

INFORMATION TECHNOLOGY (IT)

IT-100 Information Technology

Credits: 3

Term Offered: All Terms

Course Type(s): TL

Introduction to computer-based information management concepts that provide an integrated approach to personal computer software in a Windows environment. These include, word processing, spreadsheet, database, presentation graphics, and electronic communication applications; information retrieval from the Internet and online library resources; fundamental computer literacy; and the ethical and societal implications of computer technology. Hands-on experience with a microcomputer on a networked system is provided. Not open to students who have completed CS-102 or IT-102 or IT-150.

IT-102 Information Technology for Scientists

Credits: 3

Term Offered: All Terms

Course Type(s): TL

Introduction to computer-based information management that provides an integrated approach to personal computer software in a Windows environment, which includes word processing, spreadsheet, mathematics, database, presentation graphics, Internet and electronic communication applications. Emphasizes scientific applications, technical report preparation and presentation. Hands-on experience with a microcomputer on a networked system is provided.

IT-103 Applied Information Technology

Credits: 3

Term Offered: Fall Term

Course Type(s): TL

Applies the principles and tools of information technology toward a deeper understanding of their impact on scientific, social and ethical issues via a central theme for the semester such as (but not limited to) climate change, big data, health-care cost analysis and others. This course will use software such as spreadsheets, databases, modeling, simulation, data analysis, software, electronic-communication applications; information retrieval from the internet and on-line library resources; social media, intranet and extranet systems to help students emerge with thematic materials in a way that deepens their understanding of associated topics.

IT-150 Information Technology for Business

Credits: 3

Term Offered: All Terms

Course Type(s): TL

Introduction to computer-based information business management that provides an integrated approach to personal computer software in a Windows environment. This includes fundamental technology literacy; operating systems, word processing, spreadsheet, database, presentation graphics, and electronic communication applications; computer and network security; troubleshooting; information retrieval from the Internet and on-line library resources; intranet and extranet systems; and the ethical, societal, legal, and economic implications of computer technology. Hands-on experience with a microcomputer on a networked system is provided.

IT-200 Advanced Information Technology

Credits: 3

Prerequisite(s): IT-100 or IT-102; or CS-104 or IT-150

Term Offered: All Terms

Course Type(s): None

Advanced concepts and techniques in computer-based information management are provided through an integrated approach to personal computer hardware and software in a Windows environment. These include: hardware and software considerations; societal and ethical considerations; the program development life cycle; creating tables; merging documents and desktop publishing in word processing; creating templates, workbooks with multiple worksheets, and creating a data map in electronic spreadsheets; creating custom reports and an application system using macros in database management; and using embedded visuals in presentation graphics applications. Hands-on experience with a microcomputer on a networked system is provided.

IT-250 Internet and Network Technology

Credits: 3

Prerequisite(s): IT-200 or CS-175 or permission of the instructor

Term Offered: All Terms

Course Type(s): None

Introduction to integrated application software used for authoring and publishing Web sites in a Windows environment. Applications include markup programming and Internet scripting languages used to create Web pages. Network technologies and the fundamental concepts involved in creating a network and in facilitating network operation will also be introduced. Concepts include: protocols, networking media, and architectures. Hands-on experience with a microcomputer on a networked system is provided.

IT-298 Special Topics in Information Technology (200 Level)

Credits: 3

Prerequisite(s): IT-100 and as announced in the course schedule

Course Type(s): None

Topics of current interest in Information Technology.

IT-299 Independent Study in Information Technology

Credits: 3

Term Offered: Summer Term

Course Type(s): None

Reading and research on a selected topic under the direction of a faculty member.

IT-300 Windows Applications: Program Design and Implementation

Credits: 3

Prerequisite(s): IT-250 or permission of the department

Term Offered: All Terms

Course Type(s): None

Program development life cycle, core programming concepts, and software design and methodologies used to create Windows applications with Visual Basic. Practical problems are used to illustrate application-building techniques used in a variety of applications, including Windows desktop application and applications targeted for the Internet and intranets. Topics include designing customized user interfaces, building dialog boxes, adding drag-and-drop functionality to applications, and creating customized database management and reporting applications. Hands-on experience with a microcomputer on a networked system is provided.

IT-398 Special Topics in Information Technology (300 Level)

Credits: 3

Prerequisite(s): IT-100 and as announced in the course schedule

Course Type(s): None

Topics of current interest in Information Technology.

IT-399 Independent Study in Information Technology Credits: 3

Term Offered: Spring Term

Course Type(s): None

Reading and research on a selected topic under the direction of a faculty member. Prior permission of the directing professor and department chair is required to take this course.

IT-450 Information Systems Project Management Credits: 3

Prerequisite(s): IT-250 or permission of the department

Co-requisite(s): IT-300

Term Offered: All Terms

Course Type(s): EX5

The tools and skills of the systems analyst needed in information systems project management are introduced through the case study and experiential approach. Project management software will be used within an integrated-software environment-systems framework; students will complete two information technology projects in Web and database design for external clients.

IT-498 Special Topics in Information Technology (400 Level) Credits: 3

Prerequisite(s): IT-100 and as announced in the course schedule

Course Type(s): None

Topics of current interest in Information Technology.