics. It covers a range of topics, including data analysis, data mining, statistical modeling, data visualization, and programming languages such as Python and R. The program is designed to provide students with the knowledge and skills required to work with large data sets and extract meaningful insights. Graduates will be well-prepared for a variety of careers, including data analysts, data scientists, business intelligence analysts, and data engineers.

2.10.4 Major in Networks and Cybersecurity

The Network and Cybersecurity program equips students with the skills and knowledge required to work in the rapidly growing field of cybersecurity. The program covers a wide range of topics, including network security, cryptography, ethical hacking, incident response, and risk management. Graduates of the program will have the skills and knowledge necessary to secure computer networks from unauthorized access, identify vulnerabilities in computer systems and networks, and respond to security incidents. Some possible career paths include cybersecurity analyst, information security manager, penetration tester, and incident response specialist. Graduates will have the skills and knowledge to make a positive impact in the organizations they work for.

2.10.5 EDUCATIONAL OBJECTIVES AND METHODOLOGY

The objective of the degree program is to acquire the skills necessary both for rapid entry into the world of work in the field of information and communication technologies and to enable the graduate to follow the rapid technological evolution and to adapt to a wide variety of work realities. Graduates in Computer Science will be able to use the knowledge and skills acquired in the design, development, and management of computer systems; they will have the skills needed to address and analyze problems in application contexts and to develop troubleshooting solutions.

2.10.6 JOB OPPORTUNITIES

The Bachelor of Science in Computer Science provides broad-based knowledge alongside elements of professional training to enable continuation in higher studies while offering entries into the world of work. Graduates in Computer Science will carry out professional activities in the areas of design, organization, and management of computer systems in companies producing hardware/software in the areas of computer systems and networks as well as in companies that are information technology-based, e.g., banks, insurance companies, public bodies. In addition, skills acquired during the degree program allow for the initiation of self-employed professional activities. The Bachelor of Science in Computer Science prepares for the following professions: Software Analysts and Designers, System Analysts, Web Application Analysts and Designers, Network and Computer Communications Specialists, Database Analysts, and Designers, Systems Administrators, Programming Technicians, Application Technicians, Web Technicians, Database Management Technicians, Network Systems Management Technicians.

2.10.7 CURRICULAR PROGRAMS

Students must complete these curricula requirements:

A. THE GENERAL EDUCATION REQUIREMENTS (30 CH)

Humanities and Fine Arts
ENG/110 - English Composition III
ENG/390 - Public Speaking
One course in Humanities or Fine Arts

Social and Behavioral Sciences/Business
PSY/300 - Social Psychology
SOC/300 - Sociology of Media and Communication

Mathematics, Natural Science and Computer Science
COM/105 - Introduction to Computer Science
MAT/190 - Matrix Calculus and Operational Research
PHY/200 - Physics

Writing Intensive
ENG/320 - Digital Linguistic and Technical Writing (**W**)

Global Perspectives/Diversity
LAW/100 - International Law

B. CORE CURRICULUM (39 CH)

COM/110 - Introduction to Artificial Intelligence and Machine Learning
COM/120 - Introduction to Web Design
COM/140 - Programming I
COM/150 - New Media
COM/180 - Data Analytics for Economics and Business
COM/190 - Computer Network and Cloud Computing
COM/250 - Introduction to Digital Imaging and Visualization
COM/270 - Management Information System
COM/290 - Operating Systems
COM/300 - Database and Data Management
COM/330 - Architecture of Computers
COM/390 - Human-Computer Interaction
COM/495 - Senior Project

C. MAJOR REQUIREMENTS (30 CH) - Students must select one of the following concentration areas:

E-Commerce and Digital Communication
COM/210 - E-commerce Strategies and Models
COM/220 - Programming II
COM/240 - Digital Marketing
COM/241 - Social Media and Networking
COM/242 - Mobile Application Development
COM/243 - Electronic Payment Systems
COM/244 - Web Analytics
COM/245 - Digital Content Management
COM/246 - Information Visualization
COM/247 - Customer Relationship Management

Machine Learning and Artificial Intelligence
COM/170 - Artificial Intelligence and Machine Learning Applied to Business
COM/220 - Programming II
COM/251 - Natural Language Processing
COM/252 - Computer Vision
COM/253 - Robotics and Automation
COM/254 - Reinforcement Learning
COM/255 - Explainable Artificial Intelligence
COM/280 - Data Mining and Knowledge Discovery
COM/410 - Learning Analytics
COM/460 - Neural Networks and Deep Learning

Information and Data Analytics
COM/220 - Programming II
COM/281 - Data Management and Warehousing
COM/282 - Business Intelligence
COM/283 - Predictive Analytics
COM/284 - Data Visualization
COM/285 - Statistical Methods for Data Science
COM/286 - Data Ethics and Privacy
COM/287 - Text Analytics
COM/288 - Time Series Analysis
COM/289 - Multivariate Analysis

Network and Cybersecurity
COM/220 - Programming II
COM/291 - Cybersecurity Fundamentals
COM/292 - Digital Forensics
COM/293 - Intrusion Detection and Prevention
COM/294 - Penetration Testing and Ethical Hacking
COM/295 - Cryptography and Network Security
COM/296 - Security Management and Risk Assessment
COM/297 - Advanced Network Security
COM/450 - Network Protocols and Architecture
COM/470 - Computer Network Security

D. **GENERAL ELECTIVES: (21 CH).** Students will choose seven courses in this area sufficient to complete a combined total of 120 credits:
COM/320 - Programming III
COM/340 - Development of Software Applications
COM/360 - Frequency and Spectral Allocation: Wireless Systems
COM/401 - Information Technology in Healthcare
COM/402 - IT Service Management
COM/403 - Geographic Information Systems
COM/404 - Virtual Reality and Augmented Reality
COM/405 - Emerging Technologies
COM/406 - Knowledge Management
COM/407 - Information Technology Auditing and Assurance
COM/420 - Formal Methods in Computer Science

2.11 BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

St. Thomas University's Business Administration degree is designed to develop the tools needed to enter and impact the business world. Special attention will be paid to the economic impact of environmental issues and sustainable development as a driver of policy and growth in the 21st century. In addition to the standard business courses, the St. Thomas University Bachelor of Business Administration degree includes lessons designed to develop systemic thinking and environmental awareness. Students will develop a foundation of sustainable knowledge in the business environment. To achieve this goal, the degree offers additional courses from other academic disciplines to promote interdisciplinary thinking and problem-solving. Specific attention is paid to developing students' analytical skills. The aim is to identify business problems and find innovative solutions. The curriculum is constructed to maintain an interaction between advanced theories and industry practices. After essential preparation, the student must choose a subject area for further study:

2.11.1 Major in Accounting

Accounting is the process of recording financial transactions about a business. The accounting process includes summarizing, analyzing, and reporting these transactions to oversight agencies, regulators, and tax collection entities. The financial statements used in accounting are a concise summary of financial transactions over an accounting period, summarizing a company's operations, financial position, and cash flows.

2.11.2 Major in Finance

Finance majors will be prepared for careers in financial management and analysis, commercial and investment banking, financial institutions, financial markets, investments, portfolio analysis and management, financial planning, and multinational finance. Finance requires the analysis of financial data, forecasting outcomes, determining the time value of money, integrating capital budgeting, and developing and interpreting financial statements.

2.11.3 Major in Management

Management's heart is understanding planning, organizing, leading, and controlling organizational processes. Today's business environment requires managers who can effectively assess situations to develop plans and guide organizations through them. This degree program requires courses in the critical areas of financial decision-making, managerial accounting, organizational behavior, and servant leadership. Graduate with this concentration will be prepared for positions in mid-and upper-management, including heads of department, director, operations managers, and general managers.

2.11.4 Major in Marketing

Marketing emphasizes the branding and promotion of products and services to the public, targeted through specific demographics. Marketing touches many areas so that students will be well-versed in advertising, communications, consumer behavior, public relations, marketing strategy, and reset business law, management, economics, finance, computer science, mathematics, and statistics.

2.11.5 Major in International Business

International business is an interdisciplinary program that combines courses in economics, business, international law, foreign languages, and other areas to ensure that students are adequately prepared for positions in global companies, banks, government agencies, and others.

2.11.6 Major in Digital Economy

The digital economy refers to the economic output generated by the billions of online connections made daily between people, devices, and businesses, largely due to mobile technology, the "Internet of Things" (IoT), and big data. The digital economy integrates the digital sector and includes the application of economic segments known here as the digitized economy.

2.11.7 Green Business Management

Green business management trains professionals to work in all types of organizations but provides further specialization in green or greening operations. In today's world, green business management prepares managers and their companies to reassess business models in relation to the economy, social relations, and the environment.

2.11.8 EDUCATIONAL OBJECTIVES AND METHODOLOGY

The program aims to develop a multidisciplinary, international, multi-comprehensive, and comparative business and management curriculum. Students' experiences are enriched by exposure to the cultural, historical, social, and linguistic aspects of critical factors for professional success, fostered by the international community at St. Thomas University. Future managers and business leaders will be expected to understand the economy, society, and culture of the geographical areas currently regarded as significant players in the world regarding economic, cultural, and social openings, such as North America, Asia, and Europe.

2.11.9 JOB OPPORTUNITIES

St. Thomas University's Business Administration graduates will have developed the tools and experience needed to succeed as entrepreneurs and managers. The managerial skills acquired in this program can be applied to various companies.

2.11.10 CURRICULAR PROGRAM

Students must satisfy the following degree requirements:

A. THE GENERAL EDUCATION REQUIREMENTS (30 CH)

Humanities and Fine Arts
ENG/110 - English Composition III
ENG/390 - Public Speaking
One course in English Literature

Social and Behavioral Sciences/Business
LAW/100 - International Law
SOC/300 - Sociology of Media and Communication

Mathematics, Natural Science and Computer Science
COM/105 - Introduction to Computer Science
One course in Mathematics
One course in Natural Science

Writing Intensive
ENG/210 - English for Business Studies (**W**)

Global Perspectives/Diversity
POL/200 - Global Poverty and International Responsibility (**G**)

B. CORE CURRICULUM (48 CH)
BUS/110 - Introduction to Business
BUS/140 - Introduction to Accounting
BUS/220 - Principles of Sustainable Management
BUS/230 - Green Business Strategy
BUS/240 - Human Resources Management
BUS/270 - Principles of Marketing
BUS/350 - Business Strategies
BUS/460 - Operations Management
BUS/470 - Global Risk Management
ECO/150 - Microeconomics: The Principles of Human Action
ECO/160 - Macroeconomics: Theory
LAW/200 - Business Law and Ethics
MAT/150 - Foundations of Probability and Statistics
MAT/240 - Financial Mathematics
BUS/495 - Senior Project (6 CH)

C. MAJOR REQUIREMENTS (18 CH) Students must select one of the following concentration areas:

Accounting
BUS/200 - Financial Accounting
BUS/380 - Public Accounting
BUS/390 - Business Analysis and Valuation
BUS/410 - Financial Reporting and Strategic Cost Analysis
BUS/415 - International Accounting and Reporting
ECO/390 - Managerial Accounting

Finance
BUS/250 - Principles of Finance
BUS/480 - Capital Markets and Risk Management
ECO/310 - Corporate Finance
ECO/330 - Public Finance
ECO/340 - Entrepreneurial Finance
ECO/370 - International Finance

Management
BUS/420 - Knowledge and Information Management
BUS/425 - Production Innovation and Technology Management

BUS/435 - Strategic Business Management in an International Context
BUS/450 - Management and Entrepreneurship
BUS/455 - Leadership and Organizational Behavior
BUS/465 - Supply Chain Management

Marketing
BUS/290 - Promotion and Advertising
BUS/310 - Consumer Behavior
BUS/320 - Marketing Research Methods
BUS/340 - E-Business in the Digital Age
BUS/370 - Services Marketing
BUS/440 - Corporate Strategies for Environmental and Social Responsibility

International Business
BUS/360 - International Business and Global Economics
BUS/435 - Strategic Business Management in an International Context
BUS/445 - Financial Markets and Institutions
BUS/475 - Cross-cultural Human Resources Management
BUS/485 - International Marketing Organization
ECO/370 - International Finance

Digital Economy
BUS/280 - Business Management and Digital Applications
BUS/405 - International Trade and Finance
COM/180 - Data Analytics for Economics and Business
ECO/410 - Economics of Innovation
LAW/350 - Public Law and Labor Protection in the Digital Age
MAT/210 - Statistics and Machine Learning

Green Business Management
BUS/440 - Corporate Strategies for Environmental and Social Responsibility
ECO/270 - Environmental Economics and Sustainable Development
ECO/280 - Natural Resources Management
ECO/320 - Global Economy
ECO/390 - Managerial Accounting
ECO/410 - Economics of Innovation

D. GENERAL ELECTIVES: it is sufficient to complete an overall total of 120 credits

2.12 BACHELOR OF SCIENCE IN DIGITAL EDUCATION

The Bachelor of Science in Digital Education degree at St. Thomas University is designed to prepare students to teach in a digital environment. It is offered in response to an ever growing and current need for a wide range of digital skills in virtually all educational and training systems. The recent demands on educational and training systems brought on by the worldwide COVID-19 pandemic have dramatically emphasized the need for educators, professionals and experts across many disciplines to be, at a minimum, well grounded in technology-mediated education, teaching and training.

Sometimes referred to as Technology Enhanced Learning (TEL) and E-Learning, the undergraduate degree in Digital Education at St. Thomas University encompasses elements of both, to focus on a broad spectrum of digital tools and platforms, as well as offline formats to provide a holistic view of digital learning in a variety settings and environments. Specifically, it is the contemporary and inventive use of digital tools and technologies in teaching, training and learning.

The degree program is grounded in scientific and experimental information and experience, and aims to provide a learning connection between education and the advancement of society. Students will gain theoretical and practical knowledge necessary to perform adequately and effectively in digital education and training environments, including distance education, multimedia production and a variety of digital interfaces for continuing education needs. The program will also focus on digital citizenship education and re-education as a necessary part of the global social and economic future. A unifying feature is the special emphasis on the use of new technologies for learning, an appropriate methodological design and a didactic content framework for training. The program is open to traditional, adult and non-traditional students.

2.12.1 Major - Instructional Designer in Digital Contexts

A major in Instructional Design in Digital Contexts will provide students with a broad-based understanding of instructional design theory and principles. It will provide a comprehensive introduction and direct experience with a variety of digital tools and technologies used in training and education such as multimedia software, authoring tools, and Learning Management Systems. Graduates will be able to apply and support the theoretical aspects of a variety of disciplines to the use of digital technologies. They will be able to evaluate teaching and training needs in order to propose solutions and digital content. They will gain the skills and knowledge to design, implement and evaluate effective and engaging learning experiences across a variety of settings and industries.

2.12.2 Major - Psychosocial Educator in Digital Settings

A Psychosocial Educator in Digital Settings combines the knowledge of psychology and education with digital technology. A major in this field of study will provide students with an understanding of how digital tools can be used to enhance learning and support the psychosocial development of individuals in different contexts. Its content is aimed at providing students with the knowledge and skills to implement educational interventions that use digital technologies for designing, implementing and evaluating digital tools and programs that facilitate learning and socio-emotional growth. These might include, creating online courses, educational apps and other digital resources that support different aspects of psychosocial development, such as emotional regulation, social skills and self-esteem. A major in Psychosocial Educator in Digital Settings prepares graduates for a career in the rapidly growing field of digital education where they can make a positive impact on the psychosocial development of individuals and communities.

In addition, this course of study will provide the foundation for and emphasize the importance of developing a deep understanding of how to create safe and inclusive digital education and training environments that promote positive social interactions and prevent risky behaviors such as digital addictions, cyberbullying and other negative online behaviors.

2.12.3 EDUCATIONAL OBJECTIVES AND METHODOLOGY

The Education Objectives of the B.S. in Digital Education are to equip graduates with the theoretical knowledge and practical skills required for professional employment in digital education and training programs.

The Methodology used by the program will include a combination of lectures, seminars, workshops and practical exercises with an emphasis on providing hands-on experience with digital technologies. Its goal is to prepare graduates for careers where they can use their knowledge and skills to create effective training methods, design education programs, and implement projects that utilize digital technologies and multimedia content. An overarching approach of the program is the development of analytical and problem-solving skills.

The program seeks to prepare professionals with the following:

- Ability to analyze and evaluate training interventions, identify learners' needs and design effective training programs.
- Ability to manage and review educational and training programs to ensure continuous improvement.
- Ability to design and implement education and re-education projects utilizing digital technologies and multimedia content.
- Ability to develop critical thinking skills, teamwork skills and effective communication skills.

2.12.4 JOB OPPORTUNITIES

The Bachelor of Science in Digital Education will prepare graduates for a wide range of career and job opportunities such as instructional design, curriculum development, e-learning development, educational technology and multimedia production in a number of settings both public and private. These include, for example, vocational training centers, and

the training and education programs and settings found in Business, the Humanities, Natural and Applied Sciences and the Social Sciences. Career and job options for majors in Psychosocial Education include employment opportunities in education, social work, counseling and other related fields. Employment may be found in various social service sectors including non-profit organizations and government agencies.
Some typical jobs in this field of work are career counselor, psychiatric technician, rehabilitation specialist, and case manager.

2.12.5 CURRICULAR PROGRAM

Students must meet the following degree requirements:

A. THE GENERAL EDUCATION REQUIREMENTS (30 CH)

Humanities and Fine Arts
ENG/110 - English Composition III
ENG/390 - Public Speaking
One course in English Literature
Social and Behavioral Sciences/Business
LAW/100 - International Law
SOC/300 - Sociology of Media and Communication
Mathematics, Natural Science and Computer Science
COM/105 - Introduction to Computer Science
One course in Mathematics
One course in Natural Science
Writing Intensive
ENG/320 - Digital Linguistics and Technical Writing (**W**)
Global Perspectives/Diversity
POL/200 - Global Poverty and International Responsibility (**G**)

B. CORE CURRICULUM (51 CH)

COM/275 - Environments and Technologies for Education
COM/445 - Multimedia Database
LAW/150 - Law in Digital Contexts
MAT/150 - Foundations of Probability and Statistics
PED/100 - Social History of Education
PED/200 - Didactics and General Pedagogy
PED/300 - Innovative Teaching Methodologies
PED/250 - General Teaching and Special Education
PED/360 - Digital Inclusion Processes and Open Educational Resources
PED/400 - Research and Evaluation in Digital Educational Contexts
PSY/150 - General Psychology
PSY/310 - Neurocognitive Bases of Learning.
PSY/250 - Development and Educational Psychology
PSY/320 - Psychology of Innovation
SOC/200 - Sociology of Digital Contexts
PED/495 - Senior project (6 CH)

C. MAJOR REQUIREMENTS (18 CH) - Students must choose one of the following areas of concentration:

Instructional Designers in Digital Contexts
COM/120 - Introduction to Web Design
COM/150 - New Media
COM/250 - Introduction to Digital Imaging and Visualization
COM/298 - Technologies for the production of Multimedia Content for Education
COM/410 - Learning Analytics
PSY/430 - Neural Learning and Deep Learning
Psychosocial Educators in Digital Settings
PED/350 - Digital Citizenship: Educational and Training Elements
PSY/350 - Psychology of Interactions in Digital Contexts
PSY/400 - Digital Technologies and Psychological Development
PSY/450 - Risk Behaviors and Conduct and Psychopathologies in Digital Contexts
SOC/220 - Sociopsychological Foundations of Digital Communities
SOC/350 - Digital Communities: Educational and Formative Elements

D. GENERAL ELECTIVES: All Students must select additional elective courses to complete an overall total of 120 CH.

2.13 MASTER'S DEGREES PROGRAMS

The graduate programs represent excellence in their respective curricular areas.
Master's degree programs aim to provide students with the following:

- quality through an international environment and a highly qualified faculty and student body
- Innovative skills and competencies
- career entry employment skills
- provide regional opportunities for private economic development through national and international development programming.

2.13.1 MINIMUM REQUIREMENTS FOR ADMISSION

Students must meet the following criteria:

1. A bachelor's degree from an American college, university, or equivalent from a non-US institution.
2. Applicants whose first language is not English must demonstrate knowledge of the English language. Students who attended university schools where English was the primary language of instruction for all subjects are exempt from this demonstration.
3. A GPA of **2.5** on a **4-point** scale or equivalent
4. Evidence of adequate knowledge to support a degree course:
   - To enter **Masters of Cybersecurity** or **Informatics** programs, students must know of the following:
     Those undergraduates who study in a different field than Information Systems, Artificial intelligence, Data Security, or related fields must take the following courses as prerequisites before entering the Master's programs.
     1. Calculus: This course covers topics in differential and integral calculus, which are foundational to many concepts in data analytics;
     2. Introduction to Programming: This course introduces basic programming concepts and languages, such as Python or Java;
     3. Statistics: This course covers basic statistical concepts, such as probability, hypothesis testing, and regression analysis; and
     4. Data Structures and Algorithms: This course covers the design and analysis of algorithms, as well as data structures such as arrays, linked lists, and trees.
   - To enter the **Master of Business Administration** program, students must have a bachelor's degree in business. Those students who do not have a bachelor's degree in business may satisfactorily demonstrate a proficient business acumen by completing the Beginning Certificate in International Business.
   - To enter the **Master of Arts, MA in Digital Education** program, students must have
     1. A Bachelor's Degree from an accredited higher education institution in Education, Digital Education, Instructional
        Design, Educational or Instructional Technology or related field.
     2. A Statement of Purpose that describes relevant academic and professional background, why you want the MA in Digital Education and how this degree will enable you to achieve both professional and personal goals.
     3. A resume or curriculum vitae or a written description of relevant experience in digital education, teaching, instructional design or related fields.
     4. Basic knowledge of computer science that includes, but is not limited to, fundamental concepts such as algorithms, data structures, programming languages, computer architecture, operating systems, and software engineering.

2.13.2 GENERAL REQUIREMENTS FOR THE ACQUISITION OF A MASTER'S DEGREE

To receive a Master's Degree, STU students must successfully:

1. Complete the curriculum with at least 36-45 approved credit hours, depending upon the specific degree's requirements
2. At least 70% of the coursework must be completed at STU.
3. Maintain a minimum of a 3.0 cumulative GPA on a 4-point scale.
4. Maximum of 9 credit hours may be transferred into a graduate program. All transferred courses must be a B or better.
5. All credits must be completed within five years of enrollment.

2.14 MASTER OF SCIENCE IN CYBERSECURITY

The Master of Science in Cybersecurity program provides a comprehensive understanding of cybersecurity methods, approaches, and concepts. It covers a wide range of cybersecurity techniques and continuously updates its content to address emerging issues and management solutions. The program explores cryptographic mechanisms and their application in securing computer systems and networks. It is designed for individuals with a solid foundation in information and communication technologies. The program also covers the nature, scope, and significance of cybersecurity, justifying and exploring critical concepts. It examines cybersecurity threats and the technological and procedural mechanisms employed to mitigate them. The role of cryptography in ensuring security, including the use of algorithms in security programs, is discussed. The program also highlights the crucial support function of management and how cryptography functions.

2.14.1 OBJECTIVES AND METHODOLOGY

The goals that the Master of Science in Cybersecurity aims to achieve are:

- Equip students with practical and applied skills to address the evolving demands of the cybersecurity field.
- Enhance proficiency in the latest tools, techniques, strategies, and technologies relevant to cybersecurity.
- Foster critical thinking abilities in analyzing how organizations manage security.
- Provide direct access to industry professionals who possess specialized expertise in key cybersecurity areas.
- Offer hands-on experience through real-world case studies that reflect contemporary challenges in the field.

2.14.2 JOB OPPORTUNITIES

The massive global use of data management and production with information technology has made it increasingly critical for professionals capable of ensuring cybersecurity in public and private institutions and companies, whether large or small. The professional profiles that are increasingly in demand and to which St. Thomas University is responding with the Master's program in Cybersecurity are:
Cybersecurity Expert; Data Protection Design; Chief Information Security Officer; Chief Information Officer; Chief Security Officer; Security Administrator; Security Architect; Security Engineer; Security Analyst; Ethical Hacker; Security Developer; General Data Protection Regulator; Digital Forensic Analyst; Data Protection Officer; and ICT Security Manager.

2.14.3 CURRICULAR PROGRAM - (36 CH)

COM/500 - Introduction to Cybersecurity
COM/505 - Cybersecurity Policy
COM/510 - Cyber Threat intelligence
COM/515 - Cybersecurity Architecture
COM/520 - Fundamental Security Management and Governance
COM/600 - Applied Cryptography
COM/605 - Network and Infrastructure Security
COM/610 - Software and Application Security
COM/615 - Cybersecurity Research Methods
COM/690 - Master Thesis or Capstone Project
and
Select two of the following four courses:
COM/517 - Cloud Security
COM/518 - Mobile Security
COM/519 - Wireless Security
COM/620 - Industrial Control Systems Security

2.15 MASTER OF SCIENCE IN ARTIFICIAL INTELLIGENCE SYSTEMS

Artificial Intelligence has gained a central position in society and economic systems worldwide. It radically changes our relationship with the significant issues of the contemporary world in health, security, production, transportation, and educational venues. The role of Artificial Intelligence is central to society and will continue to grow. At the same time, implementing computer systems that express such innovation requires a methodological and architectural foundation in software development and database design. The pathway of the Master of Science in Artificial Intelligence Systems incorporates the fundamental features of the changes taking place with a vision attentive to the future evolution of Artificial Intelligence and computer systems development. The major topics addressed include interoperability among information systems, database development (including multimedia), knowledge management, personalized information services, autonomous and multi-agent systems, web-centric services, data warehouses, and machine learning.

The Master of Science in Artificial Intelligence Systems offers two areas of concentration:

2.15.1 Methodologies and Applications with three subareas:

- Machine Vision
- Methodologies
- Intelligent Robots

2.15.2 Artificial Intelligence and Innovation

2.15.3 EDUCATIONAL OBJECTIVES AND METHODOLOGY

The Master of Science in Artificial Intelligence Systems primary objective is the training of professionals exceptionally competent in data and knowledge modeling, analysis of information flows and decision-making, machine learning, automatic problem solving, or, in general, in advanced techniques and models for the design and development of software and databases. Graduate students will be able to conceive, design, and develop information systems using modern artificial intelligence and distributed software systems development technologies. Students will have the skills necessary to solve problems posed by the growing need for integration and interaction between complex and potentially heterogeneous information systems. At the end of the master's program, Graduates should be able to operate autonomously for projects and facilities- attention to both the methodological-scientific training of students and the training of practical and design skills.

2.15.4 JOB OPPORTUNITIES

The occupational fields for this study are design, organization, management, and maintenance of complex information systems for organizations that use complex and possibly geographically distributed information systems. Particularly relevant for employment and professional advancement are computer systems for industry, services, health, science, culture, cultural heritage, and public administration. The innovative applications include artificial intelligence, machine learning, neural networks, soft computing, database, business process management, automatic natural language processing, human-computer interaction, and multimedia databases. Our graduates can work as software architects producing innovative computing solutions and services in research and development centers.

2.15.5 CURRICULAR PROGRAM

The master's program offers four different curricula:

A. CORE COURSES (24 CH) these courses provide the foundation for upper-level graduate courses.
COM/521 - Introduction to Robotics
COM/525 - Artificial Intelligence
COM/530 - Signal, Image, and Video
COM/535 - Natural Language Understanding
COM/621 - Human Machine Dialogue
COM/625 - Artificial and Biological Neural Systems
COM/630 - Artificial Intelligence and Innovation
COM/690 - Master Thesis or Capstone Project

B. CONCENTRATION AREA (9 CH)
To complete the Master's degree in AIS, students must choose an area of concentration by selecting the most relevant to their career goals. All courses build on what students have learned in the core courses of the Master in Artificial Intelligent Systems program.
Students should consult their advisor about scheduling to plan to complete the curriculum.

Methodologies and Applications

- **Computer Vision**
  COM/522 - Computer Vision
  COM/523 - Advanced Computer Vision
  COM/524 - Trends and Applications of Computer Vision

or

- **Methodologies**
  COM/526 - Advanced Computer Vision
  COM/527 - Advanced Topics in Machine Learning and Optimization
  COM/528 - Optimization Techniques

or

- **Intelligent Robots**
  COM/531 - Distributed Robot Perception
  COM/532 - Optimization Based Robot Control
  COM/533 - Robot Planning and its Application

Artificial Intelligence and Innovation
COM/536 – Bio-Inspired Artificial Intelligence
COM/537 - Innovation and Entrepreneurship Basic
COM/538 - Sensing and Radar Technologies

C. GENERAL ELECTIVES: one course chosen by the student and sufficient for it is enough to complete an overall total of 36 credits:
COM/540 - Analysis and Visualization of Complex Networks
COM/541 - Performance Evaluation: Simulation and Modeling
COM/542 - Bioinformatics
COM/543 - Natural Language Technologies
COM/544 - Analysis and Processing of Digital Signals

2.16 MASTER OF BUSINESS ADMINISTRATION

The Master of Business Administration is designed for students who have completed a Bachelor of Business Administration or earned a similar degree from a recognized university and wish to develop their management skills to advance their professional careers. Those students who have not earned a bachelor's degree in business are required to complete the Beginning Certificate in International Business.

St. Thomas University offers a Master's in Business Administration emphasizing a synergistic interdisciplinary approach to innovative and sustainable business concepts and practices. The degree integrates dominant paradigms in management, sociology, ecology, and technological innovation to provide tomorrow's business leaders with the skills vital for success. Tomorrow's business leaders cannot simply follow the examples of their predecessors. The next generation must seek to promote financially sound, ecologically sustainable, and socially just initiatives within their organizations and economic spheres. Companies must pursue sustainable practices and actively meet current trends. They must meet the social and governmental challenges for change. The curriculum is structured to give students a foundation in traditional business practices and the latest sustainability principles in business operations. In addition to core materials and philosophy, the international and cultural diversity of the student body, faculty, and staff combine to provide a rich learning experience.
STU's MBA program offers five different curricula:

2.16.1 Green Management, Energy, and Corporate Social Responsibility

The Master's degree in Business Administration with a concentration in Green Management, Energy, and Corporate Social Responsibility prepares students to apply sustainable development skills and respond to the needs and potential for social transformation. **The program focuses on global development and environmental problems recognized in international agreements. It also explores how to find solutions to these challenges by promoting sustainable development, which is becoming the focus of business models.** Economic sources must strike a balance between profitability, social equity, and environmental responsibility based on both culture and philosophy that transforms the organizational structure and succeeds in making Corporate Social Responsibility n, not an industry issue but the very DNA of companies that promote the country's development. The master's degree aims to provide a space for reflection to promote sustainable development, as well as the result of critical, analytical, and integration skills for solving environmental and sustainable development challenges.

