Arts and Technology

**ATEC 3325** Computer Mediated Communication (3 semester credit hours) This writing-intensive course will explore how we use technology to communicate, share knowledge, and develop social structures. This course will also introduce students to new media theoretical perspectives and scholarship as they critically analyze new media and cyberculture. Prerequisite: **RHET 1302**. (3-0) S

**ATEC 3331** Sound Design for Linear and Non-linear Media (3 semester credit hours) This class uses soundtrack analyses and listening exercises, lectures and short projects addressing the various components of a sound track: voices, sound effects, ambient sound, and music and the various techniques implied in production and post-production (field recording, post-synchronization of dialogues, editing, foley, mastering, etc.). Prerequisite: **ATEC 2385**. (0-3) R

**ATEC 3332** Additive Processes in Digital Fabrication Studio (3 semester credit hours) This studio course places an emphasis on 3D printing as a digital fabrication process. Students will learn to use 3D modeling software to create models for 3D printing. In this course both polygonal and nurbs modeling techniques will be used to create 3D printed forms. Students will also engage in a dialogue about the implications of additive manufacturing processes to contemporary artistic practice. Emphasis will be placed on proper file preparation for output devices. Prerequisite: **ATEC 2324** or **ATEC 2382** or **ATEC 3317** or instructor consent required. (0-3) R

**ATEC 3334** Laser Cutting in Digital Fabrication Studio (3 semester credit hours) This studio explores the relationship between laser cutting, engraving, and vector graphics in digital fabrication processes. Students will learn both two-dimensional and three-dimensional applications for this tool. In this course students will learn a variety of techniques for generating vectors based output and using them to create both two-dimensional and three-dimensional forms. Emphasis will be placed on applications development and proper file preparation for output devices. Prerequisite: **ATEC 2324** or **ATEC 3324** or **ATEC 3317** or instructor consent required. (0-3) R

**ATEC 3335** Scanned Data in Digital Fabrication Studio (3 semester credit hours) This studio explores the relationship between 3D scanned data and digital fabrication processes. Students will learn a variety of processes and methods for translating real world objects into digital form. In this course students will explore the implications of these technologies to contemporary artistic practice. Emphasis will be placed on an exploration of scale and the ways that scanned data can be manipulated artistically through digital fabrication. Prerequisites: **ATEC 2324** or **ATEC 3324** or **ATEC 3317** or **ATEC 3332** or instructor consent required. (0-3) R

**ATEC 3338** Digital Applications in Sculpture (3 semester credit hours) This studio explores the relationship between digital fabrication and traditional sculpture practice. Students will learn to use a variety of digital fabrication tools for traditional sculptural processes. In this course students will learn a variety of techniques for applying digital fabrication as a means and intermediate step in the process of sculpture. Emphasis will be placed on applications development and the creation of sculptural objects that extend the digital fabrication processes. Prerequisite: **ATEC 2324** or **ATEC 3324** or **ATEC 3317** or **ATEC 3332** or instructor consent required. (0-3) R
ATEC 4329 Advanced Projects in Digital Fabrication Studio (3 semester credit hours) This studio course explores the relationship between digital fabrication and traditional artistic practice. Students will develop a proposal outlining a project that will be executed using digital fabrication techniques. The proposal will be executed over the course of the semester and documented in both written and visual form. Focus on a specific aspect of digital fabrication will provide the framework for a critical analysis of their ideas through individual and group critiques. Emphasis will be placed on the production of work and a discussion of its relationship to contemporary artistic practice. Registration for this course will be based on the faculty's review of the student's portfolio. Prerequisites: ATEC 4325 and instructor consent required. (0-3) R

ATEC 4341 Digital Marketing Design (3 semester credit hours) This course provides an overview of ways web, social media, mobile technologies, games, and other media formats may be used to create and design communications programs. The course provides an overview of these media and how they may be used to create a marketing-based communications plan. Prerequisite: ATEC 3384. (0-3) R

ATEC 4347 Design Innovation Workshop (3 semester credit hours) This advanced course focuses on broad design research to yield insights about what users find desirable, what is technologically possible, and what is valuable to the business enterprise that will ultimately invest in, develop, and build new products and services. Prerequisite: ATEC 3361 or ATEC 3363. (0-3) Y

ATEC 4374 Topics in Digital Design (3 semester credit hours) Advanced digital design methods that explore specific design-oriented areas of interest. Sections may be devoted to a single aspect of design or to a variety of subjects in the field. May be repeated for credit as topics vary (9 semester credit hours maximum). Department consent required. (0-3) Y