**4951. Honors College Capstone Thesis.** 3 hours. Major research project prepared by the student under the supervision of a faculty member and presented in standard thesis format. An oral defense is required of each student for successful completion of the thesis. Prerequisite(s): completion of at least 6 hours in honors courses; completion of at least 12 hours in the major department in which the thesis is prepared; approval of the department chair and the dean of the school or college in which the thesis is prepared; approval of the dean of the Honors College. May be substituted for HNRS 4000.

### **Decision Sciences**

see Information Technology and Decision Sciences

## Design

#### Design, ADES

**1500. Introduction to Communication Design.** 3 hours. Overview of the communication design profession. Terminology, design planning, creative methodological processes, human communication, metaphorical thinking, Gestalt, form analysis, semiotics, ethics and creative teamwork. Not offered every term/semester.

1510. Typography I. 3 hours. (2;4) Teaches students about typography's formal, plastic qualities. Topics covered include typographic anatomy and vocabulary, figure ground relationships, letterform drawing and rendering, character manipulation, typographic semiotics and the relationship existing between type and color. Structured around lectures, demonstrations, extensive studio work and critiques. Traditional and digital techniques are used over the course of the semester. This is an artifact based course. Prerequisite(s): ART 1200, 1440 and 1500; acceptance into the communication design program through the communication design entry portfolio review. Students are required to have completed Adobe Illustrator certification prior to the start of this class.

**1550. Introduction to Fashion Design.** 3 hours. An overview of fashion as art and as an industry, including manufacturing processes, terminology and line organization. Principles and elements of design as applied to fashion. Not offered every term/semester.

**1560.** Fashion Design: Introduction to Industrial Sewing Techniques. 3 hours. (2;4) Introduction to machinery and construction techniques used in the mass production of apparel. Student projects focus on unlined garment construction. Not offered every term/semester.

**1625. Introduction to Interior Design.** 3 hours. Basic understanding of concepts, principles and elements as they relate to the interior design profession. Not offered every term/semester.

2500. Design Thinking. 3 hours. (2;4) Introduces students to creative methodologies, research processes, ethnographic study, teamwork, ideational drawing for communication, iterative exploration, semiotics and branding. Students encapsulate the processes they learn in this class into a capstone visual artifact. This artifact along with projects and exercises generated in Typography I and II are evaluated by the communication design faculty to determine which students move forward into the next two courses in the communication design sequence. Participation in the conditional mid-point review is required to pass the course.

Prerequisite(s): ART 1510, ADES 1500 (may be taken concurrently), ADES 1510. Students must be enrolled concurrently in ADES 2510.

2510. Typography II. 3 hours. (2;4) Teaches students about typography hierarchy and systems. Building on the skills learned in Typography I, students engage with grid sequences and narrative, hierarchical relationships, typographic texture, typographic expressions, formal typographic variables and their effect on typographic systems. Traditional techniques are used over the course of the semester. This is an artifact-based course. Prerequisite(s): ART 1510. Students are required to have completed Adobe InDesign certification prior to the start of this class.

2520. Graphic Design I. 3 hours. (2;4) Students apply the processes and skills learned in Design Thinking (ADES 2500) as well as the typographic skills acquired in Typography I and II to produce a variety of graphic design artifacts such as visual identity development and collateral which may include, but is not limited to, brochures, stationery ensembles and/or poster design. Additionally, students learn various graphic illustration styles and continue to explore color theory. Participation in the midpoint review is required to pass the course. Prerequisite(s): ADES 2500 and 2510. Student must have been selected to continue in the program in the conditional mid-point portfolio review. Students are required to have completed Adobe Photoshop certification prior to the start of this class.

2530. Art Direction I. 3 hours. (2;4) Students learn the strategic planning techniques and methodologies required to successfully develop and produce conceptually-based advertising campaigns. Students are required to conceive and art direct original photography. Participation in the mid-point review is required to pass this course. Prerequisite(s): ADES 2500 and 2510. Student must have been selected to continue in the program in the conditional mid-point portfolio review. Students are required to have completed Adobe Photoshop certification prior to the start of this class.

**2550. Fashion Design I.** 3 hours. (2;4) Introduction to basic flat patternmaking techniques. Development of bodice, skirt and sleeve variations. Construction of muslin samples. Prerequisite(s): ART 1510 and ADES 1560. Not offered every term/semester.