2.16.2 International Banking and Finance

The Master of Business Administration with a concentration in International Banking and Finance provides students with an in-depth analysis of how the banking industry works, the risks and challenges it faces, and the regulatory framework. This area of specialization focuses on the **role of banks and other financial institutions, where the main types of financial institutions and the risks they face will be discussed**; bank liquidity management and systemic risk; the regulatory framework, with a focus on capital requirements and the resolution framework; and the challenges for the financial industry due to the interest rate environment and the Covid-19 crisis. Special attention will be paid to banks that operate exclusively online.

2.16.3 Marketing and Digital Communication

The Master of Business Administration with a concentration in Marketing & Digital Communication is aimed at those who want to acquire the tools to implement **omnichannel and customer-centric digital marketing plans**. It is dedicated to students who, alongside the skills acquired in business administration, want to grow professionally in marketing and digital communication.

2.16.4 Cyber Risk Strategy and Governance

The Master's degree in Business Administration with a concentration in Cyber Risk Strategy and Governance focuses on studies principles and **economic, managerial, and legal aspects related to cyber risk** to develop skills and soft skills to build relationships at all levels of an organization, influence strategic decisions, and implement actions necessary to limit risks in the age of the digital economy.

2.16.5 Circular Economy Management

The Master's degree in Business Administration with a concentration in Circular Economy Management aims to train professionals capable of operating in the markets of end-of-life product management, recycling of raw and secondary materials, energy saving, sustainable mobility, and in the implementation of industrial symbiosis projects by closely combining production, environment, and business. The Circular Economy, **now considered the fourth industrial revolution**, radically influenced production and distribution processes in the prevailing part of economic sectors. It represents an opportunity for sustainable development and requires a widespread and radical renewal of managerial skills.

2.16.6 EDUCATIONAL OBJECTIVES AND METHODOLOGY

The main objective of the Master of Business Administration degree is to provide the in-depth preparation in knowledge and skills needed to succeed in managerial roles in general management as well as functional directorates in various types of companies operating in diverse sectors. In particular, the focus is on organizational behavior negotiation techniques and change and innovation management important for holding managerial and coordinating positions. The knowledge and skills necessary to:

- use quantitative data processing methodologies to support decision-making processes;
- interpret the global macroeconomic and geopolitical scenario to contextualize business activity and identify development opportunities and threats;
- enhance the sustainability of business activity, including the perspective of process quality and environmental protection;
- understand the regulatory and fiscal environment in both national and international contexts;
- determine the business's financial needs and how best to meet them;
- assess the exposure of businesses to the various types of risks and develop plans to contain exposure;
- interpret and process economic and financial information for business performance planning, control, and evaluation;
- identify management and business development strategies best suited to the contextual conditions.

The curriculum includes a series of core teachings aimed at delving into business management from the perspective of complex, multi-national organizations. After the core teachings, students select their specialization. Students will prepare a final thesis on developing and deepening the skills acquired in the selected field. In lieu of a thesis, students may choose to do a project report. Both the thesis and project report are guided and directed by a faculty member.

2.16.7 JOB OPPORTUNITIES

STU offers an MBA education emphasizing a synergistic interdisciplinary approach to mastering sustainable business concepts and practices. Its educational philosophy integrates the dominant paradigms in management, sociology, ecology, and cultural studies to develop the skills tomorrow's business leaders will need to thrive in the business world. After the MBA, the graduates can work in any field of economics, from local businesses to the high financial world.

2.16.8 CURRICULAR PROGRAM

A. CORE COURSES: these courses provide the foundation for graduate courses.

BUS/555 - Advanced Accounting
BUS/560 - Corporate Finance
BUS/565 - Quantitative Methods for Decision Making
BUS/570 - Ethics, Law, and Business
BUS/575 - Marketing Strategy and Implementation
BUS/585 - Organizational Theory and Operations Management
BUS/590 - Global Economics
BUS/605 - E-Commerce
BUS/610 - Business Strategy
BUS/612 - Entrepreneurship

B. CONCENTRATION AREA: Students must choose a concentration area and select three courses to complete their MBA. The courses build on what students have learned in the MBA core courses and allow students to choose the courses that will be most relevant to their career goals. Students should consult with their advisor about scheduling and availability of classes to plan their second year of study accordingly.

Green Management, Energy, and Corporate Social Responsibility

BUS/620 - Corporate Social Responsibility
BUS/621 - Sustainable Supply Chain Management
BUS/645 - Sustainability Strategies
BUS/646 - Energy Economics
BUS/647 - Economics of Renewables and Energy Saving Technologies

International Banking and Finance

BUS/613 - Advanced Applied Finance
BUS/614 - International Financial Statement Analysis
BUS/615 - Money, Banking, and Financial Markets
BUS/619 - International Corporate Governance
BUS/634 - Venture Capital and Entrepreneurship

Marketing and Digital Communication

BUS/648 - Web marketing and digital advertising
BUS/649 - Digital communication goals: branding and performance
BUS/650 - Digital communication strategies

BUS/660 - Influencer marketing
BUS/670 - Reputation and crisis management

Cyber Risk Strategy and Governance
BUS/635 - Strategy and Governance for Cyber Risk
BUS/636 - Methods and Data Analytics for Risk Assessment
BUS/637 - Institutional Scenarios of Cyber Risk
BUS/638 - Data Protection
BUS/639 - Business and Cyber Intelligence

Circular Economy Management
BUS/640 - Circular Economy and Circular Districts
BUS/641 - Circular Economy as a New Economic Paradigm
BUS/642 - Benefits of the Circular Economy on the Environment
BUS/643 - Circular Economy as a Business Model
BUS/645 - Collaboration and Circular Economy in the City

C. RESEARCH AND PROFESSIONAL PRACTICE (3 CH)
BUS/690 - Capstone Project

2.17 MASTER OF ARTS, MA IN DIGITAL EDUCATION

The Master of Arts in Digital Education provides graduates with the knowledge and the skills to assume coordinating roles in the design, development and delivery of educational content in digital formats. Students will advance their knowledge and skills in the use of technology to create engaging and effective learning experiences that meet the needs of diverse learning and learners in a variety of contexts. The Master's degree in digital education also advances students' education and training in several important relevant areas including the socio-psychological and pedagogical sciences, as well as philosophical, legal and applied computer sciences. The St. Thomas MA in Digital Education responds to the ever growing social and economic demands for continuous and progressive technological advancements associated with current and future educational issues and needs. A minimum of 36 Credit Hours is required for graduation which includes 6 Credit Hours for the Capstone Project.

General graduate coursework may include

- Instructional design principles and practice
- Digital media and educational technology
- Distance learning and online education
- Multimedia design and development
- Educational research methods
- Technology integration in a variety of learning contexts
- Educational technology and leadership

The St. Thomas MA in Digital Education also offers students the opportunity to focus their study on one of two areas of emphasis:

2.17.1 Instructional Design

An emphasis on Instructional Design will advance students' knowledge and skill to develop effective and engaging learning experiences for diverse learners in a variety of learning environments. Instructional designers use various multimedia tools and technologies to create educational content that is engaging, interactive, and tailored to learning and learner needs. Students who wish to emphasize Instructional Design may select courses such as:

- Instructional design theories and models
- Learning theories and applications
- Instructional media design and development
- Evaluation and assessment of learning
- E-learning and technology integration
- Project management for instructional design
- Adult learning

2.17.2 Psychosocial Educator in Digital Settings

An emphasis on psychosocial education in digital settings will focus study at the intersection of psychology and education to highlight how psychological and social factors influence learning and cognitive development. Students will advance their knowledge through the study of a range of topics related to psychology, education and the social sciences as they pertain to cognitive psychology, child development, educational assessment and counseling. Students who wish to emphasize the psychosocial aspects of digital education may select courses such as:

- Educational psychology and human development
- Learning theory and instructional design
- Social and cultural factors in education
- Assessment and evaluation in education
- Counseling and therapeutic interventions
- Special education and inclusive education

2.17.3 EDUCATIONAL OBJECTIVES AND METHODOLOGY

The courses of study for the MA in Digital Education at St. Thomas University provide students with a firm academic foundation. They also provide important learning activities so that students may acquire the relevant disciplinary and methodological knowledge and skills associated with the current state of the art in educational technology, as well as their functional integration. Upon completion of their studies a graduate will have also acquired an in-depth knowledge of communication languages and technologies, the techniques involved in the production, circulation and use of teaching and learning technologies and communication flow in digital systems. Graduates will have learned, practiced and developed their ability to use a wide range of communicative resources.

These resources will be enhanced and mediated by

- online and offline technologies
- formal and informal learning pathways
- the design and evaluation of a variety of educational and training interventions, and
- through the development of a critical sense and awareness of communicative phenomena in order to design, implement and enhance digital products for diverse learners in a variety of learning environments.

2.17.4 JOB OPPORTUNITIES

Graduates of the MA in Digital Education at St. Thomas University may pursue careers in many different areas wherever there is a convergence between education and digital didactics and digital pedagogy. They will be well prepared to integrate themselves in formal and informal education and training environments, and in numerous public and private sector organizations. For example:

- Instructional designer
- E-learning developer
- Online course instructor
- Training developer
- Learning and development specialist
- Educational technologist
- Curriculum developer
- Educational researcher
- Consultant
- Nonprofit leader
- Government employee

In addition, careers and employment may be found in cultural entertainment and leisure sectors, in the work of risk prevention in adolescence, in the corporate and editorial sectors of media production, and in the training of trainers on media education issues in a variety of sectors.

2.17.5 CURRICULAR PROGRAM

All students are required to complete 36 Credit Hours for the MA in Digital Education. This includes 6 Credit Hours for their Capstone Project.

A. CORE CURRICULUM (18 CH) - The Core Curriculum is composed of 6 courses, each of which is a 3 Credit Hour course.

PED/560 - Pedagogy and Learning
PED/580 - Information Technology Methodologies for E-Learning
PED/600 - Design and Evaluation of Online Pathways
PED/610 - Digital Communication
PED/650 - Education in the Knowledge Society
PED/660 - E-Learning and Digital Education Research Methods

B. CONCENTRATION AREA (12 CH) - Students must choose an area of concentration and select four courses to complete their MA in Digital Education:

Instructional Design
PED/550 - History of Education and Communication Processes
PED/590 - Promotion and Monitoring of Digital Culture and Research
COM/575 - Conceptual Modeling for the Semantic Web
COM/635 - Ethics, Society, and Privacy
PED/665 - Reading and Conference - Independent Study
PED/670 - Research - Independent Study

Psychosocial Education in Digital Setting
PSY/600 - Educational Psychology and Multimedia Learning
PSY/610 - Machine Epistemology
PSY/620 - Social Psychology: Counseling Techniques for Education
SOC/600 - Sociology of Digital Media
PED/665 - Reading and Conference - Independent Study
PED/670 - Research - Independent Study

C. CAPSTONE PROJECT (6 CH)

D. ADDITIONAL COURSES - Students who want to deepen topics can choose up to 4 non-compulsory courses from the ones below:

PED/570 - Innovative Tools for Teaching
SOC/610 - Digital Innovation and New Welfare
COM/555 - Natural Language Processing
HIS/600 - Digital Bibliography and Librarianship
LAW/600 - Information and Media Law
LAW/650 - Criminal Law of Information Technology

3. ADMISSION PROCEDURES

3.1 APPLICATION AND ADMISSION

St. Thomas University operates an open admissions policy.

3.2 MINIMUM PROGRAM ADMISSION REQUIREMENTS

A. A student must have earned the following degrees before applying to enroll at STU:
- Secondary school diploma (or equivalent) for enrollment in degree programs.
- Bachelor's degree (or equivalent) for enrollment in master's programs.

Suppose the secondary school diploma, Bachelor's degree, or Master's degree is not earned in the United States. In that case, it is required that the degree submitted allows for university enrollment in the applicant's home country.

B. A student who intends to enroll in an undergraduate or graduate program whose native language is not English must demonstrate proficiency in English.

This proficiency may be demonstrated in one of the following ways:

1. demonstrating that they attended a high school or university where English was the primary language of instruction for 75 percent of all subjects or courses;
2. Provide the results of one of the following tests:

   TOEFL® exam - Test of English as a Foreign Language: Passing score 213

   TOEIC® exam - Test of English as an International Communication: Passing score 750

   IELTS® exam - International English Language Testing System: Passing score 6.5

   CAMBRIDGE ENGLISH ASSESSMENT: Passing score 170

STU recognizes the **International Baccalaureate Diploma Program** as a recognized college-preparatory program for credit and actively seeks students with this academic preparation. The University considers Diploma candidates for advanced standing. Receiving up to a full year's credit (30 credits) is possible. Higher level courses will be considered on a course-by-course basis with a grade of 3 or better for credit toward an STU equivalent course to be determined by the Registrar in consultation with the appropriate Dean of Schools.

3.3 ENROLLMENT PROCESS

A student who wishes to enroll must have the following documents received:

A. **Application form:** must be filled out in its entirety and sent to: admissions@sthomasuniversity.org

B. **Official transcripts:** The student must send official transcripts of all secondary and post-secondary education up to that point. All non-U.S. transcripts must be accompanied by a credential evaluation from IEE, Span Tran, WES or another AACRAO approved accredited evaluation company. Third party evaluations must include:
- Course by Course evaluation,
- Grade Point Average (GPA) as compared with U.S. grading system,
- U.S. equivalent of degree,
- Copy of transcript(s),
- Accreditation of institution(s)

Third party evaluations must include the transcript attached to the report.

In any case, the student must submit the original or a certified copy of their academic records.

C. **Copy of an identity document:** must be an official government-issued and valid document.

Documents should be **anticipated by e-mail along with the application** to the above address and then mailed to the address:

ST. THOMAS UNIVERSITY - Admissions Office
15720 Brixham Hill Avenue, Suite 300
Charlotte, North Carolina 28277

Documents must all be in English. For original documents in another language, these must be translated by the U.S. Consulate in the country where the student resides.

3.4 CREDIT RECOGNITION

A student, who intends to request recognition of examinations, coursework, or other activities, including activities relevant to the degree program of interest, must submit a request for credit recognition and abbreviation exclusively by completing the Credit Hour Recognition.

3.5 ADMISSIONS

STU recognizes three admission statuses:

- **Admitted:** a student is accepted when the admissions office has received and evaluated all documents submitted and all admission requirements met.

- **Provisional:** students who submit incomplete information or documentation may be placed in provisional admission status until STU receives all necessary information or documentation to make an appropriate admission decision. Students may take a maximum of three courses in temporary admission status. Students must obtain full admission and enroll in the fourth course.
- **Denied:** the applicant for admission has violated STU policy procedures.

All students seeking admission to STU are responsible for submitting a complete and accurate application, including all required academic and professional credentials.

Submission of incomplete, false, or misleading information is grounds for dismissal at any time.

4. ACADEMIC POLICIES

4.1 ATTENDANCE POLICY

A successful academic experience depends on collaboration between faculty and students. At STU, participation in lessons and discussions is an integral part of the learning process, and the student must seek assistance from the tutor advising as needed.

4.1.1 GOOD STANDING

A student is considered in Good Standing when the semester grade point average (GPA) and cumulative GPA are 2.0 or higher (undergraduates) or 3.0 (graduates) or in initial Good Standing during the first semester after transferring from another college or university, regardless of the transfer GPA.

4.1.2 DISQUALIFIED FOR VERIFICATION

Students who have been admitted with provisional admission status and still need to receive verification or official academic documents by completing the third course may only attend classes or change programs once documentation is received.

4.1.3 ACADEMIC PROBATION

At the end of three courses, students with a grade point average (GPA) below 2.0 for undergraduate and 3.0 for graduate students, the Academic Standards Committee will inform students of their placement on academic probation. During academic probation, students may take three more courses and maintain an average of 2.0 for undergraduates and 3.0 for graduate students or better. It must be done within a one six-month period. If a student cannot maintain significant improvement, the university can exercise the right to dismissal.

4.1.4 ACADEMIC SUSPENSION

Students on Academic Probation will be placed on Academic Suspension if:

(a) After the granted probationary period, they maintain a GPA of less than 2.0. for undergraduates or 3.0 for graduates.

(b) For failing to achieve the minimum required grade after the second attempt of a course required for progression in their degree program.

Academic suspension is notified to the student by the Registrar and prohibits enrollment in courses and the university for six months. After an academic break of six months has passed, students may be readmitted. The student must apply for readmission by the University's admission procedures, explaining the reasons for their previous academic deficiencies and why they should be readmitted. The Academic Standards Committee will review the readmission file and decide on readmission. If approved, the student must complete all program requirements in effect at the time of reinstatement and will be placed on Academic Probation for the first three courses and must maintain a cumulative average of 2.5 for undergraduates or 3.0 for graduates to avoid permanent academic suspension.

The University will note on the student's transcript the date the student was placed and removed from academic suspension.

4.1.5 ACADEMIC SUSPENSION REVIEW

The Provost shall review the records of students proposed for academic suspension and submit to the Academic Standards Committee that a student whose history shows promise of success in achieving a cumulative grade point average of 2.5 (for undergraduates) or 3.0 (for graduates) be retained on academic probation for an additional three courses.

4.1.6 DISCIPLINARY SUSPENSION

Students may be suspended from the University for some time or indefinitely due to violating the Student Code of Conduct. The University will note on the student's transcript and personnel record the date the student was placed on and removed from academic suspension.

4.1.7 APPEAL TO ACADEMIC SUSPENSION

Students can appeal an academic suspension by completing the Academic Suspension Appeal Form. The appeal must be submitted to the Academic Standards Committee within one week of receiving notification of the rest from the University.

4.1.8 PROGRAM COMPLETION DEADLINES

Program completion deadlines have been established for all programs offered by the University and apply to all continuously enrolled students. Program completion deadlines are calculated based on the first date of positive recorded attendance in the first program-suitable course and are listed below:

Program	Years for Completion
Bachelors	Within seven years
Masters	Within five years

Please Note: *For any questions about progression requirements or academic disqualification, the student must contact the approximate university office.*

4.1.9 DEACTIVATION OF COURSES OF STUDY

In the case of deactivation of an undergraduate or master's degree program, STU guarantees students already enrolled the completion of their studies and the attainment of the relevant degree while still regulating the option for the same students to opt for enrollment in other activated courses of study.

4.2 COURSES POLICY

4.2.1 COURSE PREREQUISITE WAIVER

A student may register for courses even if they do not meet the prerequisite requirement with the permission of the course faculty member to waive the prerequisite. A student without prerequisites or the faculty member's consent to waive conditions will be automatically dropped from a course unless the Registrar's Office has received proof of prerequisite completion or the prerequisite waiver approval form.

4.2.2 MAJOR

During the admission process, students will have the opportunity to choose one of STU's majors. If students do not declare their major at admission, they will be classified as undeclared majors.
After admission and enrollment, students may declare or change their major by completing the Declaration and Change of Major or Concentration form in the Registrar's Office.
As specified in each degree program, applicants must fulfill all course requirements to graduate. If the student decides to change majors, they must inform their faculty advisor and complete a new declaration of change of major or concentration form. Students are required to declare a major by the completion of 60 credits.

4.2.3 PROGRAM CHANGES

Students who wish to change their course of study may consult their academic representative. The student must sign a new enrollment agreement and meet the admission requirements of the new program. The student must then complete the curricular or degree requirements of the new program. If some previously completed courses meet some provisions of the new program, these are recognized.

4.2.4 REPEATING A COURSE

A student may choose to repeat a course for which an "F" grade has been assigned. The "F" grade will remain on the student's transcript regardless of the passing grade for the repeated course.
The new passing grade, not the "F," will be counted in the cumulative GPA, and a mark of "NC" (No Credit) will be placed next to the original "F" grade on the transcript.
Only in exceptional cases may a student repeat a course for which they have earned a passing grade, and they must obtain permission from the Academic Standards Committee. This may be done only once, and the second grade will determine the GPA. The student must submit a written request to the Academic Standards Committee for permission.
The repeated course must be identical to the original system in title and credits. Some changes to the curriculum may require an exception. Credit for a course may be given only once.
If the student receives a grade of W in the repeated course, the previous step will remain in the student's cumulative GPA.
Courses taken at other institutions cannot be used to replace grades earned.
Students must file a repeat request form with the Registrar's Office whenever they wish to repeat a course.

4.2.5 INCOMPLETE COURSES

Students may petition the Academic Standards Committee in cases where they believe they have a justifiable reason for failing the course or being absent from the final exam. Such petitions must be submitted in writing to the Dean of the School at least seven days before the termination date of the course in question. If the petition is approved, a grade of "I" (Incomplete) is assigned.
After completing all course requirements, the instructor will review the student's final grade. It is STU's policy that incomplete work must be completed within the first month following the date the Incomplete was assigned. The professor and the Academic Dean will decide the due date for completing the work.
If the student fails to finish the Incomplete work by these deadlines, the "I" grade will become an "F" grade, which is a failure for that course.
Students must complete a course completion agreement form available in the Registrar's Office. The form must be signed by both student and faculty member and submitted to the Registrar's Office for the "I" grade to be recorded.

4.3 TRANSCRIPT AND GRADING POLICY

4.3.1 OFFICIAL TRANSCRIPT

Formal report cards are available on the student website at the end of each course. The grade reports indicate the approach taken, the credits received, and the grade assigned. **If a student has not paid tuition and fees for a period, the rate will be withheld until payment.** Faculty are required to post final grades within seven days of course completion.

4.3.2 ACADEMIC STANDING

St. Thomas University has established the following grading guidelines adhered to by the faculty.
STU uses the 4.00 scale to evaluate students' academic performance, where 4.00 is the highest grade, and 0.00 is the lowest. Before STU calculates grades using the 4.00 scale, the faculty member assigns letter grades on the 100-point scale based on each student's performance in their class.

	Points/100	Letter Grade	Grade Point Average
Outstanding	93-100	A	4.00
	90-92	A-	3.67
Above Average	86-89	B+	3.33
	82-85	B	3.00
	79-81	B-	2.67
Average	76-78	C+	2.33
	72-75	C	2.00
Below Average	69-71	C-	1.67
	66-68	D+	1.33
	63-65	D	1.00
	60-62	D-	0.67
Failure	0-59	F	0.00

A = Outstanding Achievement. The student demonstrates intellectual initiative in achieving course objectives through a high level of originality and creativity.
B = Excellent work. Student's performance meets course objectives by demonstrating a good understanding of course material.
C = Average work. The student's performance demonstrates average understanding and satisfactory achievement of course objectives.
D = Acceptable work. The student's performance demonstrates acceptable performance in meeting course objectives.
F = Fail. The student's performance could be better or below the minimum threshold of acceptability in meeting course objectives.
The following grades do not have a numerical equivalent and are not used in GPA calculations:
I = Incomplete. The grade assigned to the student who has been granted an extension to complete assignments. If the student completes the course, the "I" grade will be replaced with the grade earned, and the "I" grade will no longer be displayed on the student's record.
P = Pass. The student has satisfactorily completed the course.
W = Withdrawn. The student has withdrawn from the course.
NC = No credit.

Please Note: *D- is the minimum grade to pass a course; however, students are reminded that a GPA of 2.5 for undergraduate studies and 3.0 for Master's courses must be maintained for course continuation.*

4.3.3 GRADE POINT AVERAGE

The University uses the numerical value of a letter grade to compute the student's Grade Point Average (GPA). Grade Value represents the numerical value associated with a letter grade. The sum of all grade values earned for each class is called the GPA Points. The number of Grade Points earned in one course is determined by multiplying the Grade Value by the credit hours earned in the class. For example, a grade of "A" in a 3.00 credit hour course will contribute 4.00 (grade value) x 3.00 (credit hours) = 12 Grade Points to a student's GPA. GPA Credit Hours is the sum of the credit hours for courses with a grade of "A" through "F."

Please Note: The credit hours for courses in which a grade of "F" is earned will NOT be counted towards degree credit, but they are counted in the GPA calculation.

The GPA is the sum of the grade points for all courses divided by the total number of GPA Credit Hours for all courses attempted. Please refer below for a sample GPA calculation.

Course	Credit Hours Attempted	X	Letter Grade (Grade Value)	=	Grade Points
	3		A (4)		12
	3		B (3)		9
	3		B (3)		9
	4		C (2)		8
TOTALS	13				38

Grade Points		CH attempted		Grade Point Average
38	÷	13	=	2,923

The letter grade for each course and the cumulative GPA appears on the university transcript.
Grades are reported to the registrar's office and recorded at the end of each course.

4.3.4 GRADE AND TRANSCRIPT REPORT POLICY

- At the end of each course, the lecturer sends and publishes each student's grades.
- Grades are available to students who have paid all fees and tuition due.
- Students can view their course information, including grades, GPA, program information, and scheduled courses, online at register@sthomasuniversity.org.
- Grades cannot be communicated to students by phone.
- Student's official transcript shows courses, grades, credits, and teaching dates for each course.
- Credits earned are recorded on the transcript as assigned, and grading fees are paid.
- The transcript shows only a summary of credits transferred by the institution.
- The deadline for changing an incomplete grade is seven days from receipt of the student's completed assignments Students must wait approximately two weeks to change their rates.
- If a student repeats a course, only the grade and credit from the most recent repeat are used to calculate the total hours earned and cumulative grade point average. Still, the original quality and the repeated grade remain on the transcript, indicating that a particular course was repeated.
- Transcripts will be issued only to students who have paid all tuition, fees, and fines.
- Transcript request forms are available online.
- The Family Education Rights and Privacy Act of 1974 requires that all mailed transcript requests be submitted in writing and signed by the student.
- Students can request official transcripts from the University website by following the directions for requesting a transcript.
- The University cannot release transcripts received from other institutions. Copies of such transcripts must be requested from the originating institution.
- All official transcripts sent to St. Thomas University become the property of the University and will not be returned to the student.
- All student academic records must be retained, protected, and disposed of by local, state, and federal regulations.
- All student information is maintained in the University's computer system on paper and an electronic imaging system.

4.3.5 DISPUTING GRADES

Students who dispute a grade received may contact the Dean of the School or designee, who will help them get the faculty member to discuss the grade dispute. The faculty member's decision is final.
A grade dispute must be initiated within one week after the grade is posted. Grade disputes are not appealable outside the University.
The faculty member may only change student grades after grades are posted if the student initiates the formal grade challenge procedure or if the faculty member determines that the actual rate was improperly calculated.
Student grades represent the work and level of knowledge achieved during regularly scheduled course dates. Students may not submit work to increase their grades after the end of the course, as this grade would no longer reflect the level of proficiency achieved at the end period course.

4.3.6 APPLICATION FOR GRADUATION AND CONFERRAL OF DEGREE

Students must apply for graduation to obtain the degree. Once graduation requirements are completed, students can download the application form directly from the student section of the website. If, for some reason, the state cannot be downloaded; the student should contact their academic representative to obtain a copy of the graduation application. Once the Registrar's Office has received the graduation application and verified that the student has fulfilled their

financial obligations to the University and that all academic requirements for graduation have been met, a diploma will be issued to the student. A transcript will be ordered and mailed.

4.3.7 PARTICIPATION IN THE GRADUATION CEREMONY

St. Thomas University organizes graduation ceremonies in which undergraduate and graduate students who have completed all required credits for graduation and are in good standing can participate.
Graduation ceremonies are held at the learning centers of the University according to a schedule that will be posted on the University's website.
When a student submits the graduation application form, they must indicate whether they intend to participate in the graduation ceremony and reserve their cap and gown for the ceremony. Students may only attend the graduation ceremony with a lid and dress.
The university recognizes as an online university that student physical participation in a graduation ceremony will be limited because of time, place, and cost - an online graduate ceremony will be arranged.

4.3.8 DIPLOMA REGISTRATION

Diplomas are recorded on the student's transcript every month. A student's certificate is recorded on their transcript on the last day of the month after completing all graduation requirements. Graduation requirements are considered fulfilled when all credits are on the academic record. The date of completion of the student's degree is recorded on the transcript, indicating that all academic graduation requirements have been metate.
Diplomas are ordered with the graduation registration date for all students who have completed degree requirements and paid all fees and tuition.
Diplomas are processed and mailed approximately two weeks after graduation.
Students ineligible for graduation are informed by their academic representative of their deficiencies.

4.3.9 GRADUATION WITH HONORS

Students who complete their degree with a grade point average of 3.85 or higher graduate with honors. The Honors designation will appear on the university diploma and permanent transcript.

4.3.10 HONORARY DEGREE

The university will grant honorary degrees based on service to the university mission and academic initiatives.

4.3.11 RECORDS RETENTION AND DISPOSITION

The maintenance, retention, and disposition of documents relating to student educational records are governed by institutional policy.
A listing of documents and disposition schedules filed in the Registrar’s Office includes:

- The permanent academic records of students **are retained indefinitely.**
- Applications for admission and–admission, transcripts issued by other institutions, military service documents, undergraduate admission evaluations, national testing results, program changes, and pertinent correspondence **are retained for five years** after the student’s last date of attendance.
- University policy prohibits the reproduction of transcripts and similar documents issued by other educational institutions.

5. TUITION AND FEES

5.1 TUITION AND FEES POLICY

STU's course tuition and related costs are aimed at international students primarily from low-income family areas.
The decision to offer lower tuition fees than those charged by U.S. universities is consistent with STU's mission, which addresses its interest as an institution of higher education in countries where access to quality university programs is still tricky because of the costs required to attend them.

1. Tuition and fees are set annually by the Board of Trustees.
2. Students are considered academically in good standing if fees and contributions have been paid according to the terms agreed upon at the time of enrollment.
3. The student may choose two contractual modes of payment:
   A. The first is one in which the student sets the entire undergraduate or master's degree program while keeping **the same annual amount from enrollment until graduation.**
   B. The second is one in which the student fixes payment on a course-by-course basis, **updated annually**.
4. The annual increase that will be applied based on North Carolina trends will be calculated on an annual basis.
5. STU must receive the amount in full. The student is responsible for the fees charged by the bank to make the transfer.
6. STU is not responsible for charges or penalties for payments with debit cards or other restrictive payment cards.
7. Automatic payments are set up before each course upon request.
8. Administrative fees must be paid at the same time as enrollment.
9. STU must know who is responsible for paying the fees. If this person is NOT the student, a statement of financial responsibility must be completed using the form on the STU website to confirm acceptance of payment obligations. The person(s) responsible must inform STU of any change of address or bank details.
10. In case of late payment, the student's registration may be cancelled, with an additional fee for re-registration.

