

COR 3093H, 4093H Honors: Integrated Humanities I, II

Each course, three hours

A six-hour course sequence studying the development of human thought and expression from the perspective of the arts, literature, and philosophy. Using a basically chronological approach, students study the dominant artforms in their philosophical contexts, seeking to develop an integrated understanding of human history and the relationship between ideas and the arts. Students are exposed to the writings of important philosophers and great works of literature, music, and the visual arts. The course requires participation in relevant arts activities in the surrounding area, and students are encouraged to support and become involved in community arts programs as a means of developing a lifelong commitment to the arts. Prerequisites: admission to the Honors Program or permission of the Honors Committee, EGL 1023 and HST 1003 (or Honors counterparts)

3093H Offered fall semester (even-numbered years)

4093H Offered spring semester (odd-numbered years)

CS (Computer Science)

CS 1113, 1123 Introduction to Computer Science I, II

Each course, three hours

Two-semester sequence introducing algorithmic problem solving. In the context of a modern programming language, such topics as problem solving strategies, basic data structures, data and procedural abstraction, and algorithm complexity are discussed. Prerequisite for 1113: MTH 1113 or equivalent. Prerequisite for 1123: CS 1113

1113 offered fall semester

1123 offered spring semester

CS 2113 Introduction to Computer Systems

Three hours

A first course in digital systems, including a treatment of logic and digital circuits as well as design using register level components. Data representation, device characteristics, and register transfer notation are covered in a manner that stresses application of basic problem solving techniques to both hardware and software design. Prerequisite: CS 1123

Offered fall semester

CS 2123 Analysis and Design of Algorithms

Three hours

A study in algorithms treating such topics as appropriate choice of data structures, recursive algorithms, complexity issues, and issues associated with computability and decidability. Prerequisite: CS 1123. Corequisite: MTH 1133

Offered fall semester

CS 3213 Computer Architecture

Three hours

A study of design alternatives in computer architecture. Instruction set architectures, memory subsystems organization, interfacing concepts, and issues arising in managing communication with the processor are covered. Prerequisite: CS 2113

Offered spring semester

CS 3233 Selected Topics **Three hours**

A study of a special area of computer science such as artificial intelligence, computational complexity, computer graphics, computer-human interface, database and information retrieval, fault-tolerant computing, information theory, numerical computation, parallel and distributed computing, or theory of computation. Prerequisite: consent of the instructor; varies according to topic.

Offered each semester

CS 3313 Software Systems **Three hours**

Problem solving strategies and concepts applied in the context of design and implementation of software systems. Students gain an appreciation for intractable problems as well as an exposure to concurrent systems. Prerequisite: CS 2123

Offered spring semester

CS 3523 Programming Languages **Three hours**

Basic elements of programming languages (functional, imperative, and object-oriented) with an emphasis on separating the different elements of programming languages and styles. Prerequisite: CS 3213

Offered fall semester

CS 3613 Operating Systems **Three hours**

Systems software applied primarily to operating systems. Such topics as process management, device management, and memory management are discussed, as are relevant issues associated with security and protection, networking, and distributed operating systems. Prerequisites: CS 3213, 3313

Offered spring semester

CS 4113, 4123 Software Engineering I, II **Each course, three hours**

Two-semester sequence on design and implementation of large software systems. A continued emphasis on problem solving concepts is integrated with a treatment of the software life cycle, requirements specifications, and verification and validation issues. Social and ethical issues faced by the computing professional are discussed in the context of software engineering. Students complete a substantial software project. Prerequisite for 4113: CS 3213, 3313. Prerequisite for 4123: CS 4113

4113 offered fall semester

4123 offered spring semester

DMA (Digital Media Arts)

DMA 1311 Computer Graphics: Animation **One hour**

A first course in computer animation. Students develop foundational skills essential to later coursework.

Offered each semester

DMA 1321 Computer Graphics: Web **One hour**

A first course in Web production, including introduction to HTML and Macromedia authoring tools. Students develop foundational skills essential to later coursework.

Offered each semester

DMA 1331 Computer Graphics: Video **One hour**

A first course in video production. Students develop foundational skills essential to later coursework.

Offered each semester