

4620. Human Development – Conception Through Childhood. 3 hours. Basic embryology, human reproduction, child development including both physiological and cognitive from the neonatal period through the teenage years. Prerequisite(s): 8 hours of biological sciences and junior standing or consent of department. May not be repeated at the graduate level as BIOL 5620.

4630. Human Teratology. 3 hours. Principles of teratology and embryology, including study strategies, reproduction toxicants, drugs and lactation, risk assessment, and known human teratogenic agents. Prerequisite(s): 8 hours of biological sciences and junior standing or consent of department. May not be repeated at the graduate level as BIOL 5630.

4650. Environmental Science Field Course. 6 hours. (3;8) Advanced field course primarily emphasizing the biological, ecological, natural history and philosophical attributes of various habitats or ecoregions. Topics and field experience may vary from desert river systems to alpine limnology to coastal estuaries. Prerequisite(s): junior standing and consent of department. May be repeated as topics vary. The same topic may not be repeated at the graduate level as BIOL 5650 or 5670.

4700. Procedures and Materials for Science Instruction. 3 hours. (2;4) Problems, techniques and procedures for classroom and laboratory experiences based on current science education research. Recommended for students who are obtaining secondary teacher certification in a science field. Field experience in the public schools is a required component. Prerequisite(s): 18 hours of biology, completion of freshman and sophomore science courses required for certification, and consent of department. Does not count as an elective toward a major or minor in biology except for students seeking certification. May not be repeated at the graduate level as BIOL 5700. (Same as CHEM 4700 and PHYS 4700.)

4720. Sediment Toxicology. 3 hours. Mechanisms of contaminant transport and fate in freshwater marine sediments and pollutant effects at the individual, population and biotic community levels. Sediment contaminant bioavailability and bioaccumulation into food webs and the scientific aspects of legal control and remediation of hazardous sediments. Prerequisite(s): one year of chemistry and biology, or consent of department. May not be repeated at the graduate level as BIOL 5720.

4750. Neuroscience. 3 hours. Brain chemistry, physiology and anatomy; neural basis of memory, perception, rhythms, emotion, cognition; development of the nervous system; neurological disorders. Prerequisite(s): 16 hours of biology or consent of department. May not be repeated at the graduate level as BIOL 5750.

4760. Neurobiology Laboratory. 1 hour. (0;3) Vertebrate neuroanatomy and experimental neurobiology using electrophysiological and behavioral methods. Prerequisite(s): credit for or concurrent enrollment in BIOL 4750. May not be repeated at the graduate level as BIOL 5760.

4770. Biotechnology. 3 hours. Applications of biotechnology in today's society. Emphasis on molecular biotechnology and its applications in industry, agriculture, medicine and forensic science. Students may enroll in BIOL 4580 for the companion laboratory component. Prerequisite(s): BIOL 2040 and 3350 or 3451/3452.

4800. Biological Sciences Seminar Series. 1 hour. A weekly seminar series covering a broad range of biological research topics. Invited speakers are prominent local, regional or national researchers. Prerequisite(s): 12 hours of biological sciences or consent of department. Pass/no pass only. May be repeated for credit. May not be applied toward upper-level science electives.

4900-4910. Special Problems. 1-3 hours each. Individual readings and laboratory research projects in biological sciences. Prerequisite(s): approval of supervisory faculty member, proposal filed in department advising office prior to registration and junior or senior standing. Three hours may be applied to advanced biology electives for the BS degree, but not the BA degree in biology.

4920. Cooperative Education in Biological Sciences. 1-3 hours. Supervised work in a job directly related to the student's major, professional field of study or career objective. Prerequisite(s): 12 hours of credit in biological sciences; student must meet employer's requirements and have consent of department. May not count toward a major or minor in biological sciences. May be repeated for credit.

4930. Special Problems. 1-3 hours. Individual study. Prerequisite(s): junior or senior standing and approval of supervising faculty member and/or consent of department.

4940. Honors Research in Biology. 3 hours. Advanced original independent research supervised by a faculty member in the biological sciences. For students interested in pursuing careers in research or medicine. Prerequisite(s): 3.25 GPA or better in the sciences, at least 20 hours of biology and 16 hours of chemistry, junior or senior standing and departmental approval.

4950. Honors Thesis in Biology. 3 hours. A continuation of BIOL 4940 involving advanced original independent research culminating in a written report supervised by a faculty member in the biological sciences. The results are written in standard thesis format and presented orally. For students interested in pursuing careers in research or medicine. Prerequisite(s): BIOL 4940 and departmental approval.

Business Administration, College of

Business Administration, Interdepartmental, BUSI

1200. Careers and Professional Development Strategies for Business. 1 hour. Introduces students to the process of business career exploration through integrating knowledge of self with knowledge of business career opportunities. Explores career opportunities within the disciplines of business (professional field choices) through a variety of sources. Introduces students to professional development activities and academic strategies/planning techniques that can work to enhance their business education and assist in timely completion of a business degree. Pass/no pass only.