If you have any questions, please email: **bursar@sthomasuniversity.org**

5.2 TUITION AND FEES PRICE

Course prices offered by St. Thomas are aimed at international students primarily from low-income family areas.
The decision to provide lower tuition fees than those charged by several U.S. universities is consistent with STU's mission, which addresses its interest as an institution of higher education in countries where access to quality university programs is still tricky because of the high costs required to attend them.

The prices below refer to attendance at St. Thomas University's online virtual campus.

TUITION PRICE

CERTIFICATE PROGRAM		**Beginner $ 1,200 Advanced $ 1,450**		
UNDERGRADUATE PROGRAM	Tuition cost by credit $ 150	1 course = 3 CH Five weeks $ 450	Annual 30 CH $ 4,500	**Four-year degree program 120 CH $ 18,000**
GRADUATE PROGRAM	Tuition cost by credit $ 200	1 course = 3 CH Six weeks $ 600	===	**Master's program Minimum 36 CH $ 7,200 Maximum 45 CH $ 9,000**

ADMINISTRATIVE AND RESOURCES FEES

Certificate program	===		$ 180
Undergraduate program	Annual $ 300	Four years	$ 1,200
Graduate program	===	Full Master's program	$ 500

5.3 PAYMENT METHOD

The student can make payments by credit or debit card, or by bank transfer in the manner specified below:

1. **By credit or debit card:** if the student has completed the debit authorization form, the tuition, and mandatory fees will be charged to that card. Payments must be made through our website in the: **Secure Online Payment**

1. **By direct bank transfer wire.** The bank document must contain information about the student: last and first name, date of birth, and course in which the student is enrolled.

   A) If made from the **UNITED STATES and CANADA** enter the following information:
   Bank: WISE Bank - 30 W. 26th Street, Sixth Floor - New York NY 10010
   Beneficiary: ST. THOMAS GLOBAL AMERICAN LEARNING
   Routing Number ACH e wire: 026073150
   Account Number: 822000414292

   B) If made from countries **OUTSIDE the U.S. and Canada** enter the following information:
   Bank: WISE Bank - 30 W. 26th Street, Sixth Floor - New York NY 10010
   Beneficiary: ST. THOMAS GLOBAL AMERICAN LEARNING
   Routing Number: 026073150
   BIC/SWIFT: CMFGUS33
   Account Number: 822000414292

   Please Note: *The Bank does not accept payments from the countries listed below which will be returned to the sender:*
   Africa
   Burundi, Central African Republic, Chad, Democratic Republic of Congo, Eritrea, Guinea-Bissau, Libya, Somalia, South Sudan, Sudan.
   Americas
   Cuba, Venezuela
   Asia
   Democratic People's Republic of Korea (North Korea)
   Europe
   Belarus, Crimea, Russian Federation, Serbia.
   Middle East
   Afghanistan, Iran, Iraq, Syria, Yemen.

To ensure that the payment has been processed correctly, the student should send a copy of the payment form to the email address: **bursar@sthomasuniversity.org.**

5.4 CANCELLATION AND REFUND POLICY

Students withdrawing from STU must notify the Office of the President and Registrar in writing immediately. Any financial adjustments are calculated when the Office of the President and Bursar receives written notification.
All withdrawals require the approval of the President. The student is considered enrolled, and their academic and financial responsibility continues for all courses they have registered until the President's Office notifies them that the withdrawal has been approved and accepted.
The student will retain the right to a refund if they comply with the withdrawal procedure described above.
Stopping payment or not attending classes does not constitute a withdrawal.
No refund will be given for unofficial withdrawal or dismissal from STU.
Students enrolled who withdraw before the start of the course(s) will be entitled to a refund of 100% of the tuition paid.
Students enrolled who withdraw in the first and second week of the course will be entitled to a refund as per the table below:

Before the 1st week	100%
1st week	50%
2nd week	30%
After the 2ndweek	0%

Administrative and Resources fees are non-refundable unless prohibited by some provision of law. A student who withdraws from a course will have access to the electronic course materials at no additional cost if the student re-enrolls within 180 days of the withdrawal date.

Students enrolled in one or more courses after the second week of the course will be responsible for full payment and will not be entitled to any refund.
Students enrolled in one or more courses will be responsible for full payment to STU at registration in their national currency. Bank fees incurred are the student's responsibility and funding source, not STU's.
Reimbursements do not include bank fees incurred and are not the responsibility of STU.

6. STUDENT SERVICES

In pursuit of the educational objectives understood as the set of knowledge, skills, and competencies in terms of expected learning outcomes that characterize the cultural and professional profile of a course of study, the services offered to students at St. Thomas University are as follows:

6.1 COUNSELING AND GUIDANCE

St. Thomas University pays special attention to those who have to make such an important choice as a major. Wrong orientation is among the leading causes of dropouts among students in the stakeholders served by STU.

STU's educational offerings were created to propose pathways to young people entering the university that meet specific needs for acquiring skills adherent to their cultural interests, but above all, once they graduate, expendable in the labor market. In addition, the offerings innovatively interpret the demand for specialized skills, considering the latest technical and scientific developments, the socioeconomic system, and the people working there.

The St. Thomas University faculty are available to provide the necessary information for an informed choice: assistance, courtesy, and professionalism are the requirements of faculty, staff, and administration.

6.2 ADVISING

The STU provides information to resolve students' doubts and problems in university life, supporting them in organizational and educational difficulties. Provides assistance aimed at students throughout their university journey:

- Degree course orientation.
- Compilation of study plans.
- Assistance in studying.
- Bureaucratic assistance.
- Support in organizing a work plan.
- Dissertation advising.
- Creation of study groups.
- Creation of teaching workshops.

The STU not only provides informational and didactic support services for students but also brings to fruition that conscious accompaniment in progress that is part of the broader complex of services that invest the student from the time they manifest the desire to enroll at STU to when, after graduation, they begin to be productive in the world of work.

In an integrated and participatory vision, this new design perspective aims to increase academic achievement and student well-being.

The email address of the assigned faculty member will be sent to the student upon registration.

Advising records will be kept strictly confidential and unavailable to third parties to our privacy policy.

The goal of stimulating students throughout their education, and creating a social context for learning, is also achieved by organizing students into working groups run by experienced tutors trained in the technical-communication aspects of online education.

Students in the same group (virtual class) collaborate in developing joint projects, discuss teaching content in forums, and support each other in understanding content and developing papers.

Tutoring modes are mainly carried out in four forms:

1. Guidance/advice.
2. Monitoring of overall performance.
3. Monitoring of individual learning paths.
4. Student group coordination.

Tutoring is carried out mainly in individual and personalized modes via e-mail and the collective through virtual spaces of synchronous and asynchronous interactivity.

Communication features allow students to exchange information with each other and with faculty members, facilitating learning consolidation and knowledge dissemination and creating a widespread space for collaborative learning. Faculty members and students are provided with Forums, Interactive Classrooms, and 3D Virtual Classrooms.

6.3 HELP DESK

The service provides information and clarification by phone during office hours indicated in the contact information or by institutional e-mail.

6.4 STUDENT SECRETARIAT

The secretarial service provides information by phone or e-mail on enrollment, matriculation, credit recognition procedures, and various study paths. It issues documents such as attendance certificates, enrollment certificates, graduation certificates, etc.

6.5 SPECIAL-NEEDS STUDENTS

In promoting the inclusiveness of its educational offerings, STU relies on technology platforms that adhere to international accessibility standards and refer to the W3C (World Wide Web Consortium). Visually impaired students can

take the test on the computer using special text magnification tools. For all students who certify that they have learning disabilities, STU grants an increased period of attendance to take the end-of-course exams at no additional cost.

6.6 SERVICE QUALITY ASSESSMENT

STU ensures quality services and active student participation in university life.
Questionnaires directly verify satisfaction with the services provided to students covering organizational, educational, and administrative aspects. In addition, information on any complaints and nonconformities that have arisen during service delivery is evaluated.
The evaluation functions are carried out by the **Self-Evaluation Committee** and are provided for participation as members of two students.
Active participation of students in university life is ensured by participation in the governing bodies of STU, namely:

- the presence of two students in the **Academic Senate**
- the presence of two students in the **Academic Standards Committee**
- the **Student Government** has as its primary objective the promotion of the common welfare of students by sponsoring programs and services and acting as the student body's voice to the STU's governing bodies.

6.7 COURSE DELIVERY AND USE

Students and STU interaction through STU's e-learning platforms. Upon admission to the university, students are given a personal STU email address that serves as their primary communication link with the university and their program of studies. Advisement, courses, tutorials, mentoring with faculty, library access, and course resources such as video and project assignment sharing are delivered online. The platforms allow asynchronous activities (lecture study, self-assessment tests, participation in forums, etc.) and synchronous activities (video conferencing, live seminars, etc.).
Students enrolling in a Bachelor's or Master's degree program will be able to start within a maximum of five working days after receiving the acceptance of their application.

7. STUDENT SUPPORT PROGRAMS

St Thomas University (STU) will provide a number of services or support programs to students. STU will have the following available immediately to students:

- **Faculty mentoring** - This service is provided to all academic course students, in which the instructor approaches the educational learning experience as a learning mentor and facilitator of learning instead of the traditional model of one-way learner instruction. This includes providing referrals to additional services, internal or external, as identified.
- **Technical assistance** - These services are available to assist students with technical issues they might encounter while taking an online course. These services include both LMS and SIS assistance.
- **Library services** - This service is provided to all students and provides features such as course-specific library guides and the ability to ask a Librarian for assistance.

Policy concerning the effectiveness of provided programs:
St Thomas University (STU) embraces stakeholder feedback for continuous quality improvement within our educational services and University operations. To help achieve this goal, STU employs the following techniques.

1. Student course and instructor feedback surveys. At the end of each course, students are offered a survey through the online LMS to complete regarding course content and instruction.
2. Enrollment and advisement surveys. Students are offered a survey upon enrollment and after meeting with their advisor, at least once annually, regarding their experience with the process and customer service they received.
3. Additional support and technical assistance customer satisfaction survey. Upon completing a service request, individuals will be given a brief opportunity to complete a satisfaction survey through a web link.
4. Graduation survey. Upon graduation, the student will be survived through electronic means regarding their overall program opinions.
5. General Suggestion/Complaint comment card. STU will develop a feedback form on its website that allows stakeholders to submit general feedback and complaints or ask questions anytime. The comments can be anonymous or named, depending on the complaint type and stakeholder choice.

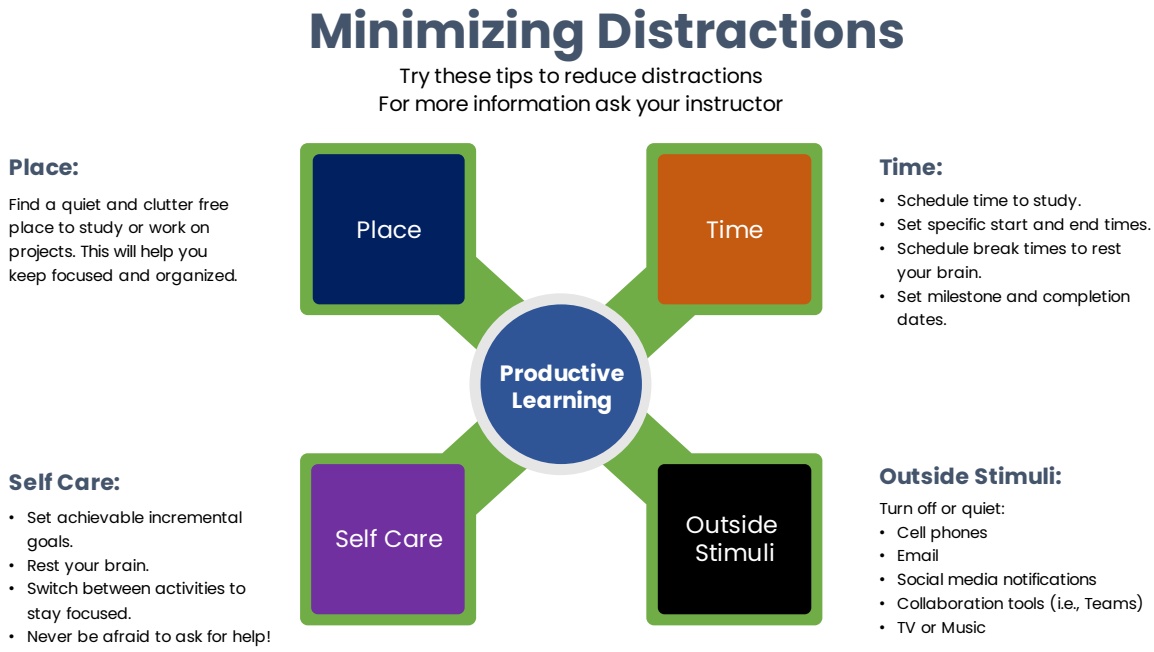
The designated support area compiles surveys; results are aggregated for each type or course and shared with senior administration monthly or quarterly. Faculty also receive an anonymized summary of course feedback survey after each course or for open entry/exit courses monthly or quarterly, depending on student volume (to ensure anonymity).

8. STUDENT INFORMATION SUPPORT

8.1 TECHNICAL SKILLS AND ABILITIES FOR SUCCESSFUL PARTICIPATION IN ONLINE EDUCATION

To be successful in online learning takes some basic technical skills. You must be familiar with using a web browser and an officed productivity suite, which would include a word processor, spreadsheet, and presentation software. See out technical equipment guidelines for recommendations related to software and hardware that will maximize your learning experience.

In addition, Online education requires self-motivation and an ability to minimize distractions to facilitate the learning process. The following guidelines can assist you in becoming a more productive learning.



Remember, online learning provides flexibility and the ability to learn form anywhere, but to get the most of that experiences, you must have a basic ability to access the internet, use a web browser, and productivity software to complete assignments.
The online platforms have instructional guides and tutorials that will enable you utilize the online learning modules, and many demos and videos exist online, in YouTube and other services, that will help you to maximize the use of the tools and productivity software needed to succeed online.

8.2 TECHNICAL REQUIREMENTS FOR ONLINE LEARNING AT ST. THOMAS UNIVERSITY

St. Thomas University has gone to great lengths to make its learning platforms accessible in many ways. You can access the platform and course modules from a desktop PC, laptop, tablet, or cell phone. St. Thomas University recommends using a desktop PC or laptop computer as your primary device to access courses and complete assignment. Either Window or Apple operating systems are supported and will provide the optimal user experience. In addition to internet access, a student will need access to a productivity software suite, such as Microsoft O365 or Google tools. This suite should include a word processor, spreadsheet, and presentation software. The following are recommended standards for successful online learning participation.

8.2.1 Desktop/Laptop

Operating Systems:	Windows 10 or higher (Windows is preferred)
	Apple OS 10 or higher (allowable, but not preferred)
Web Browser:	Google Chrome, Microsoft Edge
Productivity Suite:	Microsoft Office 365 or Google Workspace
Video Player:	Operating system default offering
Ram:	8 MB minimum, 16 MB preferred
Hard Drive:	40 GB minimum
Input/Output devices:	Keyboard, Mouse, Headphones, speakers, microphone, and printer(optional)

8.2.2 Tablets or Cell Phones

If you have a tablet or what to use a tablet it should be a recent operating system, no more than 2 years old and could be Android, Apple, or Windows. It must have a minimum 32 GB tablet, 64 GB or higher is preferred. It is not recommended that you use a tablet or cell phone to complete assignments. While they can be used to access information, the devices are not designed to be used when completing online learning programs and will reduce your overall learning experience.

8.2.3 Internet Connection

You must have an internet connection that can support either 4G or higher connectivity or 200MB if using a land-based internet service. Wireless and wired connections are both supported.

9. GENERAL STUDENT RIGHTS AND DUTIES

St. Thomas University, Global American Learning NPO, recognizes and respects students' rights which are the basis of the charter of services:

1. RIGHT to quality education with high-profile faculty, effective teaching methods, and advanced technological infrastructure;
2. RIGHT to be informed in a timely, complete, and up-to-date manner about everything related to the activities of the University and teaching in particular;
3. RIGHT to access and use learning materials on the 24-hour learning platform;
4. RIGHT to use administrative services during the hours established by St. Thomas University;
5. RIGHT to be assisted in their educational journey by teachers and tutors by the established procedures and schedules;
6. RIGHT to technical support provided by technical assistance;
7. RIGHT to submit complaints and suggestions on any inefficiencies;
8. RIGHT to confidentiality and protection of personal data by relevant laws.

As an institution of higher learning, St. Thomas University:

- GUARANTEES the right of all able and deserving students to achieve the highest level of education. The right to study is essential for all students. Students who are eligible for scholarships due to academic merit or financial need will be assisted in seeking financial assistance.
- ASSURES its students with the necessary conditions for developing their personality and civic knowledge. The right to participation, free expression, and cultural autonomy are recognized.
- GUARANTEES that students with disabilities will not be excluded from participation in any St. Thomas University program or activity as long as they meet the minimum course admission requirements.
- ASSURE its students with correct and timely information they may need to succeed in their academic endeavors.

Students must:

1. TAKE RESPONSIBILITY to conscientiously strive to achieve the academic goals they have set for themselves. Accordingly, each student must comply with the rules of the University and the courses in which they have enrolled;
2. TAKE RESPONSIBILITY for knowing the entrance requirements of their specific courses;
3. TAKE RESPONSIBILITY for knowing all STU policies or procedures. A student's lack of knowledge of an STU policy or methodology will not be accepted as grounds for a waiver or exemption from a policy;
4. RESPECT the organizational and safety STANDARDS outlined in STU's policies and procedures.

9.1 PRIVACY REGARDING STUDENTS' ACADEMIC AND EDUCATIONAL RECORDS

Family Educational Rights and Privacy Act, 20 USC § 1232g et seq. (**FERPA**), gives St. Thomas University (STU) students certain rights regarding their educational records. Educational records are directly related to a student and maintained by STU or a party acting for STU.

The term "***educational documentation***" does not include the following:

a. Records of a teaching, supervisory, administrative, and educational nature kept by STU officials for personal use only.
b. Documentation of student employees.
c. Alumni documentation.
d. Student health, psychiatric, and counseling records concerning students' treatment are maintained. Other health records laws may protect these records).

Students' rights regarding educational documents include the following:

1. The right to inspect and review the student's educational records within 45 days of the day STU receives an access request. The student must submit a written request to the Register identifying the documents the student wishes to inspect. The STU Register will make access arrangements and notify the student of the time and place the documents may be inspected.
2. The right to request amendment of student education records that the student believes are inaccurate, misleading, or violate the student's privacy rights under FERPA. A student who wishes to ask STU to amend a document must write to the STU official responsible for the record, clearly identifying the part of the document the student wishes to amend and specifying why it should be amended. If STU decides not to amend the document as requested, STU will inform the student in writing of the decision and their right to a hearing on the request for amendment. Further information about the hearing procedures will be provided to the student upon notification of the right to a hearing.
3. The right to provide written consent before STU discloses personally identifiable information in a student's education records, except where FERPA authorizes disclosure without consent.
4. FERPA allows disclosure of student education records to university officials with a legitimate educational interest in the records without requiring the student's written consent. STU discloses academic records without the student's prior written consent under this exception to FERPA requirements. A "school official" is a person employed by STU in

an administrative, supervisory, academic, research, or staff support position (including law enforcement, personnel, and health care personnel); a person or company with whom STU has contracted as its agent to provide a service, such as an attorney, auditor, or collection agent; a person who serves on the Board of Trustees; or a student who serves on an official committee, such as a disciplinary or grievance committee, or who assists another school official in performing their duties. A school official has a "legitimate educational interest" if they need to review an educational document to fulfill their professional responsibilities for STU.

5. FERPA allows disclosure of student education records without the student's prior written consent to schools where the student intends to enroll or is already registered. STU will disclose school records without written approval under this exception to FERPA requirements upon request. STU will make a reasonable attempt to inform each student of these disclosures.
6. The right to file a complaint with the U.S. Department of Education regarding alleged failures by STU to comply with FERPA requirements.

Students can contact FERPA at:

Family Educational Rights and Privacy Act
Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW Washington, DC 20202-5901

Directory Information

FERPA allows the disclosure of "directory information" without the student's written consent.
FERPA also allows students to request that their information not be disclosed. STU discloses "confidential information" without the specific prior consent of the student unless the student has requested that their confidential information not be disclosed by following the procedure described below.
For this purpose, directory information is defined as follows:

- Last and First Name (including maiden and married name, if applicable).
- Address, telephone number, and e-mail address.
- Date and place of birth.
- Main field of study.
- Enrollment status (Bachelor or Master).

A student who does not want *directory information* released without their consent MUST explicitly state this in the **enrollment document - Privacy section -** www.sthomasuniversity.org

9.2 ACADEMIC DISHONESTY

STU's community is expected to maintain high personal standards of Academic Honesty and to uphold It in its activities. At STU, ***Academic Dishonesty*** is considered an act by which a student seeks to reap benefit from another individual's intellectual or artistic work, uses materials unauthorized by STU, or fabricates information in any academic assignment. This includes (but is not limited to):

- Plagiarism: using someone else's work, ideas, or words without attribution. It may also involve misrepresenting the sources that were used. The plagiarism issue applies to any job, including exams, papers, other writings, and IT, artistic, photographic, or video-related works.
- Assisting or receiving assistance in any test or examination.
- Impeding or damaging the academic work of another student.
- Submitting material from books, internet sites, or articles without including bibliographic references or proper citations.
- Editing or revising works for others or allowing one's work to be edited or altered by others.
- Submitting the same work in more than one course without all the instructors' consent.
- Acting as an accomplice to other students in any of the above acts.
- Deliberate falsification of data or distortion of supporting documentation for coursework or other academic activity.
- Copyright violations.

Each faculty member will promptly report cases of suspected academic dishonesty to the Academic Standards Committee. By so doing, an instructor does not relinquish the right to assign the student a grade consistent with the grading policy and academic dishonesty statement in the University Catalog.

After consultation with the instructor, the Academic Standards Committee may recommend that the instructor handle the situation solely as a classroom issue, that a letter of concern is sent to the student, and that the case be officially referred to the office so that formal hearing procedures can be initiated.

Any student referred to the Academic Standards Committee for academic misconduct is entitled to notice of charges being made against them and a full hearing. Both the student and teacher must document their allegations and refutations in writing and include supporting material (i.e., copies of the student's work, copies of other materials used but not referenced in the student's work, etc.) relevant to the case. If suspension or dismissal is recommended, the

student is further entitled to an appeal procedure and will not be suspended or dismissed from the University while appeals are in process.

The Office of the Registrar has available a written statement of policy assuring fair consideration of students in cases of alleged academic dishonesty, specified hearing procedures, possible sanctions, and routes for appeal of decisions.

9.3 JUDGMENT OF ACADEMIC INFRACTIONS

Students who violate the standards of conduct will be subject to disciplinary action. Academic cases arising from alleged violations of the University Code of Conduct are the responsibility of the Academic Standards Committee, chaired by the Provost and composed of all Dean of Schools and two Student Government representatives. Students can express their personal feelings on the matter in writing to the Dean of the School up to three days before the Committee meeting.

Jurisdiction over academic charges is continuous, and depending on the severity of the infractions, the Academic Standards Committee may also provide for the immediate expulsion of the student from the University. Some violations of the University Code of Conduct are related to specific acts of academic dishonesty. Students who commit acts of academic dishonesty will receive at least one failing grade on the work in question or the entire course. This will be determined based on the evaluation of the teacher, the Academic Standards Committee, and the level of the violation.

If a student fails a course for academic dishonesty, they cannot subsequently withdraw from the course. The standard practice for repeating a course in these situations still applies. In the case of a repeated course, the failing grade "F" will be replaced by "NC," which indicates that the failing grade is no longer calculated in the student's grade point average.

The Academic Standards Committee will immediately expel the student if academic dishonesty is repeated.

9.4 SANCTIONS

Violations of STU policy may result in a verbal warning, suspension, ending, and expulsion.

9.5 DISCIPLINARY APPEALS

Students who believe a disciplinary action taken against them by the Academic Standards Committee is unfair may appeal in writing to the President. All appeals must be filed within 15 days of the disciplinary action being assigned to the student.
The decision of the President is final and unappealable.

10. GENERAL POLICY

10.1 UNIVERSITY CODE OF CONDUCT

The St. Thomas University Code of Conduct describes the standards of daily conduct, rights, and responsibilities of the academic community. With the acceptance of the contract of cooperation by faculty and non-teaching staff or the enrollment of students at STU, all regulations and codes of conduct of the University are accepted, and their contents are shared.

10.1.1 VIOLATIONS OF LAW ON AND OFF CAMPUS

St. Thomas University takes a firm stand concerning law violations on and off campus to protect our educational mission. Deliberate illegal activity that comes to the attention of STU members will not be tolerated. At STU, each individual is responsible for their behavior.

10.1.2 EQUAL OPPORTUNITY AND NONDISCRIMINATION POLICY

St. Thomas University does not discriminate based on race, color, religion, gender, ethnic or national origin, age, marital status, or sexual orientation in the administration of academic and admissions policies, scholarships and financial aid, school-administered activities, programs, or employment practices.

10.1.3 POLICY ON CIVIC AND PERSONAL VIOLATIONS

Concerning the rights of all university community members, St. Thomas University will administer disciplinary action in case of any of the following violations. This list includes, but is not limited to:

Violations related to harm to the community.

These actions include public safety violations and the people's peace on and off campus. These violations include:

a. The possession or use of dangerous objects.
b. The possession or use of a firearm.
c. The use of flammable materials or incendiary items.
d. Theft or duplication of keys belonging to the university complex.
e. Smoking on University property.
f. Disturbing the ordinary course of classes and all activities conducted by STU.
g. Damaging security equipment.
h. Throwing false alarms.
i. Stealing or borrowing items without the owner's permission.

Violations related to damaging the integrity of persons.

These violations include all actions that demonstrate a lack of individual responsibility and, in extreme cases, can be dangerous to personal safety:

a. Providing false information.
b. Committing acts of academic dishonesty.
c. Consuming or possessing alcoholic substances.
d. Consuming or possessing any drugs.

Violations involving the dignity, safety, and welfare of others.

These include actions involving harassment, humiliation, cheating, and harming other members of society:

a. Spying on or stalking other people.
b. Photographing or filming other people without permission.
c. Using violent behavior. This violation also includes verbal violence and forcibly restraining another person.
d. Applying psychological pressure, frightening or isolating individuals or groups of people.

10.1.4 SEXUAL HARASSMENT POLICY

Definition of Sexual Harassment

Sexual harassment implies unprofessional behavior, verbal or non-verbal, explicit or implicit, which consists of sexual advances, sexual, spoken language, or requests for sexual favors. Sexual harassment occurs in cases in which the behavior is unwelcome. All members of STU's community are expected to use their time solely for educational and administrative purposes. If an action, whether sexually inspired or not, interferes with these activities at the University in an offensive or perpetually disturbing manner, STU will intervene in the situation promptly.

The following are examples of sexual harassment:

- A discussion or request for information (either directly or indirectly) concerning an individual's sexual orientation and experiences.
- Unwelcome touching, whistling, leering, insulting, or suggestive comments of a sexual nature.
- Any unwelcome sexual advances.
- The possession/diffusion of sexual material (whether pornographic or material with sexual overtones) on university property.
- Comments or jokes of a sexual nature.

- Using sexual acts as a means of educational or institutional advancement or employment.

It is important to note that as an international University, STU congregates many ethnicities and cultures within its community. Inevitably, misconceptions regarding cultural differences may arise, though STU's policies must be respected in every case and are decisive for determining misconduct. STU understands cultural differences and will consider these factors while deliberating the case. However, acts such as sexual harassment, regardless of the cultural background of the University Community Member, will not be tolerated in any way. Sexual harassment is not permitted in any form at STU. This policy affects the entire institution and includes every member of its community, including students, faculty, staff, and administrators. In cases involving sexual harassment, STU will maintain the utmost confidentiality and ensure justice in every case. If found guilty, the community member risks, at a minimum, expulsion or the termination of their contract.

11. REVISION OF THE CATALOG

This Catalog will be reviewed and updated annually. Changes may be proposed by the University President, the Academic Senate, or the competent office. The President approves the revisions proposed. The Board of Trustees will finally act upon all revisions proposals.

12. ADMINISTRATIVE AND FACULTY LIST

Prof. Allen C. Meadors, Ph.D., LFACHE
Acting President
A.A. Computer Sciences, Saddleback College, Mission, Viejo, CA
B.B.A. Business Administration, University of Central Arkansas, Conway, AR
M.B.A. Master in Business Administration, University of Northern Colorado, Greely, CO
M.A. Psychology and Human Relations, Webster University, St. Louise, MO
M.H.A. Health Services Management. Webster University, St. Louise, MO
M.P.A. Public Administration, University of Kansas, Lawrence, KS
Ph.D. Administration and Education, Southern Illinois University, Carbondale, IL
Cert. Certificate Health Systems Management, Sloan School of Management, Massachusetts Institute of Technology, Cambridge, MA
Cert. Certificate of Health Services Administration Development Program, Trinity University Graduate School, S. Antonio TX

Dr. Roger Glenn Brown, MPS, Ph.D.
Acting Provost
B.S. Education, University of Tennessee
M.A. Political Science, University of Tennessee
Ph.D. Political Science, Johns Hopkins University

Dr. Anna Scapin
Chief Financial Officer
Master's degree in Economics and Business Administration
Registration with the Register of Chartered Accountants and Accounting Experts
Registration with the Register of Statutory Auditors at the Ministry of Economy and Finance

Dr. Kevin T. Crouse, DBA
CISSP, CISM, CIPP/E, CIPM
General Manager IT and Media Services
D.B.A. Doctorate in Business Administration with a concentration in Computer and Information Security, Northcentral University
M.P.A. Master's in Public Administration, Southern Illinois University-Edwardsville
B.A. Bachelor of Arts in Sociology, Eastern Illinois University

Dr. Timothy L. Taylor, MPH, Ph.D.
Acting Dean, School of General Studies and Digital Education
B.A. English & Political Science, University of Washington
M.P.H. Health Administration & Policy, University of Oklahoma Health Sciences Center, College of Public Health.
Ph.D. Doctor of Philosophy Health Administration & Policy, University of Oklahoma Health Sciences Center, College of Public Health.

