FR 4390 French Honors Thesis 3(3) Individual honors research conducted and thesis completed under the direction of Language Department faculty member. May not be used to satisfy requirements for the major in Modern Languages-French or Language and International Trade or the minor in French. Preq: Junior standing and FR 4380 and membership in Calhoun Honors College.

FR 4750 Advanced French Seminar 3(3) Concentrated research and discussion on an advanced topic in French literature, film, drama, music, or philosophy. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: FR 3040 or FR 3050 and Senior standing.

FR 4760 Advanced Seminar on French Thought 3(3) Research and discussion of an advanced topic, text, or group of texts with a particular focus on French theory and philosophy but including works of French literature. Conducted in English. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Senior standing.

FR 4770 Advanced Seminar on the French and Francophone Novel 3(3) Examination of the French novel and/or narrative prose focusing on a theme, genre, or period. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: FR 3040 or FR 3050 and Senior standing.

FR 4910 Modern French Literature (Honors) 1(1) Independent study to allow students to pursue in depth an author, work, movement, or genre related to contemporary French culture, art, or literature. Preq or concurrent enrollment: FR 4000 and membership in Calhoun Honors College.

FR 4920 The French Corporation (Honors) 1(1) Independent study to allow honors students to pursue an in-depth study of the organization, structure, functions, and economic role of a French business enterprise. Preq or concurrent enrollment: FR 4170 and membership in Calhoun Honors College.

FR 4970 Creative Inquiry - French 1-4(1-4) Continuation of research initiated in FR 3970. Students complete their projects and disseminate their research results. Preq: FR 3970.

FR 4980 Independent Study 1-3(1-3) Directed study of a selected topic in French literature, language, or culture. May be repeated for a maximum of six credits. Preq: Consent of department chair.

FR 4990* Selected Topics in French Literature 3(3) Selected topics that have characterized French literature, language, and culture. May be repeated for a maximum of six credits. Preq: Consent of department chair.

GRAPHIC COMMUNICATIONS


GC 1010 Orientation to Graphic Communications 1(1) Introduction to the curriculum and the industry, including its processes, products, and careers. Emphasizes the attributes most desirable for successful entry and advancement up a variety of career ladders.

GC 1020 Computer Art and CAD Foundations 4(2) Graphic Communications industries make extensive use of software and best practices from concept through production. This course provides a solid foundation in drawing, imaging and layout software, packaging structure and 3D CAD; design principles and problem solving relative to audience, need, typograph, color, materials, printing and end use. Includes Honors sections. Coreq: GC 1021.

GC 1021 Computer Art and CAD Foundations Laboratory 0(6) Non-credit laboratory to accompany GC 1020. Coreq: GC 1020.

GC 1030 Graphic Communications I for Packaging Science 4(2) Emphasizes the interrelationships of packaging and graphic arts. Topics include theory and practice in packaging requirements relative to basic graphic arts concepts, principles, and practices: layout; design; electronic copy preparation; the printing processes of offset lithography; screen printing; gravure; and flexography. Includes digital and specialty printing processes, environmental, health, and safety concerns. Coreq: GC 1031.

GC 1031 Graphic Communications II for Packaging Science Laboratory 0(6) Non-credit laboratory to accompany GC 1030. Coreq: GC 1030.

GC 1040 Graphic Communications I 4(2) Emphasizes basic graphic arts industry concepts, principles, and practices, with laboratory applications in graphic design, digital layout, image capture/manipulation, offset lithography, screen printing, flexography, digital printing variable data, finishing operations and color management. Also covers gravure, letterpress, and specialty printing processes, along with environmental, health, and safety concerns. Includes Honors sections. Preq: GC 1020. Coreq: GC 1041.

GC 1041 Graphic Communications I Laboratory 0(6) Non-credit laboratory to accompany GC 1040. Coreq: GC 1040.

GC 1090 Creative Inquiry - Graphic Communications I 1-3(1-3) Under the direction of a faculty member, students pursue approved scholarly activities individually or in teams. These creative inquiry projects may be interdisciplinary. Arrangements with mentors must be established prior to registration. May be repeated for a maximum of six credits. Preq: Sophomore standing and acceptance of written proposal by and consent of advisor.