**2555. Fashion Design II.** 3 hours. (2;4) Intermediate flat patternmaking. Development of pant, intermediate bodice, skirt, sleeve and collar variations. Construction of muslin samples. Prerequisite(s): ADES 2550. Not offered every term/semester.

2560. Fashion Design: Advanced Industrial Sewing Techniques. 3 hours. (2;4) Advanced construction methods; professional techniques of garment construction utilizing modern industrial equipment; tailoring and finishing. Prerequisite(s): ADES 1560. Not offered every term/semester.

**2570. Fashion Drawing I.** 3 hours. (2;4) Drawing the fashion figure from the live model. Various media. Concentration on developing a personal style and proper presentation of designs for industry. Prerequisite(s): ART 1510. Not offered every term/semester.

2630. Drawing for Interior Design. 3 hours. (2;4) Introduction to drafting equipment, mechanical drawing, architectural graphics and lettering. Emphasis on measured 3-dimensional space for interior presentation using one- and two-point perspective theory. Prerequisite(s): ADES 1625; ART 1200, 1440, 1450, 1500 and 1510; must pass the interior design entry portfolio review. Not offered every term/semester.

- **2640. Interior Design: Space Planning I.** 3 hours. (2;4) An introduction to space planning; emphasis on interior space, lighting, fabrics and color as applied to interior design. Prerequisite(s): ADES 1625 and 2630; ART 1200, 1440, 1450, 1500, 1510 and 2350; must pass the interior design entry portfolio review. Not offered every term/semester.
- **3500. Linear Design.** 3 hours. (2;4) Students learn how to create verbal/visual narratives by integrating disparate components into sequential page layouts. Students begin to resolve the heirarchical, informational and expressive relationships existing between text and image in order to enhance communication. Must be concurrently enrolled in ADES 3510. Prerequisite(s): ADES 2520 and 2530. Student must have been selected to continue in the program in the mid-point portfolio review. Students are required to have completed Adobe Dreamweaver and Flash certification prior to the start of this class.
- **3510.** Non-Linear Design. 3 hours. (2;4) Students in this digitally-based course learn how to integrate disparate components into interactive, non-linear narratives. Students resolve problems unique to electronic information delivery, as well as learn to design interfaces that bridge user needs with technological functions. Must be concurrently enrolled in ADES 3500. Prerequiste(s): ADES 2520 and 2530. Student must have been selected to continue in the program in the mid-point portfolio review. Students are required to have completed Adobe Dreamweaver and Flash certification prior to the start of this class.
- **3520. Graphic Design II.** 3 hours. (2;4) Students build on skills learned in previous design courses to conceive and produce multifaceted design campaigns. These campaigns may include artifacts that are appropriate for each student's unique client. These artifacts may be 2-dimensional, 3-dimensional or interactive. Prerequisite(s): ADES 3500 and 3510.
- **3530. Art Direction II.** 3 hours. (2;4) Students build on skills and processes learned in previous design courses to conceive and produce multifaceted advertising campaigns. The campaigns include artifacts that are appropriate for each student's unique client. These artifacts could be 2-dimensional, 3-dimensional or interactive. Prerequisite(s): ADES 3500 and 3510.
- **3550. Fashion Design III.** 3 hours. (2;4) Advanced patternmaking projects using draped and flat processes. Design development. Prerequisite(s): ADES 2570 and 2555; SMHM 2650. Not offered every term/semester.
- **3555. Fashion Design IV.** 3 hours. (2;4) Category design and group development. Industry team and CAD projects. Prerequisite(s): ADES 2555, 3550 and 3570. Not offered every term/semester.
- **3565. Fashion Accessories.** 3 hours. (2;4) Exploration of design process, product development, market research and production of fashion accessories. Prerequisite(s): ART 1440, 1450.
- **3570. Computers in Fashion: PDS.** 3 hours. (2;4) Practical use of computers in development of patterns, grading and marking for production. Prerequisite(s): ADES 2550 and 2555. Not offered every term/semester.
- **3575. Computers in Fashion: Artworks.** 3 hours. (2;4) Practical use of computers in development of apparel design. Presentation formats, development of fabric groups and merchandising of a fashion line with Gerber<sup>TM</sup> Artworks.