Dr. Alexander N. Chen, MS Rural Sociology, MAG, Ph.D.
Acting Dean, School of Innovation and Intelligence
B.S. Agricultural Extension, National Taiwan University
M.S. Rural Sociology, Pennsylvania State University
M.Ag. Agricultural Economics, Pennsylvania State University
Ph.D. Rural Sociology, Pennsylvania State University

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Acting Dean, School of International Business
B.S. Physical Education Theory, Exercise Physiology, State University of New York, College at Cortland
M.A. Exercise & Sports Science, Exercise Physiology, University of North Carolina - Chapel Hill
M.B.A. University of North Carolina-Pembroke
Ph.D. Health Studies, Community Health, Texas Woman's University
Cert. Certificate in Family Financial Planning, North Carolina Agricultural and Technical State University

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M.S.O.L. Master of Organizational Leadership, Jacksonville University, Jacksonville, Florida (AACSB accredited)
M.L.I.S. Master of Library and Information Science, San Jose State University, San Jose California (ALA accredited)

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M.S. Information Assurance, Norwich University

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M.S. Higher Education, Southern Illinois University
Ed.D. Postsecondary Education, Teacher's College, University of Nebraska-Lincoln, 1991

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Faculty Author, School of International Business
A.D. Nursing, Wake Technical Community College
B.S. Nursing, East Carolina University
M.S. Nursing, University of North Carolina, Greensboro
M.B.A. Health Services Administration, Strayer University

Daniel J. Parisian, Ph.D.
Faculty Author, School of International Business
B.A. Economics, Hartwick College
B.A. Mathematics, Hartwick College
M.A. Economics, State University of New York at Binghamton
Ph.D. Economics, State University of New York at Binghamton

Dr. Louis B. Tharp, Ph.D.
Faculty Author, School of General Studies and Digital Education
B.A. Philosophy magna cum laude - Yale University
M.A. Psychology - Claremont Graduate University
Ph.D. Psychology - Claremont Graduate University
Other Post-graduate Studies
Fuller Theological Seminary - Theology - one year
Educational Psychology - 30 units - California State University at Los Angeles
Seminars on writing - University of California at Irvine
Television production courses - Saddleback College

13. COURSE CODE AND DESCRIPTIONS

13.1 CREDIT HOURS AND COURSEWORK

- **Courses numbered 100 to 499 are 3 Credit hours developed over about five weeks of work.**
- **Courses numbered 500 to 900 are 3 Credit hours developed over about six weeks of work.**
- **Exceptions (e.g., Senior Project or Capstone Project) are indicated in the individual description.**
- **There are no prerequisites listed - courses are sequenced to allow previous knowledge and competencies to the next course level of the curriculum.**

13.2 SCHOOL OF GENERAL STUDIES AND DIGITAL EDUCATION

13.2.1 PROFICIENCY

ENG/50 - BASIC ENGLISH
This course has been specifically designed for students who already have basic language knowledge, but want to improve and enhance their English language skills.
Credits: None

ENG/90 - ENGLISH COMPOSITION I
The course is designed to offer entry-level skills in rhetoric and composition studies. The goal is to identify, develop, and mobilize the elementary resources needed to produce adequate college-level papers and presentations.
Credits: None

ENG/95 - ENGLISH COMPOSITION II
The course is designed to offer intermediate-level skills in rhetoric and composition studies. Banking on the resources mobilized by English Composition I or assessed through placement, English Composition II focuses on refining the skills necessary to produce above-average papers and presentations.
Prerequisite: Permission of the Instructor
Credits: None

MAT/50 - PRE-ALGEBRA
This course is designed to help prepare students to enter the MAT/101 Algebra Course. It will cover fundamental concepts of mathematics and an introduction to Algebra. Students will be exposed to ideas of Integers, Rational and Real numbers, basic operations, exponents, percentages, and measurements. Basic Algebra concepts include simplifying expressions, solutions to linear equations, and introduction to Polynomials.
Credits: None

MAT/70 - PREPARATION FOR GMAT
This course is meant to prepare students to pass the GMAT examination. The GMAT is a standardized assessment administered in English. It allows for admission to business schools worldwide. Business Schools use this test score to predict a potential student's future academic performance in an MBA program or other graduate management programs. The GMAT examination assesses MBA student applicants on their basic verbal, mathematical and analytical writing skills. Students are strongly encouraged to prepare for and to take this test because it allows them to enroll in business and management courses at almost every Business School throughout the world. And, because it provides a highly reputable and objective ranking of their quantitative and analytical capabilities.
Credits: None

13.2.2 ANTHROPOLOGY

ANT/100 - INTRO TO SOCIAL AND CULTURAL ANTHROPOLOGY
This course examines significant areas of interest and contributions made by social and cultural anthropologists in past years. The everyday life, traditions, religious habits, social behaviors and cultural idiosyncrasies of different societies that vary in time and space, are described and analyzed to demonstrate how institutions my vary as a result of their cultural and geographic settings.

ANT/200 - ANTHROPOLOGY OF BUSINESS
This course examines the business world and organizations from an anthropological viewpoint. Using scientific and analytic tools developed by anthropologists, students will examine business-related factors, such as productivity, efficiency, and the interrelationships between business strategy and culture.

ANT/250 - VISUAL ANTHROPOLOGY
This course covers multimodal anthropology and describes the latest turn in this subfield of social anthropology. The course addresses issues related to emerging technologies, such as immersive virtual reality, augmented reality, mobile apps, social networks, and games, photography, art, and how they are reshaping anthropological research, practice, and teaching.

ANT/300 - URBAN ANTHROPOLOGY
The focus of this course is on the lives and difficulties of Third World migrants who are moving from their countries to western countries. Urbanization and family life, prejudice and discrimination, ethnicity, class and the culture of poverty are deeply analyzed. Students will learn to use some of the most up-to-date, data collection and analytic tools developed and utilized by contemporary urban anthropologist.

13.2.3 ENGLISH

STU is a U.S. international university specializing in written and spoken English proficiency. Early in their education at the University, all students must take a sequence of courses in English composition and literature to develop the ability to think logically, communicate accurately and clearly, and appreciate the beauty and power of the English language as reflected in its rich literary heritage. These skills will be used and reinforced throughout a student's college career and a career of lifelong learning.

ENG/100 - BASIC ACADEMIC WRITING
This course is designed to improve students' written study skills, focusing on organization and information collection. Students will concentrate on developing note-taking and exam-taking skills and academic writing skills. Special attention will be given to sentence structure, paragraph development, and essay structure.

ENG/110 - ENGLISH COMPOSITION III
The course is designed to offer advanced instruction in rhetoric and composition studies. Its goal is to develop the more subtle skills necessary to convey critical thinking and fine-tuned analysis across various academic formats, from the simple position paragraph to the more articulate research paper.

ENG/200 - ACADEMIC WRITING (W)
The course aims to introduce students to writing at an academic level. The course will analyze techniques for planning and organizing, reading and researching, and using sources, style, and editing.

ENG/210 - ENGLISH FOR BUSINESS STUDIES (W)
This course teaches writing skills appropriate for abstract economic offers the writing skills to approach abstract economic theory and concrete business practice. Students will acquaint themselves with the most basic ways of conveying written analysis through exercises that report technical information. More practical-oriented skills will be developed through training exercises on the everyday tasks required to operate in the modern corporate working environment.

ENG/250 - ACADEMIC READING AND VOCABULARY
This course will assist students and enhance their ability to read the written word and to improve their understanding of written English. Particular importance will be placed on note-taking techniques, vocabulary expansion, and critical analysis of academic texts.

ENG/310 - ACADEMIC RESEARCH AND NOTE-TAKING SKILLS
The purpose of this course is to help students develop critical analysis and note-taking skills, including paraphrasing, summarizing, and other techniques. The course considers the evaluation of information, including resources for research and different kinds of academic essays, and includes plans for sharing information gathered in both written and oral form. Discussion and presentation skills will also be covered.

ENG/320 - DIGITAL LINGUISTIC AND TECHNICAL WRITING
The course aims to broaden students' knowledge of the grammatical, lexical, and textual characteristics of written academic English in a scientific context and to develop students' fluency in speaking English. The course thus aims to provide basic knowledge about the features of the language, how it works, and the mechanisms involved in its processing, paying particular attention both to the possible applications of this knowledge in digital educational contexts and to how communication in digital contexts contributes to changes in the functioning and use of language. This knowledge should make students more aware of the effects of oral and written language choices. Technology-mediated communication, through consideration of the context and type of situation, can produce clear and compelling texts and help students use and interpret language in the most appropriate and effective ways. An active approach is used: students produce written texts and correct them individually and in groups.

ENG/390 - PUBLIC SPEAKING
This course is an introduction to speech communication that emphasizes practical public speaking skills, such as techniques for reducing speaker anxiety and the use of visual aids to enhance speaker presentations. The goal is to prepare students for success in typical public speaking situations and provide them with the basic principles of organization and research needed to deliver effective speeches.

13.2.4 LITERATURE

LIT/100 - INTRODUCTION TO AMERICAN CULTURE
Learners in this course explore what people perceive as "American culture." The purpose is to show students the cultural and historical processes from which these cultural values have emerged and how they have been transformed and are expressed in contemporary times through different themes such as family, ethnic and cultural diversity, consumerism, entertainment, and technology, among others. An essential companion for American culture learners is viewing American popular culture through a variety of anthropological lenses such as cartoons, cinema, music, fashion and trends.
This course is NOT intended to be taken by American students.

LIT/110 - CONTEMPORARY AMERICAN CULTURE (W)
The course approaches twentieth-century America focusing on a wide range of historical, sociological, and cultural issues from a multidisciplinary perspective. It explores key themes in contemporary American society, such as race, identity, gender, social class, and religion, including their representation in literature and the other arts.
This course is NOT intended to be taken by American students.

LIT/120 - INTRODUCTION TO AMERICAN LITERATURE
An overview of the most significant works of American literature. This course focuses on the most important literary movements and writers and includes the literary works and genres of ethnic minorities (African Americans, Native Americans, etc.).
This course is NOT intended to be taken by American students.

LIT/250 - BRITISH LITERATURE I
This course discusses the main literary movements, authors, works, and genres from the Anglo-Saxon period to the 18th century, such as "Beowulf," "Sir Gawain and the Green Knight," Chaucer, Spenser, Sidney, Shakespeare, Donne, Milton, Dryden, Pope, Swift, Fielding, Johnson, and Boswell.

LIT/260 - BRITISH LITERATURE II
This is a survey course of the most influential British literary movements, figures, and genres from the Romantic Age to the present. Writers studied may include Austen, the Romantics, Tennyson, Browning, Arnold, Dickens, the Brontes, George Eliot, Hardy, Yeats, Joyce, D.H. Lawrence, Forster, Woolf, T. S. Eliot, Auden, and Beckett.

LIT/350 - 19th CENTURY U.S. LITERATURE
This course provides a critical introduction to American literature of the nineteenth century. It addresses the characteristic preoccupations and concerns of American writing, the relation of writing and culture to the sustenance of nation and community, the morality of a culture, the culture of character, the development of new literary perspectives, styles, and techniques, the formation of distinctive literary traditions, the historicity of literary movements, and the relation of criticism to literary canons and culture through the nineteenth century.

LIT/360 - 20th CENTURY U.S. LITERATURE
The focus of this course is 20th century U.S. literature. of the 20th century. This course traces the development of realism, naturalism, and modernism in their literary, social, and historical contexts. Particular attention is given to shifting notions of nationhood, war, race, ethnicity, gender, sexuality, culture, and modernity.

13.2.5 HISTORY

HIS/350 - RUSSIA: REVOLUTION, STATE, AND EMPIRE (G)
This course outlines the struggle that Russia and the people of other former Soviet republics are engaged in to interpret and understand their recent history: the visions for which it was founded, the victories and losses that altered these visions, and its final collapse. In 1991, the ex-Soviet Union was the latest in a series of revolutions and upheavals during the 20th century. Emphasis will be placed on: the shift from absolute monarchy to dictatorship under Stalin, the changes made from Khrushchev to Gorbachev, and the economic changes that made the Soviet economy second in the world.

HIS/360 - STUDIES IN U.S. HISTORY: THE ENVIRONMENTAL HISTORY OF URBAN AMERICA
The focus of this course is American cities and their diversity. Cities with strikingly diverse geographic and ecological settings whose settlement and development occurred at different rates and at different times. Various themes analyzed include the effect of environmental transformation on the world, the tension between growth and ecological sustainability, and cultural construction and contingency.

HIS/600 - DIGITAL BIBLIOGRAPHY AND LIBRARIANSHIP
The course aims to present students with knowledge of the main tools, methods, and problems of librarianship and bibliography that are increasingly linked to the digital world. The course will consider move by considering two points of view: the librarian and the user, both of whom operate in the interactive digital documentary environment.

13.2.6 LAW

LAW/100 - INTERNATIONAL LAW
The course will introduce the students to the fundamental concepts and topics of public international law and the global legal system. During the course, the main issues in this field, such as the sources and subjects of international law, the jurisdiction of states, international law and the use of force, the relationship between international law and the internal law of conditions, will be examined.

LAW/150 - LAW IN DIGITAL CONTEXTS
The course addresses the convergence of Law and Society and Artificial Intelligence and Law. It also addresses the changes produced in the digital age by the emergence of the Web of Data, Big Data, and the Internet of Things.

LAW/200 - BUSINESS LAW AND ETHICS
This course addresses the fundamental principles of the laws that regulate business activities. It gives the student a solid foundation in law, business ethics, sustainability, and social responsibility. It addresses introductory topics such as contracts, negotiable instruments, debtor-creditor relationships, business organizations, real property, and estates, essential concepts of Common Law, Statutory Law, Administrative Law, Constitutional Law, Crime, Dispute resolution, and International Law. Topics also cover ethics and business, sustainability, law and ethics, ethical principles in business, the marketplace, the environment, consumer protection, marketing, and job discrimination. It will involve extensive use of case studies.

LAW/320 - ETHICAL AND LEGAL ASPECTS OF ARTIFICIAL INTELLIGENCE-BASED TECHNOLOGIES
The course is designed to equip students with the legal knowledge and technical skills to navigate new technologies' complex ethical, legal, and social implications. Students will address the regulatory challenges of our times: the exponential growth of artificial intelligence, big data, and related disruptive technologies. As well as blockchain and 'smart contracts' and their effect on markets, professional practice, and governance.

LAW/350 - PUBLIC LAW AND LABOR PROTECTION IN THE DIGITAL AGE
The course addresses the problems governments and social partners face in monitoring the development of employment patterns driven by various technologies in different sectors and countries. Clarifying the legal framework and support for workers by governments and social partners needs to be analyzed from a transnational perspective. This ensures that differences between legal and institutional systems are not exploited to diminish employment quality by using digitized workflows to outsource work to regimes with less employment protection.

LAW/600 - INFORMATION AND MEDIA LAW
The Information and Media Law course aims to give an in-depth analysis of the challenges faced in the ever-growing area of media law. Students of the course will also be introduced to legal and ethical issues about the media, along with contemporary legal problems linked to media law.

LAW/650 - CRIMINAL LAW OF INFORMATION TECHNOLOGY
The course addresses the complex implications between the criminal justice system and new technologies. The information society characterized by the explosion of the Internet and new technological products, has long entailed momentous changes in every area of human life, implying not only multiple opportunities for "positive" development but also modes and types of behavior of criminal significance that need a specific supranational normative response.

13.2.7 PEDAGOGY

PED/100 - SOCIAL HISTORY OF EDUCATION
The purpose of this course is to develop students' pedagogical competence in the digital realm, with a specific emphasis on historical and evolutionary aspects of critical topics. These topics include - The history and evolution of technology and its implications in education. The course considers the educational, epistemological, and ethical dimensions of technology and how technological advancements have influenced teaching and learning processes over time. The history of key concepts related to education such as instruction, training and education itself. The course describes how these concepts have changed over time, and it examines their pragmatic implications in educational settings. The digital world and its impact on education. The course explores contemporary youth anthropology by comparing it with the recent past and analyzing the changing forms of socialization and identity processes influenced by digital technologies. The course also examines new models of thinking and new learning patterns that have emerged in the digital age.

PED/150 - PEDAGOGY AND CURRENT EMERGENCIES
This course deals with several topics related to - Academic performance, including various factors that affect performance such as learning styles, motivation, and assessment methods. Along with, pedagogical strategies and interventions designed to enhance performance. Behavioral disorders, their different types, their causes, and their impact on learning and social interactions. As well as, strategies for identifying and supporting students with behavioral disorders. Cyberbullying, a form of online harassment and aggression. The course explores its development, its impact on individuals and communities, and its ethical implications. Preventive measures, intervention strategies and the role

of digital technologies in addressing cyberbullying will also be examined. In addition, the course includes an academic proposal with three main components - Metacognitive Analysis which involves understanding and regulating one's own cognitive abilities. Modifiability of Mental Fields which refers to the potential for individuals to modify and improve their cognitive abilities. And, Trans-and Post-Disciplinary Educational Pathways that include innovative educational approaches that transcend disciplinary boundaries. The course concludes with the presentation and discussion of the process and research reports on the topics covered.

PED/200 - DIDACTICS AND GENERAL PEDAGOGY

The course introduces the theoretical-methodological foundations of pedagogy and general education, particularly concerning children in the 2-7 age group. Its purpose is to help students develop knowledge, understanding, experience and the ability to reflect on educational contexts and relationships. These include, for example, (a) the complexity and quality of educational contexts and relationships; (b) educational projects and processes; (c) the specificity and importance of the educational profession for the individual development of each child, and (d) the role and value of the profession in promoting the holistic development of young children and contributing to the well-being of society.

PED/250 - GENERAL TEACHING AND SPECIAL EDUCATION

The purpose of this course is to introduce students to the knowledge and skills needed to teach special populations such as students with disabilities and students who have demonstrated high achievement. It is a foundational course designed to provide students with an understanding of pedagogical principles and strategies for effective teaching in inclusive educational settings. The course will examine pedagogical approaches to special education, the design of inclusive digital learning environments, the importance of individualized assessment and the development of individual learning plans (IEPs) for students with special needs, stakeholder collaboration, communication, and ethical and legal considerations and issues related to special education and digital teaching. The course emphasizes the integration of digital technologies to enhance teaching and learning experiences.

PED/300 - INNOVATIVE TEACHING METHODOLOGIES

This course emphasizes teaching and aims to illustrate the primary teaching methodologies used in formal and nonformal education, and a variety of school and training contexts for various age groups. Beginning with the learning theories of the last century (behaviorism, cognitivism, and constructivism) and their repercussions on teaching, the most well-known teaching strategies used in educational contexts will be addressed, with particular reference to those considered innovative: Lecture, Cooperative Learning, Problem-Based Learning, Project-Based Learning, Inquiry-Based Learning, Flipped Classroom, Team-Based Learning, Role-Playing, Simulation, Laboratory Teaching, Professional Learning, Outdoor Training, Debate, Self-Directed Learning, Coaching, Mentoring, and Counselling. The purpose of emphasizing teaching in this course is to put students in an active, real world like position to let them experience these methods themselves, in order to foster their learning, through experience.

PED/350 - DIGITAL CITIZENSHIP: EDUCATIONAL AND TRAINING ELEMENTS

The course covers the building blocks of "digital citizenship." It includes, constructing a digital citizenship curriculum for teachers, teaching methodologies for peace education and global citizenship, the dimension of transversality, and the assessment of digital and civic competencies.

PED/360 - DIGITAL INCLUSION PROCESSES AND OPEN EDUCATIONAL RESOURCES

This course covers open educational resources and its relationship to digital educational inclusion. Throughout the world, Open Educational Resources has had an impact on almost all educational systems. The idea is that by combining the sharing potential of the network with an available licensing system, anyone can access quality educational resources, and this can lead to more democratic and inclusive education systems.

PED/400 - RESEARCH AND EVALUATION IN DIGITAL EDUCATIONAL CONTEXTS

The course aims to provide the basic knowledge and skills, and the main lines of inquiry, related to research and evaluation in educational contexts. National and international cases studies and published research that cover course topics will be analyzed during lectures. At the end of the course, and based on the construction of different research designs, students will be able (1) to formulate research hypotheses and build a theoretical frame of reference, (2) to identify and structure the stages for initiating empirical research, (3) to distinguish between quantitative and qualitative research, and (4) to master the most important survey techniques and tools. In addition, through exercises and small group activities, students will also be able to "experiment" with digital tools and resources to conduct research and evaluation in education.

PED/495 - SENIOR PROJECT

The senior project may take many forms. It may be a group project to pursue an identifiable problem with a faculty sponsor or may involve choosing a topic for critical review.

PED/550 - HISTORY OF EDUCATION AND COMMUNICATION PROCESSES

This course will take students on a journey over the chronological stages through which different modes of communication have emerged, developed and evolved. From Gutenberg to the advent and emergence of multimedia

communication in these present times of globalization. Course content and activities will provide students with the opportunity to reflect on current communication dynamics, and their general impact on educational and formative processes. With this perspective and the application of academic history methods, the imaginative phenomena of narrative communication, from literature to everyday life, will be investigated. Special attention will be given to cartoons, and the relationship between narrative, educational models and cultural transmission.

PED/560 - PEDAGOGY AND LEARNING

This course will examine pedagogic theories and methodological approaches to analyze the complexities of educational phenomena, with special attention on the multicultural dimensions of our contemporary world. Topical pedagogical issues related to education, intercultural communication, the cultural nature of developmental, educational, and learning processes in childhood and adolescence, relationships between peers and between adults and children/minors in educational contexts and schools, and the relationship with migrant families and children in different developmental contexts will be explored. Through the application of critical analysis on relevant education research, pedagogical issues and problems will be debated.

PED/570 - INNOVATIVE TOOLS FOR TEACHING

Digital competence is increasingly central to innovative and informed teaching. The need to develop a broad range of digital competencies for teaching has emerged as an important priority. This course analyzes the valorization of error in digital teaching, from paper books to eBooks and instruction by storytelling and digital storytelling. It will include teaching with APPs, G Suite for Education, Kahoot, Google Drive modules, EAS, Flipped Classroom, Google Classroom and Open Board.

PED/580 - INFORMATION TECHNOLOGY METHODOLOGIES FOR E-LEARNING

The course is structured as an overview of important, digital age teaching activities. These include, a theoretical component on instructional design models with particular reference to the principles of multimedia learning and the design of environments and resources for online education, a seminar on media education processes in formal education systems, and an online workshop on the design and implementation of teaching modules on the Moodle e-learning platform.

PED/590 - PROMOTION AND MONITORING OF DIGITAL CULTURE AND RESEARCH

The study and the reduction of digital educational poverty is concerned with the deprivation of opportunities, not only to learn, but also to experiment, to freely flourish, to develop and enhance skills, talents and aspirations through the responsible, ethical and creative use of digital tools. The course reinforces students' knowledge and their functional skills to design and implement educational pathways to acquire and test basic digital skills. The theoretical frame of reference of the course is consistent with the latest Digital Competencies frameworks, and the method utilized is based on SLE techniques - Situated Learning Episodes. During the course, students will experience a variety of Digital Competencies. (Wikipedia entry, online petition, podcast, digital storytelling). The class will also function as a Newsroom with roles filled by students divided into interchangeable groups or operational teams, allowing students to activate and acquire different skills.

PED/600 - DESIGN AND EVALUATION OF ONLINE PATHWAYS

This purpose of this course is to explore theories of design and evaluation in online education so that students may develop skills in the use of methods, tools, and procedures to create and evaluate educational processes and interventions.

PED/610 - DIGITAL COMMUNICATION

The course's main content studies the relationship between media, culture, and society through analysis and discussion. Students will learn that digital media form a complex system of interconnected forces within which technological innovations, economic dynamics, aesthetic canons, and political tensions generate an unresolved dialectic. Students will acquire valuable tools for understanding the communication processes and social behaviors encouraged by new technologies.

Key concepts within media studies discussed during the course include medium, technology, gaze, utopia and dystopia, representation and simulation, information and disinformation, propaganda, control, and surveillance.

Principal subjects of the analysis include the production, distribution and consumption processes of content and knowledge, ideas and images in the digital age, technology and ecology, nature and culture, sociality and performativity, networks and communities and the relationship between capitalism and digital culture.

PED/650 - EDUCATION IN THE KNOWLEDGE SOCIETY

This course aims to explore the concept of education in today's multicultural and globalized society, in order to highlight how education has been transformed by the revolution in digital technologies. And how this revolution has created a new pedagogical lexicon for the design and coordination of educational and training interventions across different professions.

The first part will investigate the relationship between education and the laxity of communication, and to rethink education in a complex, plural, interconnected, and technological world. In the second part, students will experiment

with how to transfer and construct knowledge to set up cooperative and collaborative online learning environments through cooperative and to help train critical thinking.

PED/660 - E-LEARNING AND DIGITAL EDUCATION RESEARCH METHODS
The course aims to illustrate the principal methods and tools designed to conduct media-educational research. It will provide students with theoretical and methodological tools for reading and designing research in different educational contexts, relevant to media and the digital realm. concerning media.
Specifically, the following topics will be covered.
(1) Introduction to the principal theories and methods of academic research.
(2) Research strategies most applicable to digital education.
(3) Tools for analysis in educational contexts, with emphasis on the comparison between qualitative and quantitative approaches and their relationship with media.
(4) Development of media/digital skills for educators, teachers and trainers.
(5) Construction of research tools and,
(6) the process of conducting research through the use of bibliographies, online materials, research tools, data collection and analysis and interpretation of results.

PED/665 - READING AND CONFERENCE - INDEPENDENT STUDY
Directed readings in Digital Education is an advanced level course for graduate students. With the approval and under the guidance and direct supervision of a faculty member, directed readings or independent study provides students with an opportunity to engage in focused, individualized study.

PED/670 - RESEARCH - INDEPENDENT STUDY
Independent study and research is an advanced level course for graduate students. With the approval and under the guidance and direct supervision of a faculty member, independent study and research provides students with an opportunity to conduct a research project that results in a thesis or major paper.

PED/690 - CAPSTONE PROJECT
With the approval and under the guidance and direct supervision of a faculty member, students will prepare a thesis or a major project report.
Prerequisite: *30 Credits*

13.2.8 PHILOSOPHY

PHI/100 - INTRODUCTION TO PHILOSOPHY
The course is intended to introduce students to philosophical questions to make them aware of how some of history's greatest philosophers have approached those questions and what they have had to say about them. Students will also articulate philosophical concerns of their own and, most importantly, learn how to address them.
Among the areas of philosophy that will be explored in this course are ethics, political philosophy, metaphysics, and theory of knowledge.

PHI/300 - MODERN SOCIAL PHILOSOPHY
This course will examine principal modes of 20th century moral philosophy and its possible applications. Attention will be paid to writings about, but not limited to, political ethics, bioethics, violence and war, family, and global food supply.

13.2.9 POLITICAL SCIENCE

POL/100 - INTRODUCTION TO INTERNATIONAL RELATIONS
This course will help the students to develop an in-depth analysis of contemporary international relations. The course examines the main concepts in international relations such as, for example, the balance of power. Issues are connected with the emergence of a new world order and new international political actors.

POL/150 - WOMEN AND POLITICS (G)
This course analyses women's roles and political integration from different viewpoints (social, empirical, cultural, and historical). The impact of feminist theories on the quality of political discourse and action is also examined.

POL/200 - GLOBAL POVERTY AND INTERNATIONAL RESPONSIBILITY (G)
This course examines the actual extent and distribution of global poverty. Students will analyze the social, political, and cultural factors that exacerbate this problem in developing and developed countries, the different aspects and consequences of globalization, and the action of NGOs and other kinds of international organizations in this field.

POL/230 - INTRODUCTION TO PUBLIC RELATIONS
This course introduces students to fundamental theories and practices of public relations, the legal and ethical framework of PR for sustainability, the process and application, the relationship between PR, marketing, and advertising, new trends in PR, best practices, how the web has changed the rules of marketing and PR, action plans for harnessing the power of new regulations in PR, online PR, and social networks.

POL/250 - POLITICAL COMMUNICATION
This course examines the interconnections between mass communication and political science. It discusses the European and the U.S. political system and the main issues in political communication strategies. Moreover, it analyses case studies of means and tools adopted during selected electoral campaigns.

POL/300 - GOVERNMENTS AND POLITICS WORLDWIDE (G)
During this course, the students will analyze parliaments, political parties, elections, legislation, and the formation of governments in different political systems worldwide.
The course will examine each political system's social, economic, and political priorities and their social, cultural, and historical relevance.

13.2.10 PSYCHOLOGY

PSY/150 - GENERAL PSYCHOLOGY
The course aims to introduce and analyze basic knowledge about cognitive processes. Topics such as the mind-brain relationship, perception, attention, decision-making processes, and the methods psychologists use to study the mind, and human behavior will be addressed.

PSY/250 - DEVELOPMENT AND EDUCATIONAL PSYCHOLOGY
The course aims to provide knowledge about the development of the individual, taking into account the complexity of different growth contexts: from traditional ones, such as school and family, to virtual communities in which new modes of communication and learning are emerging, both functional and dysfunctional. Transversal skills such as understanding phenomena, problem-solving, analytical and comparative skills, and metacognitive skills will also be provided.

PSY/300 - SOCIAL PSYCHOLOGY
This course aims to provide the theoretical tools for analyzing the main topics of social psychology and group psychology. It also aims to understand cultural processes through the study and management of psycho-social dynamics. Primary themes of the discipline, such as social perception, social influence, group functioning, inter-group relations, and the dynamics underlying prejudice, will be explored. Frequent examples will accompany the theoretical presentation of the various topics. In this way, the course will provide a solid understanding of theoretical content and connect it to relevant educational and training issues. These topics will be helpful in various educational, training, and leisure contexts, including, for example, in addition to educational institutions, child and adolescent centers, cultural services, intercultural centers, and conflict mediation services. This will help students attain appropriate and necessary skills to design, implement, manage and evaluate individual and collective educational interventions. Active and critical participation by students will be encouraged. Participation in one or more optional seminars will also be offered, the evaluation of which will form part of the final grade.

PSY/310 - NEUROCOGNITIVE BASES OF LEARNING
In this course, considerable emphasis will be placed on understanding the mechanisms and processes underlying learning, the factors that influence it (e.g., memory and emotions), and the analysis of the neurobiological correlates underlying learning. In addition, the course will provide the knowledge and skills necessary for students to describe different cognitive functions critically, understand the importance of scientific research in this area, and be able to use appropriate technical language.

PSY/320 - PSYCHOLOGY OF INNOVATION
This purpose of this course is to address how and why psychology can and must deal with constant and continuous change imposed by digital transformation. An emphasis will be placed on approaches and methods designed to help hold people and their goals together during the process.

