

# Pre-professional Studies

## Division of Science and Mathematics

- **Minor: 42 credit hours**
- **Minor GPA required for graduation: 2.5**

**Description of Minor:** Students will take a variety of courses in biology, chemistry, physics, and mathematics. The curriculum is designed to cover content areas that are not only required for admission to post-baccalaureate programs, but also are known to be included in a variety of standardized exams such as the GRE, MCAT, DAT, and VCAT.

*Note: Students not planning on majoring in biology or chemistry, but still wishing to apply to a professional program after graduation, should consult Dr. Robb Van Putte.*

Specific requirements of the desired graduate or professional program should be considered when selecting courses.

### Student Learning Outcomes

*Students will:*

- Develop and execute a well-rounded plan that prepares them for graduate study.
- Develop the skills needed for career development in the sciences.
- Demonstrate successful problem-solving through the use of scientific reasoning, critical thinking, analysis, and synthesis of information.

**Preparation:** The pre-professional minor serves students who wish to pursue a post-baccalaureate degree in areas such as medicine, optometry, dentistry, pharmacy, physical therapy, physician's assistant, podiatry, chiropractic, and veterinary medicine.

PRE-PROFESSIONAL STUDIES		42 crs.
MINOR REQUIREMENTS		
BIO 110	PRINCIPLES OF CELLULAR AND MOLECULAR BIOLOGY	5
BIO 111	PRINCIPLES OF ORGANISMAL AND POPULATION BIOLOGY	5
CHE 105	GENERAL CHEMISTRY I	4
CHE 106	GENERAL CHEMISTRY II	4
CHE 205	ORGANIC CHEMISTRY I	4
CHE 206	ORGANIC CHEMISTRY II	4
CHE 303	PRINCIPLES OF BIOCHEMISTRY	4
MTH 210	CALCULUS I	4
PHY 211	GENERAL PHYSICS: MECHANIC, HEAT, SOUND	4
PHY 212	GENERAL PHYSICS: ELECTRICITY, MAGNETISM, OPTICS	4

## Business Administration (BUS)

<p><b>BUS 101</b> <span style="float: right;"><b>1</b></span>  <b>EXCEL I</b>            An introductory course in Excel. Topics covered: cells and data input, formatting, Excel mathematics, functions, graphs, and filters. Each semester. Same as MTH 101.</p> <p><b>BUS 102</b> <span style="float: right;"><b>1</b></span>  <b>EXCEL II</b>            An advanced course in Excel. Topics covered: intermediate and advanced level functions, names and comments, pivot tables, advanced conditional formatting filters, and matrix functions. Each semester. Same as MTH 102.</p> <p><b>BUS 303</b> <span style="float: right;"><b>3</b></span>  <b>BUSINESS LAW I</b>            An introduction to law including its foundations, torts, and topics relevant to business. Most of the course is spent studying modern contract law and its effect on business practice.</p> <p><b>BUS 304</b> <span style="float: right;"><b>3</b></span>  <b>BUSINESS LAW II</b>            An examination of the law related to accountant's legal liability; negotiable instruments and banking; principal-agent relationship, employment, proprietorship and partnerships; and corporate formation, governance, and LLCs.</p> <p><b>BUS 305</b> <span style="float: right;"><b>3</b></span>  <b>LEGAL ASPECTS OF SPORT MANAGEMENT</b>            An examination of the law related to practices of sport management. Examples of topics to be included are agency, contracts, antitrust, labor, torts, workers' compensation, and intellectual property. Prerequisite or concurrent enrollment: SPM 320.</p> <p><b>BUS 310</b> <span style="float: right;"><b>3</b></span>  <b>QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS</b>            A course designed to provide the student with the quantitative tools necessary to make effective business decisions. Areas of study will include statistical and operations research techniques for decision making and predictive modeling. Prerequisite: MTH 170.</p> <p><b>BUS 324</b> <span style="float: right;"><b>3</b></span>  <b>BUSINESS ETHICS AND CORPORATE SOCIAL RESPONSIBILITY (W)</b>            This course addresses the importance of ethical considerations in business decisions. Topics include schools of ethical thought, the impact of competing stakeholder groups, and the creation of an ethics enforcement systems. Students will refine their personal ethical standards and learn to apply ethical decision models to the resolution of business dilemmas. Prerequisite: MGT 204, MKT 205, or instructor consent.</p>	<p><b>BUS 330</b> <span style="float: right;"><b>3</b></span>  <b>PROJECT MANAGEMENT</b>            This course develops the competencies and skills for planning and controlling projects and understanding interpersonal issues that drive successful project outcomes. Focusing on the introduction of new products and processes, students will examine the project management life cycle, define project parameters, identify and analyze matrix management challenges, gain effective project management tools and techniques, and understand the role of a project manager.</p> <p><b>BUS 350</b> <span style="float: right;"><b>3</b></span>  <b>BASIC PROGRAMMING FOR BUSINESS AND CYBER DEFENSE</b>            This course develops the awareness and skills associated with programming languages used by businesses and industries to automate cybersecurity and business processes. The knowledge learned in this course will prepare students to understand how novel programming languages and low code software development are used in business to automate manual processes to provide secure real-time results with limited human intervention. Students will gain a basic understanding of the use of Python, Bash, Power Shell, and Robot Process Automation.</p> <p><b>BUS 380-389</b> <span style="float: right;"><b>1-3</b></span>  <b>TOPICS IN BUSINESS ADMINISTRATION</b></p> <p><b>BUS 410</b> <span style="float: right;"><b>3</b></span>  <b>MANAGEMENT INFORMATION SYSTEMS</b>            Provides an overview of management information systems. MIS explores the structure of information systems needed to support routine processes and major organizational functions, and to make informed management decisions. It emphasizes the digital integration of the firm through enterprise applications, i.e., supply chain management, customer relations, enterprise systems, and the development of knowledge. Prerequisite: MGT 204, BUS 350, CSI 120 or CSI 132 or equivalent.</p> <p><b>BUS 450</b> <span style="float: right;"><b>3</b></span>  <b>BUSINESS STRATEGY AND POLICY</b>            A capstone course designed to further develop the business student's decision making ability through the use of case studies, exercises, and simulations. Students are asked to identify problems, develop alternative solutions, and present the results. Prerequisites: Completion of the Business Core and senior standing or instructor consent.</p> <p><b>BUS 470</b> <span style="float: right;"><b>3-8</b></span>  <b>INTERNSHIP IN BUSINESS ADMINISTRATION</b></p> <p><b>BUS 480</b> <span style="float: right;"><b>1-4</b></span>  <b>INDEPENDENT STUDY IN BUSINESS ADMINISTRATION</b></p>
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