- **3580.** History of Fashion to 1865. 3 hours. Examination of fashion history through western culture from early civilization through 1865. Emphasis on research and critical thinking. Prerequisite(s): ADES 2555 or consent of instructor. Not offered every term/semester.
- 3585. History of Twentieth-Century Fashion. 3 hours. In-depth examination of significant 20th-century designers. Development of couture in fashion and related art trends. Texas Fashion Collection used as a major resource. Prerequisite(s): ADES 2555 and 3580 or consent of instructor. Not offered every term/semester.
- **3610. Interior Design: Presentation Techniques.** 3 hours. (2;4) Rendering methods; design board layout; graphics. Prerequisite(s): ADES 2630 and 2640; must pass the interior design sophomore portfolio review. Not offered every term/semester.
- **3620. Interior Design: AutoCAD.** 3 hours. (2;4) Basic AutoCAD software used in drafting and design applications. Software control for the production of industry standard drawings for both design presentation and construction documentation. Prerequisite(s): ADES 2630 and 2640. Not offered every term/semester.
- **3630. Interior Design: Space Planning II.** 3 hours. (2;4) Architectural elements of residential interiors wall and floor space, reflected ceiling plans, lighting, surface materials and treatments; furnishing interior spaces. Prerequisite(s): ADES 2640; must pass the interior design sophomore portfolio review. Not offered every term/semester.
- **3635. Interior Design: Construction Detailing.** 3 hours. (2;4) Introduction to methods and materials of basic construction techniques for interior design. Emphasis on detailing and specification for interior products and finishes. Prerequisite(s): ADES 3610, 3620 and 3630. Not offered every term/semester.
- **3640.** Interior Design: Space Planning III. 3 hours. (2;4) Residential interiors, developed floor plans, reflected ceiling plans, elevations and details including schedules and furniture specifications. Prerequisite(s): ADES 2640 and 3620. Not offered every term/semester.
- **3645. Interior Design: Building Systems.** 3 hours. Study of building systems, including lighting, plumbing, HVAC, fire detection/suppression and acoustics. Special emphasis placed on lighting technology, design and specifications. Prerequisite(s): ADES 3610. Not offered every term/semester.
- **4520. Graphic Design Print-Based Campaigns.** 3 hours. (2;4) Students in the tandem courses (ADES 4520 and ADES 4522) spend the semester conceiving, developing and producing a capstone project in graphic design. Students leverage all appropriate and available media to solve the communication challenges posed by their unique clients. Must be taken concurrently with ADES 4522. Prerequisite(s): ADES 3520 and 3530.
- 4522. Graphic Design Media-Based Campaigns. 3 hours. (2;4) Students in the tandem courses (ADES 4520 and ADES 4522) spend the semester conceiving, developing and producing a capstone project in graphic design. Students leverage all appropriate and available media to solve the communication challenges posed by their unique clients. Must be taken concurrently with ADES 4520. Prerequisite(s): ADES 3520 and 3530.