PSY/350 - PSYCHOLOGY OF INTERACTION IN DIGITAL CONTEXT
This course aims to address how, in contemporary society, dialogue is diluted by mediated communication and the psychological impact it has on people's lives.

PSY/400 - DIGITAL TECHNOLOGIES AND PSYCHOLOGICAL DEVELOPMENT
This course will explore the psychological dynamics involved in a person's interaction with digital media, specifically focusing on social robots and social networks and the variation of these dynamics as a function of age.
The psychological processes that make them functional or dysfunctional, as well as their potential for development, will be described. The role of educational facilities in promoting the conscious and safe use of new technologies will also be analyzed. Finally, the psychology of video games will be explored.

PSY/430 - NEURAL LEARNING AND DEEP LEARNING
This course explores how, in the field of neuroscience, the term neural network is used as a reference to a network or circuit formed by neurons and how neural networks reflect the behavior of the human brain, enabling computer programs to recognize patterns and solve common problems. It then addresses the meaning of Deep Learning, which

indicates that branch of artificial intelligence that refers to the structure and function of the brain. From a scientific perspective, it analyzes how Deep learning is a learning technique in which artificial neural networks are exposed to vast amounts of data so that they can learn to perform tasks.

PSY/450 - RISK BEHAVIORS AND CONDUCT AND PSYCHOPATHOLOGIES IN DIGITAL CONTEXTS
The objective of this course is to analyze, on a theoretical level, risk behavior on the Internet in all its forms. The issue of loneliness is examined, and its most common causes will be outlined.
At the practical level, the course aims to identify differences in the incidence of Internet risk behavior in adolescents by analyzing their socio-demographic characteristics.

PSY/495 - SENIOR PROJECT
The senior project may take many forms: it may be a group project to pursue an identifiable problem with a faculty sponsor or may involve choosing a topic for critical review.
Prerequisite: *90 Credits*

PSY/600 - EDUCATIONAL PSYCHOLOGY AND MULTIMEDIA LEARNING
The Educational Psychology and Multimedia Learning course aims to analyze the cognitive, metacognitive, emotional, motivational, and relational processes involved in multimedia learning and their role in developing learners' knowledge, skills, and attitudes. Adopting the perspective of developmental and educational psychology, the peculiarities of learning and teaching through information and communication technologies (ICT) will be highlighted, as well as practical approaches and strategies in different educational contexts.

PSY/610 - MACHINE EPISTEMOLOGY
The "machine" since antiquity has been at the center of history, from the earliest mythical times of mechanà (cf. *deus ex machina*) when it was a device for acting beyond the nature of things, up to the origin of the classical world, from which it derives, and not only etymologically, the engine and engineering in general. The machine in more recent times has undergone profound conceptual transformations: from the machine of motion (mechanical) to the machine of changes (technological, energetic) to the machine of information and virtuality. This course investigates the frontiers between technology and society, between science and art, within the context of culture, which is the sum of our experiences.

PSY/620 - SOCIAL PSYCHOLOGY: COUNSELING TECHNIQUES FOR EDUCATION
This course analyzes the effects of schooling in the short and medium term. It addresses the problems of everyday life in the classroom as a place where (through the construction of routines and rules of conduct) teachers and pupils negotiate and define the primary coordinates of educational dynamics. Some recent experimental research documenting the constructive function of social interactions in acquiring individual skills is illustrated.

13.2.11 SOCIOLOGY

SOC/100 - PRINCIPLES IN SOCIOLOGY
This course studies the theories and ideas behind sociological analysis. The discipline's origins are examined in depth by studying the work of some of the most relevant Western sociologists. The students will learn to use the essential sociological tools for analysis and research, familiarizing themselves with the main sociological concepts and definitions.

SOC/110 - DIVERSITY AND SOCIAL JUSTICE
The course covers the scope of oppression, exploring a mix of short personal and theoretical essays and entries designed to challenge students to take action to end oppressive behavior and affirm diversity and racial justice.

SOC/120 - CULTURE, CONSUMPTION, AND THE CITY
This course examines the development of consumer culture and consumer society.
The course focuses on developed Western societies, but an analysis of consumer culture in developing countries is also included. The main changes in industries and cities, materialism, and consumerism's social consequences are analyzed in detail.

SOC/130 - TECHNOLOGY, VALUES, AND SOCIETY
The idea behind this course is that to understand the reach of contemporary technology, we need to focus on the role played by values. We are immersed in technology. We live in a space that is half social and half technological. Technology inevitably influences society, culture, and values in such a situation. Suppose technology, values, and politics are the core elements of a techno-ethical discourse. In that case, the social sciences can play a vital role in helping to understand the interactions among the various aspects of that discourse.

SOC/200 - SOCIOLOGY OF DIGITAL CONTEXTS
Millions of people inform and interact with each other through the Internet. Everyone, in their way, participates in the networking of news and the transformation of these communication and socialization tools. Blogs, wikis, and social networks are - above all - tools of social relations.

The participatory web thus forces a profound rethinking of the classical concepts of the sociology of communication. The course offers an in-depth analysis of the tools and platforms known to the general public, from Facebook to YouTube. It examines the ethical and social consequences of the use of new technologies.

SOC/220 - SOCIO-PSYCHOLOGICAL FOUNDATIONS OF DIGITAL COMMUNITIES

The course aims to provide the theoretical tools for understanding and intervening in digital communities. This is fundamental to understanding the mechanisms that regulate the self within social groups and how psychological processes related to the self and groups are activated in digital contexts. The first part of the course will enter the realm of digital systems, analyzing the psychological processes that can occur in online communities at the interpersonal/intra-group level. The second part of the course will present psychological theories central to understanding groups. Finally, the third part will consider the inter-group psychological processes in online communities. Upon completion, the student should be able to understand what occurs in online communities at the interpersonal, intra-group, and inter-group levels and actively work in such contexts to promote social well-being.

SOC/250 - SOCIETY AND DIGITAL EDUCATIONAL CONTEXTS

This course explores the methodological and didactic skills needed to analyze, evaluate and design an education context in which the integration of digital technologies could generate a learning model that can be intersubjectively considered effective and sustainable. The course will delve into issue that may seem, at first, marginal. Conversely, the course will describe and explain how these issues are fundamental to understanding the complexity of our interaction with technologies (digital and otherwise). It will analyze how it is impossible to reduce the study and reflection related to digital education contexts to a mere informatics update of a learner's skills.

SOC/300 - SOCIOLOGY OF MEDIA AND COMMUNICATION

This course rereads classical theories in light of the digital revolution and seeks to answer the question: Does mass media manipulate public opinion? In what ways? With the digital shift, are we witnessing the construction of new forms of propaganda? How do we read phenomena such as fake news, echo chambers, or the polarization of online audiences? The course answers these questions by identifying and analyzing the various theories that have accompanied the development and emergence of mass communications and rereading their conceptual tools in light of the digital revolution of recent years. It also describes the significant transformations that affect the power of the media to construct social reality vis-à-vis the audience.

SOC/350 - DIGITAL COMMUNITIES: EDUCATIONAL AND FORMATIVE ELEMENTS

The main objective of this course is to identify the elements needed to improve digital learning and to train students with the skills required to implement them. The course will focus on the more disadvantaged sections of society, their challenges and solutions that will provide them the opportunity to develop and expand their digital skills. The goal is to promote social and inclusive growth and to facilitate paths to digital transition. Digital inclusion, the design, implementation and dissemination of literacy initiatives and the promotion of digital literacy methods and activities will be studied as objectives for achieving this goal.

SOC/370 - CORPORATE AND INSTITUTIONAL COMMUNICATION

This course will provide students with the technical and information basis required to define an institutional or corporate communication process, based on and in line with the most up-to-date practices. Beginning with a historical overview of a variety of communication scenarios, the topics covered identify various stages of the communication process, content and target audiences.

SOC/600 - SOCIOLOGY OF DIGITAL MEDIA

This is an advanced course for graduate students. It will provide students with a rigorous introduction to the sociological study of digital media through the exploration of the social, cultural and educational implications of digital media technologies in contemporary society. The course will identify and examine the theoretical and methodological issues, and the social conditions that underpin them, that arise when sociological techniques are used to investigate the ever-growing influence of digital media in daily life. Specific topics will include, but not be limited to, the sociological theories and concepts relevant to the study of digital media, analyses of the social impacts of digital media, the role of digital media in educational settings and on social institutions, the influence of digital media on individual and collective identities, the role of digital medial on activism, political participation and social change and, the ethical responsibilities of digital media users and content creators.

SOC/610 - DIGITAL INNOVATION AND NEW WELFARE

The course covers how to transform welfare as society moves through the digital transition. Welfare is an important and controversial sector that is concerned with providing services for people. It must be protected from some of the logic that characterizes the age of digitization. New innovations are entering everyday life at a rapid pace and they are changing how services are used and people's expectations of them.

13.3 SCHOOL OF INTERNATIONAL BUSINESS

13.3.1 BUSINESS

BUS/110 - INTRODUCTION TO BUSINESS
This course overviews the modern business environment and the critical managerial competencies required to manage complex, innovative, and rapidly changing organizations. Typical topics of this course cover: Business and sustainability, the evolution of business, entrepreneurs, managers and employees, multinationals and the global environment of business, business ethics and the atmosphere of business, leadership, influence, and communication in business motivating and managing people and groups in business organizations, the structure, and culture of a business organization, information technology, and e-commerce, marketing, and product development, sales, distributions and customer relationship management, distributions management, operations management, HRM management, general concepts on accounting and finance.

BUS/140 - INTRODUCTION TO ACCOUNTING
This course will introduce students to the basic concepts of accounting. The course material addresses essential topics such as sustainability, accounting, business, business processes and accounting information, operating processes, planning activities, recording and evaluating functional activities and the conversion process, introduction to financial statements, and capital budgeting concepts.

BUS/200 - FINANCIAL ACCOUNTING
In this course, students are trained to prepare and analyze financial statements and apply specific accounting principles and criteria. The course covers all critical relevant aspects of the accounting process. Such as principles and concepts, the accounting equation, the financial statements, transaction analysis, double-entry accounting, recording transactions, the trial balance, using accrual accounting to measure income, cash-basis accounting, preparing the financial statements, internal control & cash, ethics, sustainability, and accounting, short-term/Long-term investments, liability and equity, financial statement analysis, time value of money, generally accepted accounting principles (GAAP), and the IAS/IFRS.

BUS/220 - PRINCIPLES OF SUSTAINABLE MANAGEMENT
This course introduces the students to a set of principles of management and sustainability aiming to develop a sustainability-oriented mindset for future leaders and business managers. The course covers essential related topics, including taking sustainability into economics, putting a price on the planet, and understanding the value sustainability management aims to create for people, the world, customers, and global corporate shareholders and stakeholders. The course also introduces the basic concepts of sustainability management relating to ethics, corporate governance, corporate social responsibility, and legal and regulatory requirements. It also covers other central management themes such as planning, organizing, leading, and controlling.

BUS/230 - GREEN BUSINESS STRATEGY
This course explores the economic, political, marketing, social, and environmental benefits a green business strategy may generate for companies and all their stakeholders in the long term. The course also explains how to implement the green business strategy to achieve successful long-term sustainable results and create durable competitive advantages. Typical topics include natural drivers of the green wave, greening as a commitment, core competence, competitive environmental strategies, eco-efficiency, eco-branding, environmental cost leadership, sustainable value innovation, green design, and beyond.

BUS/240 - HUMAN RESOURCES MANAGEMENT
One of the most critical competitive advantages and sustainability drivers of all organizations is represented by efficient, knowledgeable, and highly motivated human resources. This course introduces the students to managers' core competencies to develop to become excellent human resources managers and achieve challenging corporate goals with their teams. The course also addresses the critical theories and best practices in employee-management relationships and labor unions-management negotiations. Key topics include staffing and organization, developing human resources, and managing and compensating human resources.

BUS/250 - PRINCIPLES OF FINANCE
This introductory finance course aims to expose students to the basic concepts, theories, and practices of the financial management function and the domain of money, banking, and financial markets. Emphasis will be placed on the theoretical models as well as the practical problems related to banking and financial markets, financial statements analysis, financial management, taxes, cash management, working capital management, time value of money, capital budgeting decisions, choosing a discount rate, using economic planning models for valuation, introduction to portfolio analysis and the capital asset pricing model, using SML to measure investment performance, security, stock, and bond valuation, capital structure and dividend policy, option, and option valuation.

BUS/260 - FINANCE WITH A HISTORICAL AND MORAL PERSPECTIVE
The course aims to give students a basic set of concepts, methodological tools, and knowledge in finance to

understand the main primary of financial crises from a historical and moral perspective. The course is divided into modules and selected case studies: some hints in financial history, introduction to basic financial instruments, essential microeconomics for finance: information, incentive theory, game theory, principal-agent issues, mechanism design; the nature of the present economic crisis; case studies.

BUS/270 - PRINCIPLES OF MARKETING

This course introduces the students to the principles of marketing management. It gives the students a general understanding of the fundamental theories, strategies, policies, tactics, and best practices of successfully managing a marketing function in a modern business organization. Key topics of the course include: defining marketing and the marketing process, creating and capturing customer value, company and marketing strategy, understanding the marketplace and consumers, designing a customer-driven marketing strategy and marketing mix, online marketing, global marketing, marketing ethics, sustainability, and social responsibility.

BUS/280 - BUSINESS MANAGEMENT AND DIGITAL APPLICATION

The course aims to provide practical knowledge and skills to help students navigate the digital business. The course identifies and presents the fundamental management principles and decisions required by organizations transitioning to digital companies and considers how these decisions can be made. The course core topics covered include:
Introduction to Digital Business and E-business; E-commerce business models; Macro Environment of Digital Business; Digital Business technology platforms; Digital Business strategy; Digital supply chain management; E-commerce and freight distribution; Innovative urban freight transport; Digital Marketing; Introduction to Big data Analytics; Managing digital business transformation.

BUS/290 - PROMOTION AND ADVERTISING

This course addresses the topics of promotion and advertising, which are critical to successful product and brand positioning strategies. Students learn how to formulate a promotional mix strategy by discussing the recent advertising effectiveness, budgeting, media selection, and scheduling of advertisements. Other vital topics include integrated marketing communication, communication, promotion, ethics and sustainability, the creative process, copywriting, campaign management, public relations, media advertising, direct marketing, sales promotion, and internet advertising.

BUS/300 - VISUAL MERCHANDISING

This course outlines the principles of visual merchandising and their application, experimentation, and evaluation. The course discussions will address topics such as the role of a visual merchandiser, store design, windows, and in-store visual merchandising. The students are exposed to the impact of harmony, color, and arrangement on merchandising effectiveness—the role of sustainability in modern marketing and merchandising strategies.

BUS/310 - CONSUMER BEHAVIOR

This course analyzes the key factors that influence consumer purchasing behavior. Special attention will be placed on the managerial implications that consumer behavior studies have on market strategies and marketing programs. Key topics of the course include an introduction to the consumer research process; market segmentation, consumer motivation, personality, and consumer behavior; consumer perception; consumer learning, consumer attitude formation, and change; communication and consumer behavior; the influence of culture and subcultures on consumer behavior, diffusion of innovations, consumers social responsibility, sustainability, and green marketing.

BUS/320 - MARKETING RESEARCH METHODS

The course is aimed to teach students the techniques and research methods used in marketing. Students will learn to collect, analyze and use available information to conduct practical market research projects. Key topics of the course will cover the definition of the problem, the research design, the creation of the research plan, the choice of research tools, the sampling methods, the qualitative and quantitative research methods, the measurement process, data collection, and the presentation of research results. The focus will also be on research for value creation and sustainability-related innovation.

BUS/330 - MANAGERIAL ACCOUNTING

The course explores how accounting creates vital information for the management process (planning, control, and decision-making). The course analyzes in detail key themes such as cost-volume-profit relationships, break-even analysis, job-order costing, activity-based costing, process costing, cost behavior: analysis and use, profit planning, standard costs, flexible budgets and overhead analysis, capital budgeting decisions, full costing, and direct costing systems, the relationship between price, profit, and sustainability.

BUS/340 - E-BUSINESS IN THE DIGITAL AGE

This course examines the ICT and e-business environment's impact on the modern economy. The course explores how these new e-business technologies have significantly changed and continue to transformation ship between organizations and their clients. It discusses, in other words, the practical uses of this application in the business world. Key topics include e-business and e-commerce, e-business infrastructure, e-environment, e-business strategy, application, and sustainability. Other essential course topics are organizational strategy, online marketing, e-business entrepreneurship, and the competitive advantage of online systems for value creation.

BUS/350 - BUSINESS STRATEGIES
The course introduces concepts and analytical techniques for creating a sustainable advantage in complex, competitive environments. The perspective adopted for this course is that of the top manager responsible for the firm's performance or a business unit within the firm. Such a manager needs to understand the basis for the firm's current version and to identify those changes (inside or outside the firm) that are most likely to affect future performance adversely or provide opportunities for the firm to improve its performance. The manager must then use the firm's resources to formulate and implement strategies to compete successfully in its new environment. The strategy must define the scope of the firm's activities, the logic through which the actions result in better performance, and what it is about the firm that allows it to carry out those activities better than its competitors. Having a solid understanding of strategy is not only vital for top managers. Still, it is also essential for external consultants, auditors, financial analysts, and bankers to evaluate and value other firms.

BUS/360 - INTERNATIONAL BUSINESS AND GLOBAL ECONOMICS
This course explores international business and multinational organizations' theories, concepts, and best practices. It introduced students to vital related themes such as the world's marketplaces and international trade, legal, technological, and political forces in the global business environment affecting sustainability and business growth, the role of culture, ethics, corporate responsibility in international business, international trade and Investment theory, international monetary system and the balance of payments, foreign exchange, and international financial markets, managing international business and operations. This course examines the evolution of global economic policies and events and their impact on countries' relations, wealth creation, and sustainability. Key topics include Introduction: an overview of the world economy, comparative advantage, international factor movements, tariffs, international trade policy, international trade and economic growth, national income accounting and the balance of payments, international transactions and financial markets, exchange rates, money, interest rates and price levels, macroeconomic policy and floating exchange rates, fixed exchange rates and currency unions, international monetary arrangements, capital flows, global economic interdependence, roles of the International Monetary Fund, World Bank, and World Trade Organization and debt burdens of developing countries.

BUS/370 - SERVICES MARKETING
This course introduces the students to the theories, concepts, and best practices of service marketing and service management. The module gives students a full awareness of the importance of services that are critical drivers of the modern economic system. Services are responsible today for creating a substantial majority of new jobs. In addition to that, the service industry is becoming more and more competitive within the global scenario. The module highlights the differences between the service industry and manufacturing businesses. The ultimate objective of the module is to teach students how to develop successful strategies and techniques of marketing for service organizations. Key topics of the course include understanding services, managing services, focusing on customers and planning and working relationships, marketing mix in the service industry sustainability, and the service industry.

BUS/380 - PUBLIC ACCOUNTING
The course aims to provide the cognitive and interpretive tools of accounting dynamics in the public sector. The student will gain knowledge of general budget laws, will understand the processes, and know how to analyze information from different sources.

BUS/390 - BUSINESS ANALYSIS AND VALUATION
This course is about analyzing financial information arising primarily from entities' financial reports. Fundamental analysis techniques are examined in detail with particular emphasis on applying these techniques in equity (share) valuation decisions. The course comprises three related parts. Part one outlines the four basic steps in the fundamental analysis framework: business analysis, accounting analysis, financial analysis, and prospective analysis. The next part combines these skills in addressing the question of valuation. At the same time, the final section of the course applies the skills in several different contexts, such as credit analysis, security analysis, mergers and acquisitions, and financial policy decisions.

BUS/400 - SOCIAL MEDIA MANAGEMENT
This course will explore social media from a public relations perspective and help us understand how our roles as strategic communicators have evolved. You will learn to develop a social media strategy, create content, and measure meaningful results to reach brand goals and reach key audiences. Social media changes every day. Because of this, the course content may also change, allowing us to address and analyze what's happening across the industry. This course is centered on you and your needs. As such, the course will provide the opportunity for hands-on learning and real-world applications to help you gain experience and build a robust portfolio that showcases your social media and strategic thinking skills.

BUS/405 - INTERNATIONAL TRADE AND FINANCE
This course surveys international economics, specializing in open economy macroeconomics. Specific reference will be made to global monetary policy and international financial market architecture. Topics include the structure of inter

globular markets; the role of central banks; exchange-rate systems; the determination of the balance of payments and exchange rates; macroeconomics of open economies; the International Monetary Fund; and financial crises.

BUS/410 - FINANCIAL REPORTING AND STRATEGIC COST ANALYSIS
The course deals with a strategic cost analysis to improve the company's positioning strategy. This can be achieved by thoroughly understanding which activities and costs support an organization's strategic position and which activities and expenses are weak or have no impact.

BUS/415 - INTERNATIONAL ACCOUNTING AND REPORTING
The course aims to contextualize and develop the main aspects of the preparation of financial statements according to international accounting standards, with considerable attention to the comparison of national and international accounting practice; the course is in the area of the business administration disciplines that broaden and deepen the knowledge acquired in business administration and accounting and financial reporting.

BUS/420 - KNOWLEDGE AND INFORMATION MANAGEMENT
The course introduces basic concepts and ideas on acquiring, creating, and externalizing knowledge in modern organizations. The main objective of the course is to enable students to gain a critical understanding of knowledge as the engine of the organization's unique strategic skills; learn to measure knowledge resources; develop analytical thinking when investing in knowledge resources; apply econometrics better to understand the effect of business knowledge on performance. This course addresses different aspects of knowledge management: taxonomies of knowledge, the SECI model and its applications, knowledge-driven value creation, polarity management, and learning organization.

BUS/425 - PRODUCTION INNOVATION AND TECHNOLOGY MANAGEMENT
The course aims to develop students' conceptual knowledge and practical skills related to the management of technological innovation through the various stages of the innovation process. This course analyzes how small and large businesses can compete in competitive markets through technology and innovation management. There will also be a focus on how small and large companies can identify market needs and commercialize innovations. The course emphasizes the role of social media and social networks in developing, guiding, and managing innovations.

BUS/435 - STRATEGIC BUSINESS MANAGEMENT IN AN INTERNATIONAL CONTEXT
This course focuses on the strategic challenges facing companies competing in the global economy; A company's strategy is its theory of how to gain a competitive advantage and compete successfully in the market. Strategic management is how managers, especially executives, develop and implement a strategy company. Our goal is to understand better the most fundamental question in strategic management of the sector: what determines the success and failure of companies?

BUS/440 - CORPORATE STRATEGIES FOR ENVIRONMENTAL AND SOCIAL RESPONSIBILITY
This course explores the growing trend and unique opportunities generated by developing an "Environmentally-conscious management" and a strong "corporate social responsibility" approach in business organizations. have traditionally been viewed as necessary. Many firms are learning the lesson and are considering environmental and social issues as a great opportunity and embracing socially responsible behavior as a competitive strategy. In this course, the students will explore what leading companies do in areas such as fair wages, privacy concerns, affirmative action, sexual harassment, employee rights, worker safety, consumer safety, animal testing, human rights, and environmental considerations. The course covers traditional business strategy topics and new and emerging environmental and social responsibility strategies. Particular attention is paid to understanding how these activities provide a competitive advantage in the marketplace.

BUS/445 - FINANCIAL MARKETS AND INSTITUTIONS
This course aims to give participants a general understanding of the functions performed by financial markets and intermediaries within the financial system.

BUS/450 - MANAGEMENT AND ENTREPRENEURSHIP
Through studying critical theories from sociology, psychology, and economics, this course explores and describes the development of new ventures with a particular focus on international entrepreneurship, financing, the transition of the family business, and sustaining firm growth. The courses require the students to complete several operational activities, which include, among other deliverables, the submission of written assignments, case analyses, the development of a business plan, an interview and report about an entrepreneur, and a written examination; students will balance entrepreneurship theories with practice.

BUS/455 - LEADERSHIP AND ORGANIZATIONAL BEHAVIOR
The course analyzes to understand leadership and organizational behavior with critical skills, especially in today's increasingly globalized and competitive economic context. This course examines people in organizations, focusing on managing and leading practices influencing employees' and teams' attitudes, motivation, behaviors, and performance. The course content is derived primarily from contemporary theory, research, and training in the organizational behavior

and management discipline.

BUS/460 - OPERATIONS MANAGEMENT
The course introduces the student to the theories and practices of operation management in modern and innovative organizations. It explores key concepts and topics related to manufacturing and operations process efficiency and productivity, which can significantly increase companies' value-creation strategies. Specific focus is dedicated to the following ideas and practices: competitiveness, strategy, and productivity, forecasting, system design, product and service design, strategic capacity planning, process selection, and facilities layout, location planning and analysis, quality management, quality control, supply chain management, inventory management, and scheduling, aggregate planning, MRP and ERP, JIT and Lean Operations, project management.

BUS/465 - SUPPLY CHAIN MANAGEMENT
The course explains the cross-functional integration of key business processes within the company and through the network of companies that comprise the supply chain. The challenge is to determine how to implement this integration successfully. The distinction between logistics and supply chain management is identified, and a framework for SCM is presented. One session will be devoted to each of the eight supply chain processes, as well as topics such as the management components of supply chain management; electronically connecting the die; integrating the supply chain strategy with the business strategy; mapping the supply chain; supply chain metrics; develop and implement partnerships in the supply chain; and, implementing supply chain management.

BUS/470 - GLOBAL RISK MANAGEMENT
Today's world is rapidly changing, and uncertainty affects organizations of all sizes and geographical locations. Managing companies in this turbulent and challenging environment are complex, requiring managers to develop strong capabilities and competencies in effective risk management and sustainability management. This course helps students and future managers to master these skills through comprehensive training on best practice risk management and enterprise risk management frameworks. The course uses the case study approach supplemented by readings and lectures.

BUS/475 - CROSS-CULTURAL HUMAN RESOURCES MANAGEMENT
This course presents a problem-solving, decision-making approach to international human resource management and the complexity of managing global or cross-cultural organizations. This course explores the challenges and opportunities related to cultural differences. It builds on the impact of the functional management disciplines such as marketing, finance, control, personnel strategy, organization behavior, and negotiation of cross-cultural approaches. Specific topics include: the globalization of HRM, creating the international organization, international HRM and culture, global employment law, industrial relations, sustainability, and international ethics, global talent management staffing, training, management development and compensation in multinational enterprises, international employee performance management, cross-cultural organization: the multicultural model.

BUS/480 - CAPITAL MARKETS AND RISK MANAGEMENT
This course is designed for those interested in a career in fund management, bond research, and equity research. Students will learn in detail key theories, concepts, and practices of operations undertaken in the financial markets. A particular focus is dedicated in this course to the following topics: the structure of financial markets, the money markets, the bond markets, the stock market, the foreign exchange market, the derivative markets, the structure of commodity markets, the energy markets, interest immunization, the covering of the term structure of interest rates, valuation models for bonds, risk assessment, and mitigation, expected returns and portfolio management, scenario analysis, decision trees, and simulations, Value at Risk (VAR), natural option, risk management: profiling and hedging, risk management and sustainability.

BUS/485 - INTERNATIONAL MARKETING ORGANIZATION
The course focuses on the conceptual framework for international marketing and the business environment (economic, socio-cultural, political, legal, and regulatory) in which global companies must operate. It provides the student with the knowledge and tools for assessing and analyzing international market opportunities and threats, as well as the ability to formulate marketing strategies and programs with a global perspective. It presents the interplay of dynamic driving forces in the global business environment, the rapid economic integration of the world, and how these factors impact the formulation and implementation of international marketing strategies.

BUS/495 - SENIOR PROJECT
The senior project may take many forms: it may be a group project to pursue an identifiable problem with a faculty sponsor or may involve choosing a topic for critical review.
Prerequisite: *90 credits.*
Credit Hours: 6

BUS/555 - ADVANCED ACCOUNTING
This course will allow students to successfully understand accounting concepts, interpret and prepare financial statements and apply the methods learned to understand and resolve common business problems. Typical topics

covered in the course include financial reporting framework (IFRS/IAS and GAAP), introduction to financial statements and financial reporting, the accounting equation, transaction analysis, debit/credit transaction, accrual accounting, assets, and asset valuation, taxation, debt, ratio, and financial analysis, cash flow analysis, off-balance sheet assets and liabilities, pensions, stock compensation, and other employee benefits, global operations and group accounting, income preparation and adjusting entries, closing entries, and financial statements preparation and analysis, internal control and cash, short-term investments and receivables, inventory and cost of goods sold, plant assets and intangibles, liabilities, stockholders equity, long-term investments, and international operations, the statement of cash flows, introduction to the time value of money, balancing accounting objectives, sustainable goals, and the balanced scorecard.

BUS/560 - CORPORATE FINANCE

This course is designed to provide an overview of the fundamental concepts and tools for financial management in a business firm. This course will explore the role of the financial manager in the corporate world and the critical topics of financial management and corporate finance. Typical topics covered in the course include the forms of business organizations, the goals of financial management, the agency problem and the firm's corporate governance, financial markets, and the corporation. All essential topics will address the analysis of the financial statements (ratio and cash flow analyses), the Du Pont Model, the Modigliani-Miller Model, the Long term financial planning and growth, time value of money, discounted cash flow valuation, interest rates, and bond valuation, stock valuation, capital budgeting, risk, and returns and the security market line, options, cost of capital (WACC), CAPM, APM, IPOs, new equity sales, rights, dilution, financial leverage, and capital structure policy, dividends and dividend policy, short-term finance and planning, cash and liquidity management, credit, inventory, and working capital management, some essential elements of international finance and financial engineering, leasing, option valuation, and crucial aspects on M&A, managing shareholders' value maximization with particular attention to sustainability issues.

BUS/565 - QUANTITATIVE METHODS FOR DECISION MAKING

This course will give students robust tools and metrics to make quality managerial and personal decisions. Since uncertainty, multiple objectives, and complexity make many decisions difficult; managers must rely on effectively using various available information, then analyze this data and create realistic models and forecasts regarding current and future events. In addition to studying standard statistical techniques, multiple regression, cluster, factor, and cost/benefit analyses will be introduced along with game theory, risk analysis, and Bayesian statistics. This course will build the student's repertoire of robust tools to make responsible decisions for present and future problems, evaluate potential risks and tradeoffs, and reasonably predict the competitor's actions. Typical top course topics preclude basic calculus concepts, descriptive and inferential statistics, decision-making under uncertainty, risk, and uncertainty, scenario planning, decision trees, influence diagrams, a simulation application, decisions involving multiple objectives, resource allocation, sustainability, and negotiation problems.