GC 1090* Creative Inquiry - Graphic Communications II 1-3(1-3) Advanced projects covering theory and/ or practices beyond the scope of regular coursework. The subject of work is determined by the instructor in consultation with the student, usually before the term begins or shortly thereafter. The student is expected to work independently and at a level consistent with the amount of work normally associated with the specific credit hours enrolled in. Written project approval is required prior to registration. May be repeated for a maximum of six credits with approval of advisor. Preq: Sophomore standing and acceptance of written proposal by and consent of advisor.

GC 3000 Graphic Communications Internship 1-12(1-12) Full-time supervised employment in an industrial in-plant setting for expansion of experience with materials and processes, production people, and organizations. Preq: GC 1020 and GC 1040 and Graphic Communications major and consent of instructor. Preq or concurrent enrollment: C.O.P. 2010.
Courses of Instruction

GC 3510 Special Projects in Graphic Communications II 1(3-13) Advanced projects covering theory and/or practices beyond the scope of regular coursework. The subject of work is determined by the instructor in consultation with the student, usually before the term begins or shortly thereafter. The student is expected to work independently and at a level consistent with the amount of work normally associated with the specific credit hours enrolled in. Written project approval is required prior to registration. May be repeated for a maximum of six credits with approval of advisor. Prereq: Junior standing and consent of faculty member/mentor.

GC 3990 Creative Inquiry–Graphic Communications III 1(3-13) Under the direction of a faculty member, students pursue approved scholarly activities individually or in teams. These creative inquiry projects may be interdisciplinary. Arrangements with mentors must be established prior to registration. May be repeated for a maximum of six credits. Prereq: Junior standing and consent of faculty member/mentor.

GC 4060* Package and Specialty Printing 4(2) In-depth study of the problems and processes for printing and converting in package label and specialty printing industries. Flexographic prepress, workflow, proofing, printing, die making, die cutting, converting, inventory, and consumer experience. Graphics are covered. New developments and trends are explored as well. Laboratory techniques in prepress, printing and converting. Includes Honors sections. Prereq: GC 3400. Coreq: GC 4060.

GC 4061* Package and Specialty Printing Laboratory 0(6) Non-credit laboratory to accompany GC 4060. Coreq: GC 4060.

GC 4070* Advanced Flexographic Methods 4(2) In-depth study of the methods used in flexographic printing and converting of porous and nonporous substrates. Theory and laboratory applications include setting standards for process color, preparation of plate systems, ink mixing and color matching, testing of films and foils, analysis of recent developments, and prediction of future markets. Prereq: GC 4060. Coreq: GC 4071.

GC 4071* Advanced Flexographic Methods Laboratory 0(6) Non-credit laboratory to accompany GC 4070. Coreq: GC 4070.

GC 4400* Commercial Printing 4(2) Advances skills learned in previous graphic communications courses and applies the knowledge to large format presses. Students work from the design conception stage through all aspects of preparation, production, and finishing. Emphasizes understanding and incorporating emerging technologies into the production workflow. Includes Honors sections. Prereq: GC 3400. Coreq: GC 4400.

GC 4401* Commercial Printing Laboratory 0(6) Non-credit laboratory to accompany GC 4400. Coreq: GC 4400.

GC 4440* Current Developments and Trends in Graphic Communications 4(2) Advanced course for Graphic Communications majors. Emphasizes the theory and technical developments that affect process and equipment selection. Topics include color theory and application, electronic color scanning, electronic prepress and communications, gravure color quality control and analysis. Includes Honors sections. Prereq: GC GC 4060 and GC 4400. Coreq: GC 4441.

GC 4441* Current Developments and Trends in Graphic Communications Laboratory 0(6) Non-credit laboratory to accompany GC 4440. Coreq: GC 4440.

GC 4450* Advanced Screen Printing Methods 3(2) In-depth study of the systems and materials used with the screen printing process. Emphasizes techniques of control and procedures for establishing screen printing methods and standards. Prereq: GC 2070. Coreq: GC 4451.