1340. The Free Enterprise System in a Global Environment. 3 hours. Study of the free enterprise system in a global social, economic, and political environment. Overview of influence of global competition on the disciplines of business administration with particular emphasis on such markets as the Pacific Rim, Latin America, Europe, and the OPEC nations. Open to all university students regardless of major. Cannot be used to meet business foundation, business professional field, or business supporting field requirements. *Satisfies the Cross-cultural, Diversity and Global Studies requirement of the University Core Curriculum.*

2900. Special Problems. 1-3 hours.

3400. Readings in Business. 1-3 hours. Reading books influencing American business philosophy; reading for pleasure; study of current problems reported in business periodicals. (Credit varies depending upon amount and types of reading.)

4660. International Business Operations. 3 hours. Foreign operations of American firms and impact of foreign competition on the domestic market; organization for foreign production, marketing and finance; foreign markets, resources, institutions and managerial problems arising out of governmental relations. Prerequisite(s): MKTG 3650, FINA 3770 and senior standing.

4700. Topics in Mexican Business Practices and Policies. 3 hours. Topics include analysis of issues in accounting, marketing, management, finance, the legal environment, or information systems of Mexican companies and of U.S. companies dealing with Mexican counterparts. Students are introduced to the Mexican way of doing business and the role culture plays in transacting business with Mexican companies. Prerequisite(s): ACCT 2010 and 2020; MGMT 3330; and MKTG 3010 or BCIS 3615. May be repeated for credit as topics vary, for up to 9 hours of credit. Taught in Mexico.

4900. Special Problems. 1-3 hours.

4940. Business Policy. 3 hours. Enterprise management integrating the functional areas of business administration into a realistic approach to business problems; applying principles to complex problems at the executive level. Prerequisite(s): completion of all other business foundation courses with a grade of C or better and senior standing. To be taken during the last term/semester of course work.

Business Computer Information Systems

See Information Technology and Decision Sciences

Business Law

see Finance, Insurance, Real Estate and Law

Chamber Music

see Music

Chemistry

Chemistry, CHEM

1351. Context of Chemistry. 3 hours. (3;0;1*) Fundamentals of chemistry for students who are not science majors. Applications of chemistry to its role in the world. Topics include historical and philosophical development of modern chemistry, the environment, energy, industrial and economic development, modern materials, popular perspectives of chemistry. Prerequisite(s): concurrent enrollment in CHEM 1352. May not be counted toward a major or minor in chemistry. **This hour is a discussion session. May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1352. Laboratory for Context of Chemistry. 1 hour. (0;2) Laboratory techniques for CHEM 1351. Prerequisite(s): CHEM 1351 (should be taken concurrently). May not be counted toward a major or minor in chemistry. *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1410-1420. General Chemistry for Science Majors. 3 hours each. (3;0;1*) **This hour is a problem-solving session.*

1410 (CHEM 1311). Fundamental concepts, states of matter, periodic table, structure and bonding, stoichiometry, oxidation and reduction, solutions, and compounds of representative elements. Prerequisite(s): MATH 1100 or equivalent. *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1420 (CHEM 1312). Thermodynamics, reaction rates, equilibrium, electrochemistry, organic chemistry, polymers, radioactivity and nuclear reactions. Prerequisite(s): CHEM 1410 or 1413 or consent of department. *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1412-1422. General Chemistry for the University Honors Program. 3 hours each. (3;0;1*) **This hour is a discussion session.*

1412. Nature of chemistry, states of matter, periodic table, structure and bonding, stoichiometry, oxidation and reduction, solutions, compounds of representative elements, historical context, practical consequences. Prerequisite(s): MATH 1100 or equivalent, admission to University Honors Program. *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1422. Thermodynamics, reaction rates, equilibrium, electrochemistry, organic chemistry, polymers, radioactivity and nuclear reactions, historical context, practical consequences. Prerequisite(s): CHEM 1412 (or CHEM 1410 or 1413 with grade B or better and permission of the department), MATH 1100 or equivalent, admission to University Honors Program. *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1413-1423. Honors General Chemistry. 3 hours each. (3;0;1*) **This hour is a problem-solving session.*

1413. Fundamental concepts, states of matter, periodic table, structure, solutions and compounds of representative elements. Prerequisite(s): MATH 1100 or equivalent. High school chemistry or equivalent is strongly recommended. *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1423. Thermodynamics, reaction rates, equilibrium, electrochemistry and nuclear chemistry. This course is strongly advised and may be required for students planning to engage in undergraduate chemical research. Prerequisite(s): CHEM 1413 or consent of department. *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1430-1440. Laboratory Sequence for General Chemistry. 1 hour each. (1;3) Should be taken concurrently with CHEM 1410 or 1412 or 1413 and 1420 or 1422 or 1423.

1430 (CHEM 1111). Laboratory techniques, weighing, errors and significant figures, identification and purification of substances, and elementary quantitative analysis. Corequisite(s): CHEM 1410 or 1412 or 1413 (should be taken concurrently). *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*

1440 (CHEM 1112). Quantitative, gravimetric and volumetric analyses; coordination compounds. Corequisite(s): CHEM 1420 (should be taken concurrently); 1430. *May be used to satisfy a portion of the Natural Sciences requirement of the University Core Curriculum.*