BUS/570 - ETHICS, LAW, AND BUSINESS

This course will give the student a solid foundation in law, business ethics, sustainability, and social responsibility. It addresses introductory topics such as Common Law, Statutory Law, Administrative Law, Constitutional Law, Crime, Dispute resolution, and International Law. It focuses on specific legal issues such as contracts, commercial transactions, agency and employment law, business organizations' legal vehicles, government regulations, and property and cyber law. Special attention is given to studying business ethics, law, and corporate social responsibility, focusing strongly on sustainability issues and environmentally responsible economic growth. The course will also address the responsibilities of all stakeholders involved in the corporate world, focusing on law and sustainability.

BUS/575 - MARKETING STRATEGY AND IMPLEMENTATION

This course aims to introduce MBA students to the principles of marketing management, to develop an understanding of the concepts, principles, tools, and techniques of marketing management, and to highlight current issues in the marketing field. The course will equip students with the analytical tools to help them in marketing decision-making and understand marketing as a managerial activity and its relationship with other management functions. The course covers a general overview of essential marketing management topics such as creating and capturing customer value, customer relationship management, marketing strategy, analyzing the marketing environment, managing marketing information, consumer and business buyer behavior, segmentation, targeting and positioning, marketing mix decisions and policies, creating competitive advantages, the global marketplace, and sustainable marketing (social responsibility and ethics).

BUS/585 - ORGANIZATIONAL THEORY AND OPERATIONS MANAGEMENT

This course introduces MBA students to organizational structures, behavioral principles, and concepts. Both theory and practical application will be addressed. The students will gain in this course a working knowledge of the impact of external factors on business decisions relative to the accomplishment of the mission and objectives of an organization. They will also gain an understanding of various forms of ownership to determine their appropriateness relative to an organization's resources, goals, and objectives. Furthermore, the students will understand different business functions and practices, their impact on a business's successful operation, and the impact of business decisions on the external

environment. The course covers Organizations and Organization Theory, Strategy, Organization Design and Effectiveness, Fundamentals of Organization Structure, Organizational Culture and Ethical Values, Decision-Making Processes, d Conflict, Power, and Politics, and Management of people and organizations with attention to sustainability.

BUS/590 - GLOBAL ECONOMICS

This more advanced economy aims to explore the global perspective of economic policy and analysis. The course details the most relevant aspects of the World Economy, such as international trade, comparative advantage, absolute advantage, the production possibilities frontier, factor endowments, and the commodity composition of work. Among this course's other topics, a particular focus will be dedicated to intra-industry trade, international factor movements, tariffs and nontariff distortions to business, international trade policy, regional economic arrangements, international trade, and economic growth. The course will also focus on emerging and developing countries, national income accounting and balance of payments, international transactions, financial markets, macroeconomic policies, exchange rates, interest rates, financial markets, international monetary arrangements and capital flows, global economic prosperity, and sustainability.

BUS/605 - E-COMMERCE

Internet and e-Commerce today are significant drivers of a company's growth and value-creation strategies. Companies and organizations of all types and sizes systematically use the Web and e-Commerce to design new relationships with their customers, suppliers, distributors, and all other stakeholders. The web strategy is becoming more critical for all companies. It will undoubtedly gain even more attention in the future for its unique, innovative features and unlimited Web 2.0 framework opportunities. The course aims to challenge students to explore the impact of e-commerce in the business world from the point of view of both, Business-to-consumer (B2C) and business-to-business (B2B) perspectives. The course introduces students to a wide range of topics, such as Introduction to e-business and e-commerce, E-commerce fundamentals, E-business infrastructure, E-environment, E-business strategy, application, and sustainability.

BUS/610 - BUSINESS STRATEGY

This course provides an overview of all essential aspects of strategic management. Key topics include strategy formulation, validation, execution, and control. In this course, you will learn analytical techniques for diagnosing the competitive position of a business, evaluating business strategies, and identifying and analyzing specific business options. The student will also be introduced to the Three dimensions of design and the different approach levels within complex organizations. These concepts and frameworks will help you learn to structure complex and unstructured problems in business strategy, providing a solid foundation for managerial decision-making.

Among the most relevant topics addressed in this course are the nature of competitive advantage, corporate-level and business-level plans, strategic leadership, ship and strategy implementation, strategy performance control, and strategic sustainability.

BUS/612 - ENTREPRENEURSHIP

The course explores the domain of entrepreneurship and the challenges of launching and managing successful startup enterprises. It covers with particular attention the managerial implications of managing innovations and creating successful business models and unique value propositions.

The course will help sharpen students' attitudes and skills toward the entrepreneurial mindset. The students are encouraged during the period to envision and evaluate potential start-up opportunities for their personal development. They will be trained to develop a holistic vision of new startups, from a business idea to a successful enterprise. Key topics of the course include the entrepreneurial process, opportunity recognition, understanding the business model and developing a strategy, writing a business plan, managing the startup's l, legal, tax, and financing decisions, building the founding team, and managing a growing business and corporate sustainability.

BUS/613 - ADVANCED APPLIED FINANCE

This advanced course explores financial engineering techniques and their application to various real-world strategies. Students taking this course are familiarized with the theory and practice of derivative markets. The course covers, in particular, the following topics, markets, players and conventions, the syndication process, cash flow engineering and forward contracts, futures, engineering simple interest rate derivatives, introduction to swap engineering, repo market strategies and financial engineering, dynamic replication methods and synthetics, mechanics of options, engineering convexity positions, options engineering and applications, pricing tools and financial engineering, fixed-income engineering, volatility engineering, credit derivatives, equity instruments.

The course also addresses key concepts such as risk and return, project financing, and other advanced finance topics, including shareholders' value maximization and sustainability.

BUS/614 - INTERNATIONAL FINANCIAL STATEMENT ANALYSIS

This advanced accounting course introduces the student to financial statement analysis from an international perspective. Amongst the main topics addressed by this course are the differences and similarities in income statements, balance sheets, and cash flow statements around the world; the impact of foreign exchange rates on the

financial statements of multinational corporations; the difficulty of measuring the value of employee compensation; the importance of income tax accounting and reporting, and the international standards convergence. The course will also address sustainability concepts related to international accounting regulations and corporate growth.

BUS/615 - MONEY, BANKING, AND FINANCIAL MARKETS

This course covers investment banking and the overall domain of money, banking, and financial markets. It introduces students to financial instruments, financial markets, and financial institutions. It addresses topics such as money and payment systems, monetary policy, nature and behavior of interest rates, the role of banks and the banking industry, banking, and financial markets regulations, understanding risk, money markets, bond, stock, and derivatives markets, foreign exchange, the role and policies of central banks, inflation and monetary policy, depository institutions. The course focuses on banking, financial markets, and economic sustainability.

BUS/619 - INTERNATIONAL CORPORATE GOVERNANCE

In the latest years, due to the numerous conflicts of interest issues and ethical problems which have negatively affected the corporate world with severe crises, companies have begun to pay closer attention to the critical role in their organizations of corporate governance to ensure sustainable growth for their institutions and all their stakeholders. The recent globalization phenomenon has demonstrated the benefits and shortfalls of a truly global economy and society. For this reason, international corporate governance principles have become a central theme of MBA students' curricula to ensure the adequate sustainability of business organizations. In this course, students will focus in particular on the following topics, international corporate governance principles, theories, processes, and code of practice; board members' roles and responsibilities; assessment of board and director performance, corporate governance rating systems; understanding the cultural aspects of different approaches to governance, corporate risk assessment, corporate social responsibility, and sustainability.

BUS/620 - CORPORATE SOCIAL RESPONSIBILITY

This course explores corporate social responsibility to shareholders and stakeholders. The course's central theme is based on the rationale that corporations have reason sensibility to society beyond simply making a profit. Students are encouraged to analyze the impact of managerial decisions on profitability and responsibilities towards efficiency, sustainability, employees' welfare, consumers, and the whole community's well-being. Furthermore, they are expected to evaluate how corporations should respond to the demands of shareholder activists and the media on corporate social responsibility concerns, globalization issues, and all other challenges potentially affecting the well-being of the whole community. Further, the course will examine the best practice models of the value of codes, credos, and other normative standards developed to foster responsible corporate behavior. Key topics of the course will also be addressed in the concepts of accountability, business ethics, sustainability, and corporate citizenship. Extensive and systematic case study analyses will be applied to support classroom discussions on this topic.

BUS/621 - SUSTAINABLE SUPPLY CHAIN MANAGEMENT

This course covers the most relevant aspects of sustainable supply chain management in today's corporations. It addresses key topics related to sustainable supply chain management, such as building a strategic sustainability framework to analyze supply chains, designing the supply chain network, planning demand and supply in a supply chain, planning, and managing inventories in a supply chain, managing cross-functional drivers in a supply chain, sustainability, and low-cost country sourcing, product design collaboration, forecasting, distribution system design, channel management, procurement, and logistics and others. It also explores order fulfillment strategies and the impact of the Internet on distribution and back-end supply chain processes.

BUS/634 - VENTURE CAPITAL AND ENTREPRENEURSHIP

This advanced finance and entrepreneurship course aims to fulfill business students who want to pursue a career as entrepreneurs, employees in startup companies, investors, consultants, and any other role involved in the industry investing in startup companies. Key topics of the course cover establishment and development of ventures, financial and business planning, employee recruitment and compensation, intangible capital and intellectual property, financing the venture, the process of raising venture capital, legal and contractual aspects of raising venture capital, valuation of companies, venture capital investors and venture capital funds, business angels and private equity funds, the public offering process, mergers & acquisitions, bankruptcies and dissolution, companies' restructuring.

BUS/635 - STRATEGY AND GOVERNANCE FOR CYBER RISK

This course focuses on how Cyber risk strategy and governance are two expressions that go hand in hand regarding threat prevention.

An increasing fictional interdependence characterizes it as the effectiveness of a cyber risk management strategy derives essentially from the ability to monitor and orchestrate assets and information; in the same way, governance cannot disregard a defensive system that secures the data based on which decision-makers, analysts, and administrators develop plans and procedures.

Dealing, therefore, in parallel with cyber risk strategy and governance means building a logical and operational infrastructure that brings together initiatives from one and the other sphere, highlighting their consequentiality.

BUS/636 - METHODS AND DATA ANALYTICS FOR RISK ASSESSMENT
The course analyzes Risk identification and context analysis: the assets, the threats, and the vulnerability. The regulatory and quality context on information security. Privacy regulations, etc. Risk analysis: quantitative and qualitative methods of analysis. Analysis of risk variability. Descriptive and correlation on risks. Inferential analysis and statistical tests on the determination of risk. Risk treatment: Weighting and mitigation. The information security policy information and controls. Governance and management of security: the organization, figures, and roles within the organizational structure.

BUS/637 - INSTITUTIONAL SCENARIOS OF CYBER RISK
This course will look at international interactions that shape the geopolitical and economic landscape, and how those interactions impact cyber risk, for domestic and international companies. The course will consider strategies to mitigate cyber risk, both publicly and privately, but with an emphasis on governments at all levels of authority.

BUS/638 - DATA PROTECTION
This course addresses the complex issue of data protection. Personal data is a valuable asset. This assertion can be understood in two senses: in a material sense because businesses place a significant economic interest in these data. And in an ideal sense, it is not possible in a democratic state under the rule of law for people not to have at least minimal control over the use of the data concerning them. This task can be challenging as there may also be partially legitimate interests that curtail the right to self-determination, for example, in police investigations. Data protection must ensure proportionality, that only strictly necessary personal data are collected and processed, and that the data subject has the opportunity to control and, if necessary, prevent, as far as possible, the processing of data concerning them.

BUS/639 - BUSINESS AND CYBER INTELLIGENCE
This course will explore cyber intelligence from its origins to its current state and influence. Students will explore the full range of cyber capabilities and cyber intelligence operations and how they impact business practices and decisions today. The course will explore the impact of the cyber industry has influenced intelligence gathering and analysis, and decision-making in business.

BUS/640 - CIRCULAR ECONOMY AND CIRCULAR DISTRICTS
This course provides an overview of the key definitions and terminology in science, technology, and management of the circular economy and the current emergencies related to the circular line and its short, medium, and long-term consequences.

BUS/641 - CIRCULAR ECONOMY AS A NEW ECONOMIC PARADIGM
The course introduces the circular economy as a new economic system focusing on different indicators and goals than the consumerist approach. The course explores how the circular economy will impact the management and development of organizations and will identify the need to create business networks and clusters to manage the circular economy successfully.

BUS/642 - THE BENEFITS OF THE CIRCULAR ECONOMY ON THE ENVIRONMENT
The course highlights how developing circular economy activities will improve the environment and social conditions and support achieving sustainable development goals.
The course identifies the need for business networks and clusters to manage the circular economy successfully. The benefits of a different approach to waste management are emphasized.

BUS/643 - THE CIRCULAR ECONOMY AS A BUSINESS MODEL
The course examines the role of the circular economy for businesses through a business-oriented approach. Therefore, the course content will focus on how to apply the circular economy to a company's business model and how this change may or may not facilitate the company's product positioning. The role of the consumer and the possibility of transforming them into producers will also be studied. The course will also focus on the technologies available to manage circular economy systems properly.

BUS/644 - COLLABORATION AND CIRCULAR ECONOMY IN THE CITY
The course aims to analyze how the creation of an ecosystem can support the application of the circular economy from a broader perspective. In this course, students will explore the importance of collaboration, the need for different types of actors, and the creation of a network to support efficient circular use of resources by considering the city as a scope of analysis.

BUS/645 - SUSTAINABILITY STRATEGIES
The course addresses running your business sustainably, efficiently, and strategically managing your natural, financial, human, or relational resources.
Doing so generates value for the company and has the opportunity to contribute to the growth, improvement, and socio-economic development of the communities in which the company operates and the actors that make up its value chain.

BUS/646 - ENERGY ECONOMICS
This course investigates the theory and practice concerned with the individual and industrial demand for energy, its supply and markets, and the policies impacting each. This course will explore the various energy sectors and delve into pricing factors, deregulation, energy efficiency and public policy.

BUS/647 - ECONOMICS OF RENEWABLES AND ENERGY-SAVING TECHNOLOGIES
This course looks at the challenges and opportunities related to implementing renewable energy project. Students will learn essential concepts, which will then be integrated with available resources to investigate the real-world implications of various projects, including wind and solar energy, bioenergy, green energy, and law and policy limiting climate change.

BUS/648 - WEB MARKETING AND DIGITAL ADVERTISING
Advertising on the Internet is a dynamic discipline that changes constantly. Students will explore methods of maximizing the impact of web-based advertising, incorporating appropriate market analysis strategies, design, and flexibility to target the many avenues of web marketing, including social media, blogging, digital messaging, email, and search engines.

BUS/649 - DIGITAL COMMUNICATION GOALS: BRANDING AND PERFORMANCE
Students will learn to construct strategically designed brands, evaluate growth opportunities, understand the implications of both brand expansion and contraction, and planning to limit threats from competitors.

BUS/650 - DIGITAL COMMUNICATION STRATEGIES
Digital messaging is critical to success in today's business environments. No industry is immune to the impacts of digital messaging, and to standout, firms need create a communication strategy will present an interesting and compelling position. In this course, students learn how to effectively communicate using e-messages, develop attractive websites that are both functional and efficient, and create impactful messages through social media, blogs, and blasts.

BUS/660 - INFLUENCER MARKETING
Influencers are some of the most impactful entrepreneurs of the current business landscape. The partnerships between social media users and popular brands have changed consumer behaviors and generated new career opportunities. This class will explore the partnerships that fostered the influencer profession and how influencers market both their brands and themselves.

BUS/670 - REPUTATION AND CRISIS MANAGEMENT
Reputation and crisis management incorporate multiple platforms, including public relations, search engine optimization (SEO), content marketing, and social media management. Reputation and crisis management strategies involve employing both proactive and reactive principles, at all times, to monitor and positively maintain a business' online profile.

BUS/690 - CAPSTONE PROJECT
Under the approval and guidance of a faculty member, students will prepare a thesis or a project report.
Prerequisite: *30 Credits*

13.3.2 ECONOMICS

ECO/120 - INTRODUCTION TO ECONOMICS
This course in Economics covers introductory topics on Macroeconomics and Microeconomics. These themes include, among others, utility, marginal decision-making, scarcity, opportunity cost, efficiency, supply and demand, the concept of elasticity, consumer and producer surplus, trade, GDP, GNP, fiscal policy, monetary policy, unemployment, inflation, wage and price controls, social security, welfare, national debt, interest rates, aggregate demand and supply, surplus, budget deficit, firms' production, cost and revenue, perfect competition, monopoly, monopolistic competition, oligopoly, international trade, and the analysis of the principles underlying the behavior of individual consumers and business firms. Furthermore, additional topics include problems of international trade and finance, distribution of income, policies for eliminating poverty and discrimination, sustainability and environmental pollution, and the effects of various market structures on economic activity.

ECO/150 - MICROECONOMICS: THE PRINCIPLES OF HUMAN ACTION
This course introduces the students to the principles and theories of microeconomics. Topics include the economic decision of limited resource allocation affecting households and firms, demand and supply, elasticity, efficiency and equity, government actions in markets, utility and direction, preferences and choices, firms and needs, perfect competition, monopoly, monopolistic competition, oligopoly, market failure, and government, externalities, public goods and shared resources, factor markets, inequality, and uncertainty, markets for factors of production, economic inequality, uncertainty, and information demand-supply analysis, theory of markets and public policy, microeconomic problems and sustainability.

ECO/160 - MACROECONOMIC THEORY
This course introduces students to the modern theories and policies of macroeconomics. In this course, students study several aspects of Economics from a national, international, or global perspective. Key topics addressed in this course include international trade theory and policy, exchange rates and open-economy macroeconomics, international macroeconomic policy, macroeconomic problems, and sustainability.

ECO/170 - THE "GLOCAL BACKGROUND": THE GREEN ECONOMY AS A BOOSTER OF SUSTAINABLE DEVELOPMENT (G)
The course is dedicated to the "glocal background" of globalization from the point of view of the new comprehensive concept of a "Green Economy Essentials" basic training will allow students to move "from the know-how to the show-to, developing further vertical inputs from other courses. The keyword sustainable development" will be the common denominator of education.

ECO/180 - CITIES, CULTURE, AND THE ECONOMY
This course exposes students to social institutions or environments that characterize the rise of booming urban economies and flourishing arts and culture. It addresses the interrelations between capitalism, cities, and culture. In this course, students will focus on the dynamics of urban development, towns and suburbs, metropolitan area prosperity, and current policy issues of the political economy related to culture, society, cities, and sustainability.

ECO/210 - CONSUMER BEHAVIOR
This course addresses the study of consumer behavior from the economic perspective based on research findings that have roots in psychology, sociology, and cultural factors that influence consumer decision-making. Key topics of the course are consumers in a changing world, consumer theories, the limits to choice, preference and demand, welfare and consumer behavior, the consumption function, selection under uncertainty, and sustainability.

ECO/270 - ENVIRONMENTAL ECONOMICS AND SUSTAINABLE DEVELOPMENT
This course addresses critical environmental economics and sustainable development topics, giving students a sound and thorough understanding of the most relevant and essential crises studies and lessons learned on ecological economics and sustainable growth.

ECO/280 - NATURAL RESOURCES MANAGEMENT
This course in Economics aims to expand the student's knowledge of the issues associated with renewable and non-renewable resources. Special attention is dedicated to topics such as waste and recycling, sustainable development, biological diversity, environmental degradation, alternative energy sources, population and economic growth, natural resources management, environmental ethics, Issues of optimal extraction and depletion, the effect of alternative market structures, and factor of uncertainty are addressed about efficient management and allocation of these resources.

ECO/290 - PRINCIPLES OF GREEN ECONOMY IN RELATIONSHIP WITH NATURAL RESOURCES
This course is a synergistic mix of the items already developed into the courses concerning Green Economy, biodiversity and sustainable agriculture, and zootechny. The course allows students to acquire the principles of integrating the multidisciplinary sciences of natural resources and the pillars of the economic sciences applied to the environment.

ECO/300 - DIGITAL ECONOMY AND MARKETING I
A growing share of our economy is based on digital goods and services, which form the core of the digital economy. The course introduces the economics of the digital economy. Transient market behaviors, feedback mechanisms, global impact, and international technological globalization of the digital economy. Behavioral insights will also be awarded to understand why consumers (or users) might behave differently digitally than in the physical domain.

ECO/310 - CORPORATE FINANCE
This course addresses the strategic and operational decisions that finance managers make in their corporate role as leaders and supervisors of the finance organizational function. Students will cover topics such as financial statements, taxes, cash flow, cost of capital, working capital management, risk and return, the analysis of financial statements, time value of money and capital budgeting, discounted cash flow valuation, interest rates, stock and bond valuation, NPV and other investment decisions, short-term and long-term financial policy, derivative securities and corporate finance, corporate finance, and sustainability.

ECO/320 - GLOBAL ECONOMY
This course examines the evolution of global economic policies and events and their impact on countries' relations, wealth creation, and sustainability. Key topics include Introduction: an overview of the world economy, comparative advantage, international factor movements, tariffs, international trade policy, international trade and economic growth, national income accounting and the balance of payments, international transactions and financial markets, exchange rates, money, interest rates, and price levels, macroeconomic policy and floating exchange rates, fixed exchange rates and currency unions, international monetary arrangements, capital flows, global economic interdependence, roles of

the International Monetary Fund, World Bank, and World Trade Organization and debt burdens of developing countries.

ECO/330 - PUBLIC FINANCE
This course introduces the students to public policy and its economic impact on society. Based on macroeconomic theory, this course will explore public expenditure: goods and externalities, social insurance and income maintenance, a framework for tax analysis, the national revenue system, multi-government public finance, and privatization. Other essential topics include tax incentives, globalization, behavioral public economics, social insurance, welfare, and sustainability.

ECO/340 - ENTREPRENEURIAL FINANCE
This course aims to develop students' competencies to become successful in entrepreneurial finance. It enables the students to learn all the required steps of the entrepreneurial launch of startups and new business ventures; in particular, it focuses on the development and management of business plans based on detailed and thorough economic analysis, market analysis, accounting principles, work relations, costs, taxation, and other managerial themes. Other essential course topics are purchasing firms, buyouts, valuation, real options, venture capital, angel financing, venture leasing, franchising, banking, licensing, private equity financing, government financing, sustainability, IPOs, and acquisitions.

ECO/360 - MANAGING INNOVATION
This course aims to provide the skills, tools, and approaches for creating sustainable and successful innovation in the digital age. The course is multidisciplinary and built on the latest research on innovation management frameworks, lean methodologies for prototyping, additive manufacturing, and design thinking approaches. You will explore the digital economy's opportunities and create innovation beyond simply copying or reinventing a product or service by solving real societal problems, such as job creation, decreasing side effects eliminating bottlenecks within products, models, and industries. IT frameworks will be identified to facilitate the identification, development, and creative design economically and sustainably. The course will acquire the theoretical tools for creating innovation and teach how to apply them to arrive at product or service innovation within a target market.

ECO/370 - INTERNATIONAL FINANCE
This course examines economic aspects from an international point of view. The course provides the students with theories, models, and tools to properly manage international finance transactions. The critical topics of this course are the motivation for global finance, critical issues in international business finance, international payment mechanism and international money and banking, exchange-rate regimes, international money, and bond markets, nominal rates, PPP rates, and deviations from PPP, forward contracts and forward rate agreements, futures markets, swaps, options, hedging and valuation, managing credit risk in international trade, setting the cost of global capital, international taxation of foreign investments, multinational capital budgeting and sustainability, negotiating a joint-venture contract: the NPV perspective.

ECO/390 - MANAGERIAL ACCOUNTING
Managerial accounting provides information to managers for use within the organization. Managerial accounting is a company's internal language for decision-making, production management, product design and pricing, marketing, and motivating and evaluating employees.

ECO/410 - ECONOMICS OF INNOVATION
The course aims to develop an in-depth understanding of the economic processes underlying the development of innovations and their effects on the economy, society, and the environment. After a brief introduction to the concepts relevant to the understanding of innovation processes and their effects, the course analyzes the main economic models for the analysis of innovation both at the microeconomic level (at the firm level) and at the territorial and industrial groups. At the end of the course, students will be able to understand the fundamental role of innovation in economic growth and sustainable development processes and have a detailed knowledge of the main concepts covered by the discipline. Will I also have basic skills in financial economic models that explain the introduction and diffusion of innovations? Students will also understand various methods to analyze innovation processes at the firm and macro levels.

13.4 SCHOOL OF INNOVATION AND INTELLIGENCE

13.4.1 COMPUTER SCIENCE

COM/105 - INTRODUCTION TO COMPUTER SCIENCE
This is a foundational course that covers the fundamental concepts of computing, including algorithms, data structures, programming languages, and software development.
Students gain theoretical knowledge and practical programming skills to solve problems and build a strong foundation in computer science.

COM/110 - INTRODUCTION TO ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
This is a comprehensive course that introduces students to the principles, algorithms, and applications of AI and machine learning. Students will learn to develop and train machine learning models, analyze data, and explore real-world examples of AI. The course provides a strong foundation for further exploration in this exciting field.

COM/120 - INTRODUCTION TO WEB DESIGN
This course provides students with a broad overview and introduction to web design. Students learn basic HTML and create their sites using web design software. The course covers basic graphic design, programming principles, and server technology used for web design.

COM/130 - WEB SERVICES
The course provides the basic knowledge for designing and developing interactive Web applications, accessible from desktop and mobile terminals and characterized by moderately complex application logic. The ultimate goal is to train programmers capable of producing quality Web applications based on standard architectures that y used in the corporate world. In addition, teaching will cover data representation and interpretation in XML, given its importance in managing interoperability between applications. An SW application will be developed to enable the application of autonomy of judgment in the choice of implementations, critically analyzing the information acquired in the theoretical part of the teaching.

COM/140 - PROGRAMMING I
This course concurs with the educational objectives of a Bachelor of Science degree in Computer Science. It aims to provide the basic programming knowledge and the operation of a virtual interpreter, preparatory to almost all courses.

COM/150 - NEW MEDIA
The course deals with media, computers, and telecommunications in mutual and complex relationships. Then the course describes the birth of the Internet, its applications, the convergence of different media thanks to the network, and its political economy. Next, the social uses and languages of digital media: video games, cellular telephony, sound media, photography, digital cinema and TV, location-based systems, and the more recent developments in the Internet. Indeed, digital media incorporate many innovative technologies, but what will be explored in the course are how they are used and how they change knowledge transmission, behaviors, and common sense.

COM/170 - ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING APPLIED TO BUSINESS
The course deals with advanced topics on Statistics and Machine learning, which allow you to build effective models for data analysis, inference, and prediction and to support decision-making, data management, and computer programming for the construction of algorithms suitable for the implementation and practical application of statistical methods and data analysis tools. Combine quantitative skills with business knowledge to identify new business opportunities and support management with data-driven strategies.

COM/180 - DATA ANALYTICS FOR ECONOMICS AND BUSINESS
The course deals with advanced topics on Statistics and Machine learning, which allow you to build effective models for data analysis, inference, and prediction and to support decision-making, data management, and computer programming for the construction of algorithms suitable for the implementation and practical application of statistical methods and data analysis tools. Combine quantitative skills with business knowledge to identify new business opportunities and support management with data-driven strategies.

COM/190 - COMPUTER NETWORK AND CLOUD COMPUTING
The course studies the fundamentals of data link layer transmission technologies, shared media access and wireless transmission protocols, the TCP/IP protocol suite, and the principles guiding the structuring and design of distributed applications.

COM/191 - METHODOLOGIES AND TECHNOLOGIES FOR TEACHING INFORMATICS
The course aims to provide knowledge of some aspects of Computer Science as a scientific discipline and the rationale behind the need for its teaching; to foster an understanding of pedagogical aspects and theories of learning in the context of teaching Computer Science; and to develop reflective skills about the discipline, bringing out to compare students' initial ideas about the topics covered. Introduces the principal methodologies for building a Computer Science curriculum consistent with the objectives set by the national indications and guidelines. Teaching practices will be

applied in the teaching and learning processes of Computer Science, using digital technologies and unplugged or computerless techniques with activities for different school levels. The relationship between Computer Science and relevant societal issues, such as secular ethics, will be recognized.

COM/210 - E-COMMERCE STRATEGIES AND MODELS

E-Commerce Strategies and Models is a course that provides an in-depth exploration of the strategies and models used in the field of e-commerce. It focuses on understanding the fundamental concepts and principles of e-commerce, including the different business models and strategies employed by organizations in the digital marketplace. Students will learn about the various components of successful e-commerce ventures, such as online marketing, customer acquisition, logistics, payment systems, and security.

The course also examines emerging trends and technologies shaping the e-commerce landscape. Through case studies and practical exercises, students will develop the knowledge and skills necessary to develop effective e-commerce strategies and models for both.

COM/220 - PROGRAMMING II

The course aims to delve into basic computer science concepts, mainly to introduce the object-oriented programming paradigm. Thus, it seeks to refine the programming skills in the Java language learned in Programming I course and introduce the fundamentals of object-oriented programming.

In particular, the course will illustrate the fundamental abstractions for software design (classes and objects), the definition of simple data structures (lists, trees, stacks, queues) and corresponding operations, the fundamental mechanisms for fostering software reuse and modularity (inheritance, polymorphism, generic types), the specification of class invariants and handling their violations (assertions and exceptions), as well as some fundamental Java library classes. Particular emphasis will be given to aspects of good software design, using concepts borrowed from software engineering and graphical formalisms such as UML.

COM/240 - DIGITAL MARKETING

"Digital Marketing" is a course that explores strategies and techniques for promoting businesses online. Students will learn about SEO, social media marketing, content creation, and digital advertising. The course emphasizes targeting specific audiences, measuring campaign success, and optimizing marketing efforts across digital platforms. By the end of the course, students will have the skills to develop effective digital marketing strategies to achieve business objectives in the online realm.

COM/241 - SOCIAL MEDIA AND NETWORKING

Social Media and Networking is a course that explores the impact and strategies of social media. Students will learn about different platforms, content creation, campaign management, and data analysis. By the end of the course, students will have the skills to effectively leverage social media for personal and professional purposes.