GC 4451* Advanced Screen Printing Methods Laboratory 0(3) Non-credit laboratory to accompany GC 4450. Coreq: GC 4450.

GC 4480* Planning and Controlling Printing Functions 3(2) Study of systems for setting printing production standards, estimating, scheduling, job planning, and the selection of new hardware and technologies. Includes Honors sections. Prereq: GC 3500 and GC 4060 and GC 4400 and GC 4500. Coreq: GC 4481.

GC 4481* Planning and Controlling Printing Functions Laboratory 0(3) Non-credit laboratory to accompany GC 4480. Coreq: GC 4480.

GC 4500 Graphic Communications Internship II 1(3) Continuation of GC 3500. Prereq: GC 3500; and either GC 4060 or GC 4400. Prereq or concurrent enrollment: COOP 2020.

GC 4510 Special Projects in Graphic Communications 1(6-16) Advanced projects covering theory and/or practices going beyond the scope of regular coursework. Written project approval is required before registering. May be repeated for a maximum of six credits with advisor’s approval. Includes Honors sections. Prereq: Junior standing and completion of three graphic communications courses.

GC 4550 Advanced Graphic Communications Internship I 3(1) Full-time employment in an industry directly or indirectly related to printing. Work site and job must be approved in advance. Prereq: GC 3500 and consent.

GC 4800 Senior Seminar in Graphic Communications 2(2) Study of current trends and issues in the graphic communications industry. Class centers around group discussions dealing with relevant topics facing the graphic communications manager today. Students draw upon academic experiences, internship experiences, and library research to facilitate discussion. Must be taken during student’s last semester on campus. Prereq: GC 4500.

GC 4900* Graphic Communications Selected Topics 1-3(1-3) Subjects not covered in other graphic communications courses; organized according to industry trends and student needs. May be repeated for a maximum of 18 credits, but only if different topics are covered. Prereq: Consent of instructor.

GENETICS


GEN 1030 Careers in Biochemistry and Genetics 1(1) Introduction to biochemistry and genetics career paths, professional organizations, ethical issues, and requirements for advanced study. Also gives students training in design of a professional portfolio. Students may not receive credit for both BCHM 1030 and GEN 1030. Prereq: Biochemistry or Genetics major.

GEN 3000 Fundamental Genetics 3(3) Introductory course covering fundamental principles of genetics in prokaryotes and eukaryotes. Emphasizes Mendelian genetics, physical and chemical basis of heredity, and population genetics. Prereq: BIOL 1030 or BIOL 1100.

GEN 3020 Molecular and General Genetics 3(3) Rapidly-paced course covering Mendelian and molecular genetics, with introductory coverage of quantitative and population genetics. Emphasizes the molecular basis of heredity and gene expression in prokaryotes and eukaryotes and modern genetic technology. Includes Honors sections. Prereq: BIOL 1100 with C or better.

GEN (BCHM) 3040 Molecular Biology Laboratory 2 (4) Introduces fundamental laboratory techniques commonly used in biochemistry, genetics, and molecular biology research. Principles and applications of these techniques are also discussed. May also be offered as BCHM 3040. Prereq: BIOL 1100. Prereq or concurrent enrollment: BCHM 3010 or GEN 3020.

GEN (BIOL) 4050* Molecular Genetics of Eukaryotes 3(3) Molecular genetic analyses of eukaryotes in relation to mutations and repair, complex phenotypes, biochemical pathways, short- and long-term regulation of gene expression, and evolution. May also be offered as BIO L 4050. Prereq: BCHM 3010 or BCHM 3050; and GEN 3000 and GEN 3020.

GEN 4100 Population and Quantitative Genetics 3(3) Classical and computational genetics topics, including Mendelian vs. non-Mendelian inheritance; genetic variation, evolutionary, conservation, coalescent theory, molecular evolution, quantitative trait locus, and association mapping in the framework of population and quantitative genetics. Includes Honors sections. Prereq: STAT 2300 and GEN 3020, each with C or better.