- **4525. Graphic Design Final Portfolio.** 3 hours. (2;4) Students prepare for entry into the profession by polishing their portfolio's content, form and presentation. Students must integrate both the print and interactive media presentations of their work. In addition, basic job research, interview and networking are essential components of this course. Students must successfully pass the communication design final portfolio review in order to pass the class. Prerequisite(s): ADES 4520 and 4522.
- **4530. Art Direction Print-Based Campaigns.** 3 hours. (2;4) Students in the tandem courses ADES 4530 and ADES 4532 spend the semester conceiving, developing and producing a capstone project in advertising. Students leverage all appropriate and available media to solve the communication challenges posed by their unique clients. Must be taken concurrently with ADES 4532. Prerequisite(s): ADES 3520 and 3530.
- 4532. Art Direction Media-Based Campaigns. 3 hours. (2;4) Students in the tandem courses (ADES 4530 and ADES 4532) spend the semester conceiving, developing and producing a capstone project in art direction. Students leverage all appropriate and available media to solve the communication challenges posed by their unique clients. Must be taken concurrently with ADES 4530. Prerequisite(s): ADES 3520 and 3530.
- **4535. Art Direction Final Portfolio.** 3 hours. (2;4) Students prepare for entry into the profession by polishing their portfolio's content, form and presentation. Studnets must integrate both the print and interactive media presentations of their work. In addition, basic job research, interview and networking are essential components of this course. Students must successfully pass the communication design final portfolio review in order to pass the class. Prerequisite(s): ADES 4530 and 4532.
- **4540.** Communication Design Studio. 3 hours. Developing additional competence in special areas. Prerequisite(s): advanced standing and consent of instructor; specific studio courses may require additional prerequisites. May be repeated for credit up to a total of 12 hours.
- **4545.** Communication Design Lecture Topics. 3 hours. Developing additional competence in special areas. Prerequisite(s): advanced standing and/or consent of instructor; specific courses may require additional prerequisites. May be repeated for credit as topics vary.
- **4550. Fashion Design V.** 3 hours. (2;4) Design patternwork and construction of garments. Emphasis on fit, professional construction methods, research and appropriateness for target market. Prerequisite(s): ADES 3555. Not offered every term/semester.
- **4555. Fashion Design VI.** 3 hours. (2;4) Design, patternwork and construction of senior collection in preparation for Artwear fashion show. Critical analysis of garments by a jury of industry professionals. Prerequisite(s): ADES 4550. Concurrent enrollment in ADES 4580 required. Not offered every term/semester.
- **4580. Fashion Design: Professional Practice.** 3 hours. (2;4) Presentation boards, interview and job search techniques. Design portfolio development. Prerequisite(s): ADES 4550. Concurrent enrollment in ADES 4555 required.
- **4590. Fashion Design Studio.** 3 hours. Developing additional competence in special areas. Prerequisite(s): advanced standing and consent of instructor; specific studio courses may require additional prerequisites. May be repeated for credit.

- **4615. Topics in Interior Design.** 3 hours. Research on selected topics or projects in interior design. Course includes field trips and classroom lectures. Prerequisite(s): consent of instructor. May be repeated for credit as topics vary.
- **4625. Interior Design: Professional Practice.** 3 hours. Business and office practice, fees and commissions, preparing estimates, contracts, professional ethics and job opportunities. Student must pass senior portfolio review. Prerequisite(s): ADES 4630. Not offered every term/semester.
- 4630. Interior Design: Space Planning IV. 3 hours. (2;4) Design of public and non-residential spaces; systems furniture; ergonomics; lighting; building systems; and concept development. Preparation of design presentation boards and design development drawings. Prerequisite(s): ADES 3620, 3635, 3640 and 3645. Not offered every term/semester.
- **4640. Interior Design: Space Planning V.** 3 hours. (2;4) Application of comprehensive problem-solving techniques, including research, programming, concept development, space planning, code review, design, detailing and systems integration for a large commercial space. Prerequisite(s): ADES 4630. Not offered every term/semester.

# **Development and Family Studies**

see Educational Psychology

## **Early Childhood Education**

see Teacher Education and Administration

### **Economics**

### **Economics, ECON**

- **1100-1110. Principles of Economics.** 3 hours each. Courses provide an introduction to the study of economics and are prerequisites for most upper-level courses. Courses are independent and students have the option to begin the sequence with either ECON 1100 or 1110.
  - 1100 (ECON 2302). Principles of Microeconomics. Business organization and market economy; theory of the firm; techniques of economic analysis in current economic problems; comparative economic systems. Satisfies the Social and Behavioral Sciences requirement of the University Core Curriculum.
  - 1110 (ECON 2301). Principles of Macroeconomics. Principles of economic organization and growth in modern, industrial society; money and banking, monetary and fiscal policy; determinants of national income and business fluctuations. Satisfies the Social and Behavioral Sciences requirement of the University Core Curriculum.
- 2900. Special Problems. 1-3 hours.
- **3000. Current Economic Issues.** 3 hours. Economic implications of current issues and problems using basic economic reasoning. Issues and problems may include defense, public debt, trade deficit, illegal drugs, education, technology, agriculture, poverty, crime, pollution, taxes, income distribution, recession, government regulation, competition, government spending, inflation, conservation, unemployment, subsidies and health. Prerequisite(s): junior standing. Intended for students not required to take specific economics course(s); may not be substituted for ECON 1100-1110 or 3550-3560. Not open to economics or business majors.