COM/242 - MOBILE APPLICATION DEVELOPMENT

Mobile Application Development is a course that focuses on designing and building applications for mobile devices. Students will learn about the fundamentals of mobile app development, including user interface design, mobile programming languages, and mobile development frameworks. The course covers topics such as app architecture, data management, and integrating device features like GPS and camera. Through hands-on projects, students will gain practical experience in developing mobile apps for different platforms such as iOS and Android. By the end of the course, students will have the skills to create functional and user-friendly mobile applications that can be deployed to app stores and used by a wide range of mobile device users.

COM/243 - ELECTRONIC PAYMENT SYSTEM

Mobile Application Development is a course that teaches students how to design and build applications for mobile devices. Students will learn about user interface design, programming languages, and frameworks for mobile development. Through hands-on projects, students will gain practical experience in creating mobile apps for platforms like iOS and Android. By the end of the course, students will be equipped with the skills to develop functional and user-friendly mobile applications for a wide range of mobile devices.

COM/244 - WEB ANALYTICS

Web Analytics is a course that explores the principles, methods, and tools used to analyze and interpret data related to website performance and user behavior. Students will learn how to collect and analyze data to gain insights into website usage, visitor demographics, traffic sources, and conversion rates.

The course covers topics such as data tracking techniques, key performance indicators (KPIs), data visualization, and data-driven decision-making. Students will gain practical experience in using web analytics tools and software to measure and improve website performance, optimize online marketing campaigns, and enhance user experience. Through hands-on projects and case studies, students will learn how to set up tracking systems, analyze website data, generate reports, and derive actionable insights. By the end of the course, students will have the skills to effectively analyze web data, make data-driven decisions, and optimize websites and online strategies to achieve organizational goals.

COM/245 - DIGITAL CONTENT MANAGEMENT

Digital Content Management is a course that focuses on the principles, strategies, and technologies used to effectively manage and organize digital content in various formats. Students will learn about the lifecycle of digital content, including creation, storage, retrieval, preservation, and dissemination. The course covers topics such as content management systems, metadata, content classification, and digital asset management. Students will gain practical knowledge in implementing content management strategies and utilizing software tools for content organization and retrieval. Through hands-on projects and case studies, students will learn how to create and manage digital content repositories, ensure content accessibility and usability, and optimize content workflows. By the end of the course, students will have the skills to effectively manage digital content, enhance information retrieval, and support collaboration and knowledge sharing within organizations.

COM/246 - INFORMATION VISUALIZATION

Information Visualization is a course that focuses on the visual representation of data and information to facilitate understanding and analysis. Students will learn about principles and techniques for designing effective visualizations that communicate complex data patterns and insights. The course covers topics such as data exploration, visual encoding, interaction design, and storytelling with data. Students will gain hands-on experience with visualization tools and software, and they will learn how to transform raw data into visually compelling and informative graphics. By the end of the course, students will have the skills to create visually appealing and meaningful visualizations that help users interpret and gain insights from data in various domains, such as business, science, and social sciences.

COM/247 - CUSTOMER RELATIONSHIP MANAGEMENT

Customer Relationship Management is a course that explores strategies and techniques for building and managing relationships with customers. Students will learn about the principles and practices of effective customer relationship management, including customer acquisition, retention, and satisfaction. The course covers topics such as customer segmentation, CRM technologies, data analytics, and customer loyalty programs. Students will gain practical knowledge in developing and implementing CRM strategies to enhance customer engagement and drive business growth. Through case studies and real-world examples, students will understand the importance of customer-centric approaches and learn how to leverage CRM tools and techniques to create personalized and seamless customer experiences. By the end of the course, students will have the skills to develop and manage successful customer relationships in diverse industries and sectors.

COM/250 - INTRODUCTION TO DIGITAL IMAGING AND VISUALIZATION

This is a course that covers the fundamental concepts and tools used in digital image processing and visualization. Students will learn image manipulation, editing, and design principles while gaining hands-on experience with industry-standard software.

The course explores the applications of digital imaging in various fields, such as media and scientific research. By the end of the course, students will have acquired practical skills in digital imaging and visualization for creative and analytical purposes.

COM/251 - NATURAL LANGUAGE PROCESSING

Natural Language Processing is a course that explores computational techniques for understanding and processing human language. Students will learn about text preprocessing, language modeling, sentiment analysis, and other key concepts. Through hands-on projects, students will gain practical experience in building language processing systems. By the end of the course, students will have the skills to apply natural language processing techniques to solve various language-related problems.

COM/252 - COMPUTER VISION

Computer Vision is a course that explores the theory and applications of visual data analysis by computers. Students will learn about image processing, object detection, and deep learning techniques. Through hands-on projects, students will gain practical experience in developing computer vision systems. By the end of the course, students will have the skills to apply computer vision principles to various real-world tasks, such as autonomous vehicles and medical imaging.

COM/253 - ROBOTICS AND AUTOMATION

Robotics and Automation is a course that explores the principles, technologies, and applications of robotic systems and automation processes. Students will learn about the fundamental concepts of robotics, including robot kinematics, dynamics, control systems, and sensing. The course covers topics such as robot programming, motion planning, robot vision, and human-robot interaction. Students will gain practical experience in designing and implementing robotic systems through hands-on projects and simulations. They will learn how to program robots, integrate sensors and actuators, and develop algorithms for autonomous navigation and manipulation tasks.

Through case studies and real-world examples, students will understand the applications of robotics and automation in industries such as manufacturing, healthcare, and logistics. By the end of the course, students will have the skills to design and develop robotic systems, optimize automation processes, and contribute to the advancement of robotics

technology.

COM/254 - REINFORCEMENT LEARNING

Reinforcement Learning is a course that explores the principles and techniques of machine learning where an agent learns to make decisions through interaction with an environment. Students will learn about the fundamentals of reinforcement learning, including Markov decision processes, reward functions, and policy optimization. The course covers topics such as value iteration, Q-learning, and deep reinforcement learning. Through practical assignments and projects, students will gain hands-on experience in implementing reinforcement learning algorithms and solving complex decision-making problems. By the end of the course, students will have a solid understanding of reinforcement learning algorithms and be able to apply them to a wide range of real-world applications, such as robotics, game playing, and autonomous systems.

COM/255 - EXPLAINING ARTIFICIAL INTELLIGENCE

Explaining AI is a course that focuses on the interpretability and explain ability of artificial intelligence (AI) models and systems. Students will learn about the importance of understanding and explaining AI algorithms and their decision-making processes. The course covers topics such as model interpretability techniques, explainable AI frameworks, and ethical considerations in AI. Students will gain practical knowledge in evaluating and communicating the results and outputs of AI systems in a transparent and understandable manner. Through case studies and hands-on exercises, students will explore different approaches to explain AI models and algorithms to various stakeholders, including non-technical audiences. By the end of the course, students will have the skills to critically analyze AI systems and effectively communicate the rationale and limitations of AI decisions, promoting transparency, accountability, and trust in AI applications.

COM/270 - MANAGEMENT INFORMATION SYSTEMS

Management Information Systems is a course that explores the strategic use of technology in business organizations. Students learn about database management, system analysis, cybersecurity, and integrating technology with business processes.

By the end of the course, students will have the skills to utilize information systems for effective decision-making and gain a competitive advantage in the business world.

COM/275 - ENVIRONMENTS AND TECHNOLOGIES FOR EDUCATION

The course aims to provide methodological, technological, and technical tools to develop competencies to design and support the use of environments and technologies to support teaching and training in formal, non-formal, and informal learning environments; in particular, attention will be paid to the pedagogical value and the relationship between technologies and teaching-learning processes. Skills acquired with present and emerging digital technologies will be acquired. In particular, skills will be gained for using technologies to produce digital documents and manage technological platforms.

COM/280 - DATA MINING AND KNOWLEDGE DISCOVERY

Data Mining and Knowledge Discovery is a course that focuses on extracting meaningful patterns and insights from large datasets. Students will learn about the principles, algorithms, and techniques used in data mining and knowledge discovery processes.

The course covers topics such as data preprocessing, association rule mining, classification, clustering, and anomaly detection. Students will gain hands-on experience with data mining tools and software, and they will learn how to apply these techniques to real-world datasets.

Through practical assignments and projects, students will learn how to analyze and interpret patterns, discover hidden knowledge, and make informed decisions based on the extracted insights.

By the end of the course, students will have the skills to effectively mine and analyze data, uncover valuable knowledge, and leverage it to solve complex problems in various domains, including business, healthcare, and social sciences.

COM/281 - DATA MANAGEMENT AND WAREHOUSING

Data Management and Warehousing is a course that explores the principles and techniques for organizing and managing large volumes of data. Students will learn about database design, data integration, and data quality assurance. Through hands-on exercises, students will gain practical experience with database management systems.

By the end of the course, students will have the skills to design and manage databases effectively and make informed decisions for data storage and retrieval in different organizational settings.

COM/282 - BUSINESS INTELLIGENCE

Business Intelligence is a course that focuses on leveraging data and analytics to drive informed decision-making in business organizations. Students will learn about the tools, techniques, and methodologies used in business intelligence, including data warehousing, data visualization, data mining, and reporting.

The course covers topics such as data extraction, transformation, and loading (ETL), dimensional modeling, and dashboard development. Students will gain hands-on experience with business intelligence tools and software.

By the end of the course, students will have the skills to collect, analyze, and interpret data to generate valuable insights for strategic planning, performance measurement, and competitive advantage in the business world.

COM/283 - PREDICTIVE ANALYTICS

Predictive Analytics is a course that focuses on the application of statistical techniques, data mining, and machine learning algorithms to predict future outcomes and make data-driven decisions. The course explores the theory and practice of predictive modeling, emphasizing the understanding and use of advanced analytical tools and methodologies. Students will learn how to collect and preprocess data, select appropriate predictive models, and evaluate model performance. Topics covered include regression analysis, classification algorithms, time series forecasting, and ensemble methods. Through hands-on exercises and real-world case studies, students will gain practical experience in using predictive analytics to solve business problems, optimize processes, and improve decision-making in various industries. By the end of the course, students will have the skills to apply predictive analytics techniques effectively and contribute to data-driven decision-making in their professional careers.

COM/284 - DATA VISUALIZATION

Data Visualization is a course that focuses on the effective representation of data through visual means. Students learn techniques and tools to transform complex datasets into visually compelling and informative graphics, charts, and interactive visualizations. The course covers principles of visual perception, data storytelling, and the use of visualization tools such as Tableau or D3.js. Through hands-on projects, students develop the skills to create visually appealing and impactful visualizations that facilitate data exploration, analysis, and communication.

COM/285 - STATISTICAL METHODS FOR DATA SCIENCE

Statistical Methods for Data Science is a course that introduces students to key statistical techniques and methods used in the field of data science. The course covers foundational concepts such as probability, hypothesis testing, and regression analysis. Students learn how to apply statistical models and methods to analyze and interpret data, make informed decisions, and draw meaningful conclusions. Topics covered may include exploratory data analysis, sampling techniques, statistical inference, linear regression, and hypothesis testing. Through practical assignments and projects, students gain hands-on experience in applying statistical techniques to real-world data sets, equipping them with the necessary skills for data-driven decision-making in various domains.

COM/286 - DATA ETHICS AND PRIVACY

Data Ethics and Privacy is a course that focuses on the ethical and privacy considerations surrounding data collection, usage, and sharing in various contexts. The course explores the ethical challenges and societal implications that arise from the increasing availability and utilization of data in today's digital age. Students learn about the ethical frameworks, principles, and legal regulations governing data privacy and protection. They examine case studies and real-world scenarios to understand the ethical dilemmas and potential risks associated with data handling, including issues of consent, data anonymization, data breaches, and algorithmic bias. The course also delves into the ethical responsibilities of data professionals and the importance of incorporating ethical considerations into the design and implementation of data-driven systems. The course aims to equip students with the knowledge and skills to make informed decisions and uphold ethical standards in data-related practices and decision-making processes.

COM/287 - TEXT ANALYTICS

Text Analytics is a course that focuses on the analysis of textual data using computational methods and techniques. In this course, students learn how to extract meaningful insights and knowledge from large volumes of text data, such as articles, social media posts, customer reviews, and documents. The course covers various aspects of text analytics, including text preprocessing, text classification, sentiment analysis, topic modeling, and information extraction. Students gain hands-on experience with popular text analytics tools and libraries and learn how to apply natural language processing (NLP) techniques to handle challenges such as text cleaning, tokenization, and feature extraction. Through practical exercises and projects, students develop the skills to analyze and interpret textual data, uncover patterns and trends, and derive actionable insights for applications in fields such as marketing, customer feedback analysis, social media mining, and content recommendation systems.

COM/288 - TIME SERIES ANALYSIS

Time Series Analysis is a course that focuses on the principles, methods, and techniques used to analyze and forecast time-dependent data. Students will learn about the characteristics of time series data, including trends, seasonality, and dependencies. The course covers topics such as time series modeling, data decomposition, autocorrelation analysis, and forecasting methods. Students will gain practical experience in analyzing and predicting time series data through hands-on projects and statistical software applications. They will learn how to identify patterns, model temporal dependencies, and apply appropriate forecasting techniques. Through case studies and real-world examples, students will understand the applications of time series analysis in various fields, such as finance, economics, and environmental sciences. By the end of the course, students will have the skills to effectively analyze time series data, make accurate predictions, and contribute to decision-making processes that rely on understanding and forecasting time-dependent phenomena.

COM/289 - MULTIVARIATE ANALYSIS
Multivariate Analysis is a course that explores the statistical methods and techniques used to analyze and interpret data with multiple variables simultaneously. Students will learn about the principles and applications of multivariate data analysis, including exploratory data analysis, dimensionality reduction, clustering, and classification. The course covers topics such as principal component analysis, factor analysis, discriminant analysis, and multivariate regression. Students will gain practical experience in using statistical software and programming languages to perform multivariate analysis on real-world datasets. They will learn how to identify patterns, relationships, and dependencies among variables and make meaningful interpretations. Through case studies and practical exercises, students will understand the applications of multivariate analysis in various fields, such as social sciences, marketing, and environmental studies. By the end of the course, students will have the skills to effectively analyze multivariate data, uncover insights, and make informed decisions based on complex datasets.

COM/290 - OPERATING SYSTEMS
Operating Systems is a course that explores the key concepts and functionalities of computer operating systems. Students will learn about process management, memory management, file systems, and device management. Through practical assignments, students will gain hands-on experience and develop skills in designing and troubleshooting operating systems. By the end of the course, students will have a strong understanding of operating systems principles and practical knowledge for software development.

COM/291 - CYBERSECURITY FUNDAMENTALS
Cybersecurity Fundamentals is a course that introduces the basics of cybersecurity. Students will learn about information security, common threats, network security, cryptography, and incident response. Through hands-on exercises, students will gain practical skills in securing computer systems and networks. By the end of the course, students will have a strong foundation in cybersecurity principles and be prepared to mitigate risks and protect against cyber threats.

COM/292 - DIGITAL FORENSICS
Digital Forensics is a course that focuses on investigating and analyzing digital evidence in cybercrime cases. Students will learn about evidence acquisition, preservation, and analysis using forensic tools and techniques. Through hands-on exercises, students will gain practical experience in conducting digital forensic investigations and presenting findings. By the end of the course, students will have the skills to perform digital forensic analysis and contribute to cybercrime investigations.

COM/293 - INTRUSION DETECTION AND PREVENTION
Intrusion Detection and Prevention is a course that focuses on protecting computer systems and networks from unauthorized access and attacks. Students will learn about the various intrusion detection and prevention techniques, tools, and methodologies used in cybersecurity. The course covers topics such as network security, system vulnerabilities, attack signatures, and anomaly detection. Students will gain hands-on experience in deploying intrusion detection and prevention systems, configuring firewalls, and analyzing network traffic for potential threats. Through practical exercises and simulations, students will learn how to identify and respond to security incidents effectively. By the end of the course, students will have the skills to detect, prevent, and mitigate potential intrusions, enhancing the security posture of computer systems and networks in different organizational settings.

COM/294 - PENETRATION TESTING AND ETHICAL HACKING
Penetration Testing and Ethical Hacking is a course that teaches students how to identify and address vulnerabilities in computer systems and networks. Students will learn ethical hacking techniques and gain hands-on experience in conducting security assessments. By the end of the course, students will have the skills to assess and improve the security of systems and networks to prevent cyber threats.

COM/295 - CRYPTOGRAPHY AND NETWORK SECURITY
Cryptography and Network Security is a course that explores the principles, algorithms, and protocols used to secure data transmission and protect information in computer networks. Students will learn about various cryptographic techniques such as symmetric and asymmetric encryption, digital signatures, hash functions, and key management. The course covers topics such as network security models, authentication protocols, secure communication channels, and security mechanisms for different network layers. Students will gain practical knowledge in implementing cryptographic algorithms, configuring secure network protocols, and analyzing security vulnerabilities. Through hands-on exercises and real-world examples, students will understand the importance of cryptography and network security in protecting sensitive information from unauthorized access and attacks. By the end of the course, students will have the skills to design and implement secure communication systems and mitigate security risks in network environments.

COM/296 - SECURITY MANAGEMENT AND RISK ASSESSMENT
Security Management and Risk Assessment is a course that focuses on the principles, strategies, and practices involved in managing security risks within organizations. Students will learn about the concepts of security

management, including risk assessment, threat analysis, vulnerability assessment, and risk mitigation. The course covers topics such as security policies and procedures, security planning and implementation, incident response, and disaster recovery. Students will gain practical knowledge in conducting security assessments, identifying vulnerabilities, and developing risk management strategies. Through case studies and real-world examples, students will understand the importance of proactive security measures and effective risk management in safeguarding assets, information, and operations. By the end of the course, students will have the skills to assess security risks, develop risk management plans, implement security controls, and respond to security incidents to protect organizations from potential threats.

COM/297 - ADVANCED NETWORK SECURITY

Advanced Network Security is a course that delves into the advanced concepts, techniques, and practices of securing computer networks against various cyber threats. Students will learn about the latest trends and challenges in network security, including advanced persistent threats, malware analysis, and intrusion detection systems. The course covers topics such as secure network architectures, network monitoring, encryption protocols, secure wireless networks, and virtual private networks (VPNs). Students will gain hands-on experience in implementing advanced security measures, such as firewalls, intrusion prevention systems, and secure remote access. Through practical exercises and real-world simulations, students will learn how to identify network vulnerabilities, mitigate risks, and respond to network security incidents. By the end of the course, students will have the skills to design, implement, and manage advanced network security solutions, ensuring the confidentiality, integrity, and availability of critical network resources.

COM/298 - TECHNOLOGIES FOR THE PRODUCTION OF MULTIMEDIA CONTENT FOR EDUCATION

It is a course that focuses on equipping students with the skills and knowledge necessary to create compelling multimedia content for educational purposes. Students will learn about various technologies, tools, and techniques used in multimedia production, including audio and video editing, animation, graphic design, and interactive multimedia. Through hands-on projects, students will develop proficiency in utilizing these technologies to design engaging educational materials. The course also emphasizes the importance of pedagogy and instructional design principles in creating effective multimedia content. By the end of the course, students will have the expertise to produce high-quality multimedia content that enhances the learning experience in educational.

COM/300 - DATABASES AND DATA MANAGEMENT

Databases and Data Management is a course that focuses on the principles, design, and implementation of databases for efficient data storage, retrieval, and management. Students will learn about the fundamentals of database management systems (DBMS), including data modeling, relational database design, SQL programming, and database administration. The course covers topics such as data normalization, query optimization, transaction management, and data security. Students will gain practical experience in creating and managing databases through hands-on exercises and projects. They will learn how to design database schemas, write complex queries, and ensure data integrity and security. By the end of the course, students will have the skills to develop and maintain robust databases, effectively organize and manipulate data, and apply best practices in data management to support business needs and decision-making processes.

COM/320 - PROGRAMMING III

The course has specific educational objectives teaching distributed and concurrent programming fundamental concepts and methodologies. Efficient and scalable software development presupposes the ability to program distributed and contemporary applications. Thus, the course aims to provide the basic knowledge necessary for programming disseminated and modern object-oriented applications using a high-level language (Java) through (i) network data exchange and (ii) programming parallel threads, i.e., "light" processes that can operate on one or more processors within the same main application. Another critical course focus is the event-driven programming technique for creating graphical user interfaces, the basis of all Windows-based desktop and Web applications.

COM/330 - ARCHITECTURE OF COMPUTERS

The course aims to provide the student with knowledge of techniques for encoding information within computers; knowledge of the hardware organization of computers through the notion of virtual machine hierarchies; understanding of the functions performed by hardware and used by operating systems; and the basics for understanding the process of translation from high-level languages to machine language. The teaching is aimed at programming using an assembly language composed of instructions from the RISC-V standard.

COM/340 - DEVELOPMENT OF SOFTWARE APPLICATIONS

Development of Software Applications is a course that focuses on the process of designing, developing, and deploying software applications. Students will learn about software development methodologies, programming languages, and tools used in the development lifecycle. The course covers topics such as requirements gathering, software design principles, coding practices, testing, and software maintenance. Students will gain practical experience in developing software applications through hands-on projects and assignments. They will learn how to analyze user needs, design software architectures, implement functionalities, and debug and test their applications. By the end of the course,

students will have the skills to effectively develop and deliver software applications that meet user requirements, follow industry best practices, and adhere to software engineering principles.

COM/360 - FREQUENCY AND SPECTRAL ALLOCATION: WIRELESS SYSTEMS

Frequency and Spectral Allocation: Wireless Systems is a course that explores the principles and techniques of frequency management and spectral allocation in wireless communication systems. Students will learn about the allocation of radio frequencies for different wireless applications and the regulatory frameworks governing wireless spectrum usage. The course covers topics such as frequency bands, interference mitigation, spectrum sharing, and wireless standards. Students will gain practical knowledge in analyzing and optimizing frequency allocation for efficient wireless communication. Through simulations and case studies, students will understand the challenges and considerations involved in designing and deploying wireless systems with limited spectrum resources. By the end of the course, students will have the skills to design and manage wireless networks, ensuring optimal use of available frequency bands and mitigating interference to achieve reliable and high-performance wireless communication.

COM/390 - HUMAN-COMPUTER INTERACTION

Human-Computer Interaction" is a course that explores the design and evaluation of interactive systems to enhance user experience. Students will learn about the principles, theories, and methodologies of HCI, including user-centered design, usability testing, and interaction design patterns. The course covers topics such as user research, prototyping, user interface design, and user feedback analysis. Students will gain practical experience in designing and evaluating interactive systems through hands-on projects and usability testing sessions. They will learn how to understand user needs, create intuitive and engaging interfaces, and assess the usability and effectiveness of their designs. By the end of the course, students will have the skills to design user-friendly and efficient interactive systems that meet user requirements and provide a positive user experience across various platforms and devices.

COM/401 - INFORMATION TECHNOLOGY IN HEALTHCARE

Information Technology in Healthcare is a course that explores the role and impact of technology in the healthcare industry. Students will learn about the various applications of information technology (IT) in healthcare, including electronic health records (EHRs), telemedicine, healthcare data analytics, and health information exchange (HIE).

The course covers topics such as IT infrastructure in healthcare, healthcare information systems, privacy and security considerations, and regulatory requirements. Students will gain practical knowledge in utilizing healthcare software, managing health data, and implementing IT solutions to improve patient care, operational efficiency, and decision-making in healthcare settings.

Through case studies and real-world examples, students will understand the challenges and opportunities associated with integrating IT into healthcare systems. By the end of the course, students will have the skills to effectively leverage information technology to enhance healthcare delivery, ensure data privacy and security, and contribute to the digital transformation of the healthcare industry.

COM/402 - IT SERVICE MANAGEMENT

IT Service Management is a course that focuses on the principles, practices, and frameworks used to effectively manage IT services within organizations. Students will learn about the key concepts of IT service management, including service strategy, service design, service transition, service operation, and continual service improvement. The course covers topics such as IT service delivery processes, service level agreements, incident management, change management, and IT service desk operations. Students will gain practical knowledge in implementing IT service management best practices, utilizing IT service management frameworks such as ITIL (Information Technology Infrastructure Library), and managing IT service projects. Through case studies and real-world examples, students will understand the importance of aligning IT services with organizational goals, improving service quality, and ensuring customer satisfaction. By the end of the course, students will have the skills to effectively plan, implement, and manage IT services, optimize service delivery processes, and contribute to the overall IT service management strategy within organizations.

COM/403 - GEOGRAPHIC INFORMATION SYSTEMS

Geographic Information Systems is a course that explores the principles and applications of spatial data analysis and management. Students will learn about the fundamental concepts of GIS, including spatial data representation, data acquisition, spatial analysis, and visualization. The course covers topics such as spatial databases, spatial data models, geospatial analysis techniques, and cartographic design principles. Students will gain practical experience in using GIS software and tools to analyze and visualize spatial data for various applications, such as environmental planning, urban management, and resource allocation. Through hands-on exercises and projects, students will learn how to collect, integrate, manipulate, and analyze geospatial data to support decision-making processes. By the end of the course, students will have the skills to effectively use GIS technology, interpret spatial patterns, and create informative maps and visualizations for a wide range of geographic applications.

COM/404 - VIRTUAL REALITY AND AUGMENTED REALITY

Virtual Reality and Augmented Reality is a course that explores the principles, technologies, and applications of

immersive virtual reality (VR) and augmented reality (AR) experiences. Students will learn about the fundamentals of VR and AR, including the underlying technologies, hardware devices, and software development tools. The course covers topics such as 3D modeling, spatial tracking, user interaction, and immersive content creation. Students will gain practical experience in designing and developing VR and AR applications through hands-on projects and simulations. They will learn how to create realistic virtual environments, integrate virtual objects into real-world settings, and enhance user experiences through interactive elements. Through case studies and real-world examples, students will understand the diverse applications of VR and AR in industries such as gaming, education, healthcare, and architecture. By the end of the course, students will have the skills to design and develop immersive VR and AR experiences, leverage emerging technologies, and contribute to the advancement of virtual and augmented reality applications.

COM/405 - EMERGING TECHNOLOGIES

Emerging Technologies is a course that explores the latest advancements in technology. Students will learn about cutting-edge technologies such as AI, blockchain, VR/AR, and IoT. Through case studies, students will gain insights into the applications and impact of these technologies. By the end of the course, students will have a solid understanding of emerging technologies and their potential implications in various industries.

COM/406 - KNOWLEDGE MANAGEMENT

Knowledge Management is a course that focuses on the systematic and strategic management of organizational knowledge to enhance decision-making, innovation, and collaboration. Students will learn about the principles, processes, and tools used to create, capture, store, and share knowledge within an organization. The course covers topics such as knowledge identification, knowledge representation, knowledge transfer, and knowledge retention. Students will gain practical knowledge in designing knowledge management systems, implementing knowledge sharing platforms, and facilitating knowledge exchange among employees. Through case studies and practical projects, students will learn how to develop knowledge management strategies, foster a knowledge-sharing culture, and leverage organizational knowledge to drive business success. By the end of the course, students will have the skills to effectively manage and utilize knowledge assets, promote knowledge sharing and collaboration, and improve organizational performance through effective knowledge management practices.

COM/407 - INFORMATION TECHNOLOGY AUDITING AND ASSURANCE

Information Technology Auditing and Assurance is a course that focuses on the principles, methodologies, and practices involved in auditing and assuring the effectiveness and security of information technology systems within organizations. Students will learn about the concepts of IT auditing, including risk assessment, control evaluation, compliance, and governance frameworks. The course covers topics such as IT audit planning, data integrity, network security, privacy protection, and regulatory compliance. Students will gain practical knowledge in performing IT audits, assessing internal controls, and conducting vulnerability assessments. Through case studies and real-world examples, students will understand the importance of IT auditing and assurance in mitigating risks, ensuring data integrity, and safeguarding information assets. By the end of the course, students will have the skills to effectively audit IT systems, evaluate control environments, identify vulnerabilities, and provide recommendations to improve IT governance and security practices within organizations.

COM/410 - LEARNING ANALYTICS

Learning Analytics is a course that explores the use of data and analytics to improve learning and educational outcomes. Students will learn about the principles and techniques of collecting, analyzing, and interpreting data generated in educational settings. The course covers topics such as data visualization, predictive modeling, and educational data mining. Students will gain hands-on experience in using learning analytics tools and software to analyze student performance, engagement, and behavior patterns. Through case studies and practical projects, students will learn how to derive meaningful insights from educational data and use them to inform instructional design, personalized learning, and intervention strategies. By the end of the course, students will have the skills to apply learning analytics methods to enhance teaching and learning practices, support student success, and promote data-informed decision-making in educational contexts.

COM/420 - FORMAL METHODS IN COMPUTER SCIENCE

Formal Methods in Computer Science is a course that explores the principles, techniques, and applications of formal methods for the design, analysis, and verification of computer systems and software. Students will learn about mathematical foundations, formal languages, and logic-based formalisms used in formal methods. The course covers topics such as formal specifications, model checking, theorem proving, and program analysis. Students will gain practical experience in applying formal methods to verify the correctness, safety, and reliability of computer systems. They will learn how to formally specify system properties, model system behavior, and apply formal verification techniques to detect errors and ensure system correctness. Through case studies and practical exercises, students will understand the importance of formal methods in critical systems, such as safety-critical software, embedded systems, and cybersecurity. By the end of the course, students will have the skills to apply formal methods to design and verify computer systems, improve software quality, and contribute to the development of reliable and trustworthy computing

systems.

COM/445 - MULTIMEDIA DATABASE
Multimedia Database is a course that focuses on the principles, design, and management of databases that store and retrieve multimedia content such as images, audio, video, and other multimedia data types. The course covers various topics related to multimedia database systems, including data modeling, indexing and retrieval techniques, multimedia query processing, and storage management. Students learn how to represent and store multimedia data efficiently in databases, considering factors like data compression, indexing methods, and metadata management. They explore techniques for querying multimedia data, including similarity search, content-based retrieval, and context-based retrieval. By the end of the course, students acquire a comprehensive understanding of multimedia database concepts and techniques, enabling them to work with multimedia data in various domains, such as digital libraries, multimedia content management systems, and multimedia applications.

COM/450 - NETWORK PROTOCOLS AND ARCHITECTURE
Network Protocols and Architecture is a course that focuses on the principles, protocols, and architectural concepts of computer networks. Students will learn about the different layers of the network protocol stack, including the physical, data link, network, transport, and application layers. The course covers topics such as IP addressing, routing protocols, Ethernet, TCP/IP, and network security. Students will gain practical knowledge in configuring and troubleshooting network protocols and devices. Through hands-on exercises and simulations, students will understand the functionalities of various network protocols and their role in establishing reliable and efficient communication between devices and networks. By the end of the course, students will have the skills to design, implement, and manage network infrastructures, ensuring seamless connectivity and effective data transmission in diverse network environments.

COM/460 - NEURAL NETWORKS AND DEEP LEARNING
Neural Networks and Deep Learning is a course that explores the principles, architectures, and applications of neural networks and deep learning algorithms. Students will learn about the fundamentals of artificial neural networks, including feedforward networks, recurrent networks, and convolutional networks. The course covers topics such as activation functions, backpropagation, gradient descent, regularization techniques, and deep learning frameworks. Students will gain practical experience in implementing neural networks and deep learning models through hands-on projects and coding exercises. They will learn how to preprocess data, design network architectures, train models, and evaluate their performance. Through case studies and applications, students will understand the diverse applications of deep learning in areas such as computer vision, natural language processing, and pattern recognition. By the end of the course, students will have the skills to design and implement neural networks, apply deep learning techniques to solve complex problems, and contribute to advancements in artificial intelligence and machine learning.

COM/470 - COMPUTER NETWORK SECURITY
Computer Network Security is a course that focuses on the principles, technologies, and practices used to secure computer networks from unauthorized access, data breaches, and cyber threats. Students will learn about network security concepts, risk assessment, and defense mechanisms. The course covers topics such as network vulnerabilities, firewalls, intrusion detection systems, virtual private networks (VPNs), and secure protocols. Students will gain practical knowledge in implementing security measures, configuring network devices, and conducting security audits. Through hands-on exercises and case studies, students will learn how to analyze network traffic, detect and mitigate security incidents, and develop strategies to protect network infrastructure. By the end of the course, students will have the skills to design and implement robust network security solutions, safeguarding sensitive data and ensuring the integrity and confidentiality of network communications.

COM/495 - SENIOR PROJECT
The senior project may take many forms: it may be a group project to pursue an identifiable problem with a faculty sponsor or may involve choosing a topic for critical review.
Prerequisite: *90 Credits*

COM/500 - INTRODUCTION TO CYBERSECURITY
A wide range of concepts, challenges, and technologies that form the basis of cybersecurity are covered in this course. You will understand cybersecurity and its importance and explore the techniques and technologies used to achieve cybersecurity.

COM/505 - CYBERSECURITY POLICY
Learning techniques to defend against significant security attacks, introduction to symmetric essential encryption techniques.

COM/510 - CYBER THREAT INTELLIGENCE
Cyber Threat Intelligence is a course that explores the field of intelligence analysis and its application to cybersecurity. The course focuses on understanding, detecting, and mitigating cyber threats by leveraging intelligence methodologies and tools. Students learn how to collect, analyze, and interpret data related to cyber threats from various sources, such

as threat feeds, dark web monitoring, open-source intelligence, and security incident reports. The course covers topics including threat intelligence lifecycle, threat modeling, threat actors, attack vectors, and indicators of compromise (IOCs). Students also gain knowledge about different types of cyber threats, including malware, phishing, social engineering, and advanced persistent threats (APTs). By the end of the course, students acquire a solid understanding of the cyber threat landscape and the methodologies used to analyze and respond to cyber threats.

COM/515 - CYBERSECURITY ARCHITECTURE

Cybersecurity Architecture is a course that focuses on designing and implementing secure systems and networks. Students learn about different components of cybersecurity architecture, including network security, access controls, encryption, and intrusion detection systems. The course covers security principles, risk assessment, and the development of security policies and procedures. Students gain practical knowledge in designing secure architectures that protect against cyber threats and ensure the confidentiality, integrity, and availability of information. The course also explores emerging trends and technologies in cybersecurity architecture.

COM/517 - CLOUD SECURITY

Cloud Security is a course that focuses on the principles, techniques, and best practices for ensuring the security of cloud computing environments. Students will learn about the unique security challenges and risks associated with cloud computing, including data breaches, unauthorized access, and service disruptions.

The course covers topics such as cloud security architecture, identity and access management, data encryption, secure network configurations, and compliance in the cloud. Students will gain practical knowledge in implementing security measures specific to cloud environments, such as secure cloud deployments, cloud service provider selection, and incident response in the cloud.

Through case studies and real-world examples, students will understand the importance of securing data and applications in the cloud, mitigating cloud-related vulnerabilities, and adhering to industry standards and regulations.

By the end of the course, students will have the skills to effectively assess cloud security risks, design and implement secure cloud architectures, and manage security incidents in cloud computing environments.

COM/518 - MOBILE SECURITY

Mobile Security is a course that explores the principles, techniques, and practices used to secure mobile devices, applications, and data in today's interconnected world. Students will learn about the unique security challenges and vulnerabilities associated with mobile platforms, including smartphones, tablets, and wearables.

The course covers topics such as secure mobile device management, mobile application security, secure coding practices, secure communication protocols, and mobile threat detection and mitigation. Students will gain practical knowledge in implementing security measures specific to mobile environments, such as device encryption, authentication mechanisms, app sandboxing, and mobile data protection.

Through case studies and real-world examples, students will understand the importance of protecting sensitive information, preventing unauthorized access, and safeguarding against mobile threats, such as malware, data leakage, and device theft.

By the end of the course, students will have the skills to effectively assess mobile security risks, implement robust security controls, and develop strategies to enhance the overall security posture of mobile devices and applications.

COM/519 - WIRELESS SECURITY

Wireless Security is a course that explores the principles, techniques, and practices used to secure wireless communication networks. Students will learn about the security challenges and vulnerabilities associated with wireless technologies, such as Wi-Fi, Bluetooth, and cellular networks. The course covers topics such as wireless network architecture, encryption protocols, authentication mechanisms, and intrusion detection and prevention systems.

Students will gain practical knowledge in implementing security measures specific to wireless networks, including secure configuration, access control, and encryption algorithms.

Through case studies and real-world examples, students will understand the importance of protecting wireless networks from unauthorized access, eavesdropping, and data breaches.

By the end of the course, students will have the skills to assess wireless security risks, design and implement secure wireless networks, and mitigate potential threats to ensure the confidentiality, integrity, and availability of wireless communications.

COM/520 - FUNDAMENTAL SECURITY MANAGEMENT AND GOVERNANCE

This course deepens my understanding and appreciation of the need for effective security management. Different approaches to leadership in practice will be covered, including security standards and the critical importance of a risk-based approach.

By the end of the course, the student will have understood the essential components of practical cybersecurity management, including the impact of laws and regulations, the importance of auditing, and the critical role of people in achieving cybersecurity. Failure cases will be examined to understand the importance of effective security management.

COM/521 - INTRODUCTION TO ROBOTICS
This course provides an overview of the most critical issues related to modern robotics, highlighting the main problems that need to be addressed to make robots function appropriately in the environment.
Specifically, the course will cover the following topics: taxonomy of different types of robots, physical modeling (direct and inverse kinematics), model simulation, sensing, and actuation solutions for perception and action, and motion planning. The course will combine simulation models and laboratory experiences to consolidate the knowledge conveyed during the theoretical lectures.

COM/522 - COMPUTER VISION
The course aims to provide the student with an in-depth overview of the methods of analyzing and managing multimedia data. Starting from the basics of image and video processing, the course will focus on the problems of motion modeling and detection, motion tracking, and object recognition by using monocular and multi-view systems.

COM/523 - ADVANCED COMPUTER VISION
The course aims to provide the students with the knowledge necessary to deal with complex problems in computer vision. In particular, the course will give the students theoretical and practical notions about the main methods and algorithms for analyzing visual data based on neural networks and deep learning.

COM/524 - TRENDS AND APPLICATIONS OF COMPUTER VISION
The course aims to make the students aware of the most recent developments in Computer Vision. To this end, the course's teachers and tutors will discuss and present the most relevant scientific papers, highlighting the theoretical foundations and practical implications through ad hoc laboratory experiences. The final exam will revolve around a scientific paper chosen in agreement with the teachers; the students will present the advantages and disadvantages of the technique shown in the form, touching on such issues as the replicability of the results and the datasets. The discussion will follow the pattern of a scientific peer review, and the exercise aims to deepen the students' scientific competencies and strengthen their soft skills simultaneously.

COM/525 - ARTIFICIAL INTELLIGENCE
The course aims to deepen knowledge of Artificial Intelligence with a focus on the capabilities of an intelligent agent to make inferences based on an explicit knowledge representation about the domain. Design skills complement methodological skills because the course involves testing reasoning methods based on the logic programming paradigm, developing an intelligent agent capable of exhibiting reactive and deliberative behaviors (using rule-based production environments), and testing tools for cognitive architectures.

COM/526 - ADVANCED COMPUTER VISION
Artificial Intelligence and Innovation is a course that explores the intersection of artificial intelligence (AI) and innovation, focusing on how AI technologies can drive transformative changes and foster innovation in various domains. Students will learn about the principles, techniques, and applications of AI, including machine learning, natural language processing, and computer vision.
The course covers topics such as AI-driven innovation processes, AI-powered problem-solving, and the ethical and societal implications of AI. Students will gain practical knowledge in applying AI techniques to real-world scenarios, identifying opportunities for AI-driven innovation, and developing AI-based solutions. Through case studies and hands-on projects, students will understand how AI can be leveraged to enhance existing products and services, create new business models, and address societal challenges. By the end of the course, students will have the skills to integrate AI technologies into innovation strategies, assess the impact of AI on various industries, and contribute to the development and deployment of AI-driven innovations.

COM/527 - ADVANCED TOPICS IN MACHINE LEARNING AND OPTIMIZATION
This course presents advanced topics on machine learning and optimization research and technology. It will cover some of the most promising directions of recent research. The course includes lab exercises and seminars on selected topics.

COM/528 - OPTIMIZATION TECHNIQUES
The course focuses on discussing optimization problems, particularly combinatorial optimization problems. It aims to familiarize students with optimization problems that frequently occur in practical applications, enabling them to recognize the problem's difficulty and providing them with the tools to solve such problems.

COM/530 - SIGNAL, IMAGE, AND VIDEO
The course provides essential competencies in digital signal processing, with particular attention to images and video sequences. Starting from the fundamentals of 1D signal analysis and processing, analog and numerical, in time and frequency domains, we then extend the concepts to the multi-dimensional case of signals in space. Then, we introduce the more critical approaches for image filtering and extracting image descriptors. These concepts are further extended to deal with motion pictures.
Finally, the image compression problem focuses on the most known image and video coding techniques and their standard implementations. The approach of the course is rather practical, with the explanation of theoretical concepts

followed by their translation into algorithmic terms.

COM/531 - DISTRIBUTED ROBOT PERCEPTION

Distributed Robot Perception explores the principles and algorithms for enabling multiple robots to perceive and understand their environment collaboratively.

Topics include distributed sensor fusion, localization, mapping, and object recognition. Students gain practical knowledge in implementing distributed perception algorithms and designing communication protocols. Through hands-on projects, they develop skills in coordinating robots for efficient perception.

The course addresses scalability and robustness considerations. By the end, students can design and implement distributed perception solutions for multi-robot systems.

COM/532 - OPTIMIZATION-BASED ROBOT CONTROL

This course focuses on the control of robotic systems, with particular attention to optimal numerical control and reinforcement learning. After reviewing the basic principles of robot modeling and numerical optimization, students will learn different control techniques, from the simplest and most well-known to the most recent and advanced. Methods will be studied in theory and then implemented in simulation (with Python) to gain practical experience. Applications will span industrial manipulators and legged, flying, and wheeled robots.

COM/533 - ROBOT PLANNING AND ITS APPLICATION

The course will delve into robotic deliberation, meaning the robots can receive/decide on a mission and refine it into an executable and detailed tactical plan that fulfills its goals. More often than not, the latter amounts to choosing a trajectory that needs to be followed, avoiding obstacles, and cooperating with humans and other robots. The student will receive a comprehensive introduction to the most crucial motion planning techniques and will refine their understanding through challenging laboratory experiences.

COM/535 - NATURAL LANGUAGE UNDERSTANDING

Natural Language Understanding is the fundamental component of artificial intelligence systems communicating with humans. Master in Artificial Intelligent Systems communicates directly with humans via the conversational interfaces of social robots. Master in Artificial Intelligence Systems may be able to read and comprehend vast amounts of human language data (speech, text, or multimedia) and make sense. In the first part of the course, we will provide the students the basic knowledge about the natural language structure from the lexicon to the document level, formal models for representing the lexicon, the sentence, and the discourse. We will present and provide the machine learning models to learn language structures from language corpora. In the last part of the course, we will describe use cases of Natural Language Understanding in Main in Artificial Intelligent Systems. Students will be trained to train simple natural language understanding models for different use cases.

COM/536 - BIO-INSPIRED ARTIFICIAL INTELLIGENCE

Bio-Inspired Artificial Intelligence explores how biological systems inspire the design of artificial intelligence algorithms. Topics include genetic algorithms, neural networks, and swarm optimization. Students gain practical knowledge in implementing bio-inspired AI algorithms and solving complex problems. Through projects and case studies, they understand the potential of bio-inspired approaches in optimization, pattern recognition, and decision-making. Ethical considerations and limitations are also discussed. By the end, students can design and apply bio-inspired AI solutions to advance research and practical applications.

COM/537 - INNOVATION AND ENTREPRENEURSHIP BASIC

The course will give the student fundamental knowledge of Microeconomy and business organization, particularly regarding the economy of information, networks, and innovation in information and communication technologies and information systems. Particular attention will be devoted to decision-making and management and the main factors affecting the decision of the stakeholders in companies, networks, and markets. These principles have primary importance both in the direction of companies and the definition of public policies for the regulation of markets.

COM/538 - SENSING AND RADAR TECHNOLOGIES

The course introduces 1. the fundamental technologies for radar and remote sensing data acquisition (multispectral, hyperspectral, synthetic aperture, and lidars) and 2—the properties of the related big data acquired by satellites, aircraft, and drones. Then it presents the essential techniques for automatically extracting semantic information, semantic segmentation, changes detection, and sensor data fusion. The addressed techniques leverage statistical methods, machine learning, and physical models.

COM/540 - ANALYSIS AND VISUALIZATION OF COMPLEX NETWORKS

This course introduces the main concepts, principles, and methodologies in the interdisciplinary field of Network Science, focusing on analytical techniques, modeling, and applications for the Web and Social-Media. Topics covered include the study of network structure, mathematical models of networks, topologies of standard networks, the structure of large graphs, community structures, and centrality measures. An essential part of the teaching is devoted to dynamic network processes, such as epidemics in contact networks and spreading ideas, opinions, innovations, and behaviors in social networks, distinguishing between simple and complex contagion. They will also cover the basic

principles of designing a data and information visualization system by learning to acquire, explore and analyze datasets using 'visual analytics techniques. Students will learn the primary hods for visualizing multivariate, temporal, textual, geospatial, hierarchical, and (especially) network and graph-based data. Finally, students will use tools such as GePhi, D3, Python, web and matplotlib, and many other tools to implement these techniques on existing datasets.

COM/541 - PERFORMANCE EVALUATION: SIMULATION AND MODELING

This course introduces the Performance Evaluation of Computing Systems and Telecommunication Networks. The course consists of two parts: the first deals with the most important analytical and numerical methods of analysis used for the study of models helpful in analyzing the behavior of traffic systems; the second introduces stochastic processes, and in particular Markov Chains, as tools for conducting a more in-depth study of the techniques discussed in the first part. The introductory level of the course does not allow for dealing with the study and modeling of natural systems. However, the preparation provided is sufficient to make any student capable of dealing with the study of actual cases knowing the analysis method to be followed and the potential of the available techniques. The language and examples used throughout the course are inspired by the problem of evaluating the performance of computational systems. However, the methodologies discussed have a much broader scope of application. The models discussed in this course are probabilistic representations in which various aspects of reality are expressed in network service stations in front of which queues may form due to congestion or synchronization phenomena. The study of the behavior of these queueing networks is addressed in this course by using analytical and numerical techniques (in more straightforward cases) and simulative methods in more complex ones.

COM/542 - BIO-INFORMATICS

Introduction to the main problems of biological data analysis and description of related algorithms used in bioinformatics. Introduction to the technologies that produce large masses of genomic (DNA) and transcriptomic (RNA) data.

COM/543 - NATURAL LANGUAGE TECHNOLOGIES

The course aims to provide the basics of modern natural language processing technologies. The course will be devoted to the introduction, and essential elements of automatic natural language processing, aspects of morphology, syntax, formal semantics, generation, and machine translation will be offered. The course will focus on lexical semantics, some paradigms of knowledge representation, notions of conceptual anchoring, and some resources and approaches for the conceptual model will be introduced; finally, statistical methods will be covered, and the concept of distributional semantics and related existing methodologies will be addressed. Semantic similarity and the theoretical basis for constructing meaning through syntactic-semantic compositions will be explored, with nods to the automatic construction of ontologies.

COM/544 - ANALYSIS AND PROCESSING OF DIGITAL SIGNALS

This course covers the fundamentals of the analysis and processing of digital signals. The course is devoted to educational objectives to provide theoretical and practical skills in numerical signal analysis and processing. To the study of theoretical and formal aspects and the use of numerical computational tools. Analysis and Processing of Digital Signals. This course covers the fundamentals of the analysis and processing of digital signals. The course is devoted to the educational objectives of providing theoretical and practical skills in numerical signal analysis and processing, the study of theoretical and formal aspects, and the use of numerical computational tools.

COM/555 - NATURAL LANGUAGE PROCESSING

Natural Language Processing is a course that explores the intersection of computer science and linguistics, focusing on the understanding and processing of human language by computers. Students learn about various techniques and algorithms used to analyze and manipulate natural language data, such as text classification, sentiment analysis, named entity recognition, and machine translation. The course covers the fundamentals of language modeling, syntax, semantics, and discourse analysis. Students also gain hands-on experience with popular tools and frameworks used in natural language processing, allowing them to develop practical skills in building applications that can understand and generate human language.

COM/575 - CONCEPTUAL MODELING FOR THE SEMANTIC WEB

Conceptual Modeling for the Semantic Web is a course that focuses on the principles and techniques of modeling information in the context of the Semantic Web. Students learn how to represent knowledge and information using formal ontologies and conceptual models. The course covers various topics such as RDF (Resource Description Framework), OWL (Web Ontology Language), and SPARQL (SPARQL Protocol and RDF Query Language). Students gain a deep understanding of the Semantic Web architecture and its components, including ontologies, knowledge graphs, and linked data. They also learn how to design and develop conceptual models that facilitate data integration, interoperability, and semantic reasoning on the web. Practical exercises and assignments allow students to apply their knowledge and skills to real-world scenarios and develop applications that leverage semantic web technologies.

COM/600 - APPLIED CRYPTOGRAPHY

This course explores the role of cryptography in supporting the security of everyday applications such as the Internet,

cell phones, wireless networks, and cryptocurrency. Understanding the functionality and purpose of the powerful cryptographic tools used today is then developed. How to choose which cryptographic tools to use in specific contexts is taught. Finally, the broader infrastructure surrounding cryptography and its impact on the overall security of the systems that use it will be explored.

COM/605 - NETWORK AND INFRASTRUCTURE SECURITY
This course delves into the basics of cybersecurity and enables you to develop an understanding of the critical technologies used in computer networks and infrastructure. These include operational technologies and critical national infrastructures-protocols, computer networks, data centers, and active technologies that are critical to the success of organizations and services on a local and international scale.

COM/610 - SOFTWARE AND APPLICATION SECURITY
This course introduces the principles of software and applications, including security and malicious software issues. Techniques used for secure software development, principles of fast programming, and common vulnerabilities introduced during software development will be covered. At the end of the course, broader considerations and research directions for software and application security will be discussed. Essential software and application security aspects will be examined through topical case studies like the web and cloud. This course is complementary to Computer Systems Security and Infrastructure Security.

COM/615 - CYBERSECURITY RESEARCH METHODS
The course's main objective is to provide students with the methodological and practical basis for applying network and computer security and management tools in scientific, business, and professional contexts. The fundamentals and tools necessary to address problems in a real-world context are provided. Management of systems and networks must consider internal policies and interoperability issues between different environments.

COM/620 - INDUSTRIAL CONTROL SYSTEMS SECURITY
Industrial Control Systems Security focuses on protecting critical infrastructure by addressing the security challenges and vulnerabilities of industrial control systems. Students learn about ICS architecture, threat assessment, and security frameworks. Practical knowledge includes implementing measures like intrusion detection, secure communication, and incident response. The course emphasizes the importance of safeguarding ICS against cyber threats to ensure operational continuity and the integrity of critical infrastructure. Students develop skills in risk assessment, security control implementation, and contributing to ICS protection in different sectors.

COM/621 - HUMAN-MACHINE DIALOGUE
Robots that can talk or chat with humans are becoming pervasive in many industry domains. MAIS systems using natural language can interact with humans and operate in command-and-control, information retrieval, or cooperative decision-support tasks. This course reviews the basic principles of human-computer interaction, conversation linguistics, discourse analysis, computational Dialogue Models, dialogue system architectures, and their evaluation. In the second part of the course, we provide methodologies for the design of Conversational Agents, data-driven training, design tools, and a project-based lab addressing real use cases.

COM/625 - ARTIFICIAL AND BIOLOGICAL NEURAL SYSTEMS
Artificial and Biological Neural Systems is a course that explores the principles, models, and applications of neural systems found in both artificial intelligence and biological organisms. Students will learn about the fundamental concepts of neural networks, including the structure and function of artificial neural networks and biological brains. The course covers topics such as neural computation, learning algorithms, deep learning architectures, and neural network applications in areas like image recognition and natural language processing. Students will gain practical knowledge in implementing neural network models and algorithms, analyzing neural data, and designing neural-inspired systems. Through case studies and real-world examples, students will understand the potential of artificial and biological neural systems in solving complex problems and advancing various fields. By the end of the course, students will have the skills to develop and apply neural network models, evaluate their performance, and contribute to the advancements in artificial intelligence and neuroscience.

COM/630 - ARTIFICIAL INTELLIGENCE AND INNOVATION
Artificial and Biological Neural Systems is a course that explores the principles, models, and applications of neural systems found in both artificial intelligence and biological organisms. Students will learn about the fundamental concepts of neural networks, including the structure and function of artificial neural networks and biological brains.
The course covers topics such as neural computation, learning algorithms, deep learning architectures, and neural network applications in areas like image recognition and natural language processing. Students will gain practical knowledge in implementing neural network models and algorithms, analyzing neural data, and designing neural-inspired systems. Through case studies and real-world examples, students will understand the potential of artificial and biological neural systems in solving complex problems and advancing various fields. By the end of the course, students will have the skills to develop and apply neural network models, evaluate their performance, and contribute to the advancements in artificial intelligence and neuroscience.

COM/635 - ETHICS, SOCIETY, AND PRIVACY
Ethics, Society, and Privacy" is a course that explores the ethical implications and societal impact of technology, particularly in the context of privacy. The course delves into the ethical considerations and challenges that arise from the increasing use of technology in various domains. Students examine ethical frameworks, principles, and theories to critically analyze the ethical implications of emerging technologies such as artificial intelligence, big data, and internet surveillance. The course also addresses social issues related to technology, including the digital divide, algorithmic bias, and the impact on individuals, communities, and society as a whole.
Through discussions, case studies, and debates, students develop a deeper understanding of the ethical considerations, societal implications, and privacy challenges posed by technology, enabling them to make informed decisions and contribute to responsible and ethical practices in the field.

COM/690 - MASTER THESIS or CAPSTONE PROJECT
Under the approval and guidance of a faculty member, students will prepare a thesis or a project report.
Prerequisite: *30 Credits*

13.4.2 MATHEMATICS

MAT/100 - ALGEBRA
This beginning-level algebra course is designed to help students acquire fundamental introductory algebra knowledge. Students will learn several skills, such as simplifying arithmetic and algebraic expressions (exponential expressions, polynomials, rational expressions, and radical expressions), solving equations and inequalities, including linear and quadratic equations, and graphing and analyzing linear equations.

MAT/110 - FINITE MATHEMATICS
This course explores the main concepts of finite mathematics, including trigonometric functions, mathematic functions, the function concept, polynomials, exponentials, logarithms, and mathematical induction.

MAT/120 - MODERN MATHEMATICS
This course will prepare students to be competent members of society by using major mathematical concepts and skills related to the number system, including actual, natural, integer, and rational numbers, the Four arithmetic operations, algebra processes, probability and statistics, and data analysis. Explorations focus on representing, analyzing, and generalizing patterns and the chances of past and future events and asking and answering critical questions about our world through algebra, probability, and data analysis.

MAT/130 - FUNDAMENTALS OF PRE-CALCULUS
A discussion of various mathematical topics and geometry: matrices, lines, planes, vectors, algebraic systems, equations, and one or more variable functions with their graphic representations. Calculations applied to scientific measurements will be emphasized.

MAT/140 - CALCULUS I
Explores essential topics such as the meaning, computation, and applications of the derivative, the definite integral, and the fundamental theorem of calculus.

MAT/150 - FOUNDATION OF PROBABILITY AND STATISTICS
The course fits into the subject area of mathematics known as probability, and statistics. It has the dual objective of providing the student with knowledge and understanding of phenomena of a random nature and related methodological and analytical tools that support subsequent courses but also have intrinsic value. Introduction to risk and probability provides analytical and modeling tools for dealing with random events. Introduction to statistics provides methodological tools for coping with arbitrary detectable quantities.

MAT/190 - MATRIX CALCULUS AND OPERATIONAL RESEARCH
The course aims to give students general notions of matrix calculus, algebra, geometry, and more specific operations research ideas. Matric calculus is a fundamental tool for scientific computing. Operations research studies models and methods based on the techniques introduced for the optimal use of scarce resources (in production, financial, etc.).

MAT/200 - LOGIC COMPUTER SCIENCE
The course aims to provide the student with an introduction to mathematical logic. It emphasizes its most relevant aspects for introductory computer science training, particularly an adequate familiarity with algebraic structures and their main demonstration techniques.

MAT/210 - STATISTICS AND MACHINE LEARNING
The course enables students to acquire fundamental theoretical concepts of Statistical and Machine Learning and related skills for advanced computational techniques using the tidy-models meta-package. The acquired theoretical knowledge and skills with tidy models help address typical practical problems in modern Statistical Learning and

Automatic.
MAT/240 - FINANCIAL MATHEMATICS In this course, the student acquires the essential skills to understand and operate business management processes through the mathematical-statistical tool and the fundamentals on which some management analysis tools rest.
MAT/250 - BASIC QUANTITATIVE METHODS This course on quantitative methods and Excel model building used extensively in analyzing business decisions, is offered for students who need to become more familiar with these concepts. Topics covered in the quantitative methods course include manipulating mathematical expressions, introducing statistics and probability, and building basic Excel models.
MAT/300 - DISCRETE MATHEMATICS The course aims to provide the student with an introduction to discrete mathematics, emphasizing those aspects most relevant to the basic training of a computer scientist, in particular adequate familiarity with algebraic structures, combinatorial calculus, and the main demonstration techniques.
MAT/320 - COMPUTABILITY AND COMPLEXITY The course introduces algorithms, what problems can be solved by an algorithm, and in what cases an algorithm requires resources inaccessible in practice by first dealing with computability theory from both mathematical perspectives--Turing machines, recursive functions--and perspectives related to programming languages. Then the various criteria for measuring available resources (time, memory) and complexity classes are discussed. Presentation of the problem P = NP.
MAT/330 - MATHEMATICAL ANALYSIS The course aims to present the basics of functions, graphs, and their transformations, introduce the derivative and definite integral concepts, and illustrate the use of analytical techniques in studying discrete phenomena. It provides knowledge related to the fundamental mathematical and methodological concepts and tools needed to describe, schematize and interpret the main aspects of the reality around us. In particular, the course aims to enhance students' comprehension skills and enable them to acquire a rigorous and analytical way of reasoning and tackling new problems. The significant presence of theorems, many with proof, is intended to strengthen the student's logical-deductive attitudes learned in the Discrete Mathematics and Logic course.
MAT/340 - ALGORITHMS AND DATA STRUCTURES Aims to introduce the fundamental concepts and techniques of algorithm analysis and design, which are the basis of software development. Students will learn to analyze algorithms' correctness and computational complexity, data structures for representing information, and problem-solving techniques by developing efficient algorithms. The teaching is supported by a laboratory, an integral part aimed at implementing and testing algorithms and data structures using an imperative, object-oriented language.

13.4.3 NATURAL SCIENCE

NSC/100 - BASIC LIFE SCIENCE This course emphasizes the fundamental principles of biology, including cell structure and function, genetics, ecology, evolution, and organism biology. Applications of these principles to societal issues, such as biodiversity conservation, overpopulation, global environmental changes, biotechnology, and human wellness and disease, are discussed.
NSC/110 - CURRENT ISSUES IN THE NATURAL SCIENCES This course provides a comprehensive overview of critical environmental issues. Through the exploration of these issues and the discussion of many different points of view, students will form a solid and valuable foundation of ecological knowledge. This will aid them in making crucial decisions that will shape the future of their society.
NSC/120 - THE EARTH AND ITS NATURAL ENVIRONMENT This laboratory-based course discusses selected topics from astronomy, atmospheric science, geology, geography, and oceanography, illustrating fundamental concepts and earth processes with a comprehensive overview of the interrelationships among these disciplines. It emphasizes the nature of science and the relationship between the earth sciences and society.
NSC/150 - INTRODUCTION TO WORLD GEOGRAPHY A survey of the world's countries' historical, economic, environmental, and organizational properties through geographic themes and concepts. Discussions will focus on the developed countries in North America, Europe, and Australia, as well as developing countries in Central and South America, the Middle East, and Africa.
NSC/200 - WORLD REGIONAL GEOGRAPHY A survey of the world's countries' historical, economic, environmental, and organizational qualities through geographic themes and concepts. The discussion will then lead to developed countries in North America, Europe, and Australia and

developing countries in Central and South America. Studies of the ex-Soviet Union, the Middle East, and Africa will also be included.
NSC/230 - NATURAL RESOURCES This course is a global discussion about natural resources and their management. Students will explore the social, scientific, and political implications of exploiting the environment, using and abusing renewable resources, and the various natural resources, including fossil fuels and their relations with the concept of sustainability.

13.4.4 PHYSICS

PHY/200 - PHYSICS This calculus-based course introduces the fundamental principles of 2 and 3-dimensional motion, Newton's laws, statics and dynamics of rigid body motion, waves and wave motion, work-energy relations, and the conservation laws of energy and momentum.
PHY/350 - PHYSICS FOR VIRTUAL REALITY APPLICATIONS The course aims to provide the student with simple applications of Physics in basic knowledge, from mechanics to optics, learning to recognize the underlying physical principles and laws and developing the equations needed to describe them.