

COMPUTER INFORMATION SYSTEMS (CIS)

CIS 099 Field Study (0 credits)

At the end of the semester, students will travel to London and other European destinations. This section is for students who will be participating in the Network Perspectives Travel course, but not taking the course for credit. The importance of network security in today's world is increasingly becoming a global concern. It is imperative to have an understanding of how the international community addresses network security to insure the reliability of our own data communications infrastructure. The online portion of this course will provide an introduction to the issues of globalization and the technology of telecommunications and networking. Topics will include techniques and policies for securing networks, and an overview of cybercrime and its prevention. Abroad, students will participate in seminars with academic and industry professionals to get the international perspective.

Prerequisites: This course is for students registering for CSIS Field Study/Travel component only. Permission of instructor is required.

CIS 100 Electronic Keyboarding (1 credits)

This course is designed to help students develop keyboarding accuracy and speed and increases their keyboarding proficiency in the production of basic business and professional documents. Touch typing, correct keyboarding techniques and ergonomics will be stressed.

Course Rotation: Fall:NY;PLV

CIS 101 Introduction to Computing (0-3 credits)

At Pace University, and in careers beyond Pace, students will face the challenges of coping with technology and the opportunities to benefit from the productive use of technology. The Computer Information Systems 101 course will provide students with guided hands-on exercises with a variety of computer-based tools through two hours of structured computer lab. The hands-on portion of the course will give the student direct experience with an application package (MS Excel), web development (HTML), and computer programming (Alice). The concepts portion will consist of weekly readings from the text, weekly threaded discussions, lecture notes and other assignments. It will cover basic computer hardware and software topics, computer careers, and computers and society. The two hours of lecture and discussion will promote understanding of the fundamental principles of information technology so that students will be prepared for the new systems and tools of the future.

Course Rotation: Fall, Spring, and Summer.

CIS 101C Introduction to Computing (CAP) (3 credits)

At Pace University, and in careers beyond Pace, students will face the challenges of coping with technology and the opportunities to benefit from the productive use of technology. The Computer Information Systems 101 course will provide students with guided hands-on exercises with a variety of computer-based tools through two hours of structured computer lab. During the course, students will complete projects in problem solving, programming and spreadsheets. They will also be introduced to exciting new technologies. The two hours of lecture and discussion will promote understanding of the fundamental principles of information technology so that students will be prepared for the new systems and tools of the future.

CIS 102 Special Topics in Computer and Information Systems (1-6 credits)

This course is a basic introduction to building mobile robots. Students will learn how to design and construct a mobile robot within time, materials and cost constraints. Using project component kits (e.g. LEGO Mindstorm) they will learn how to program the robot and determine how the robot reacts to its environment. Inputs, Outputs, Sensors, loops and simple programming constructs will be covered through the use of robotic-based projects. This course will utilize the pedagogy of community based learning to connect students to their local community and sensitize them to the issue of problem solving. Direct student participation in the workings of local elementary and middle schools will provide the community-based component and encourage leadership skills through active engagement.

Course Rotation: TBA.

CIS 102A Topic: Introduction to Visual Basic (1 credits)

CIS 102B Topic: Introduction to Programming (1 credits)

CIS 102C Topic: Internet-Introduction to Publishing on World Wide Web (1 credits)

CIS 102D Topic: Html Programming (1 credits)

CIS 102E Topic: Introduction to E-Commerce (1 credits)

CIS 102G Topic: Advanced HTML (1 credits)

CIS 102H Topic: Introduction to MultiMedia (1 credits)

CIS 102J Topic: Computer Applications Using Spreadsheets (1 credits)

CIS 102K Topic: Introduction to the Internet (1 credits)

CIS 102L Topic: Introduction to Dream Weaver (1 credits)

CIS 102M Topic: Web Page Creation and Design (1 credits)

CIS 102N Topic: Introduction to Project Manager (1 credits)

This course focuses on the use of Microsoft Project, a scheduling software application, to successfully plan, manage and deliver projects. At the same time, the fundamental principles of the project management process will be introduced. Planning, scheduling, assigning resources, and solving problems within a project will be examined using hands-on examples.

CIS 102O Topic: Introduction to Access (1 credits)

CIS 102P Topic: Introduction to PowerPoint (1 credits)

CIS 102Q Problem Solving Using LEGO Robotics (3 credits)

This class introduces students to basic problem solving and project management techniques which can be applied to building, programming and managing the creation of robots using the LEGO Mindstorms Robotics system. Students will spend a significant amount of time outside the classroom in activities designed to share the robotics skills they have learned with younger students to excite them about studying science and technology.

CIS 102R Tpc: "The Cmptr" in Scnce Fctn (3 credits)

This course offers the opportunity to study special topics in computer and information systems. Please refer to the current schedule of classes for announcement of course topics offered.

CIS 102S Trade and Technology at Intersection in the City (3 credits)

CIS 102T Intergenerational Computing (3 credits)

This course is designed to teach students the fundamentals of the PC and digital media technologies as well as the social and sociological aspects of the aging process. Students will work in teams visiting elderly seniors in adult day care centers and senior community centers to teach them to utilize digital media devices, web browsers, and email. This will provide students with an in-depth understanding and respect of both senior citizens and intergenerational computing.

CIS 102V Visual Thinking -Visual Computing (4 credits)

This is a course designed to provide an introduction to the use of computers for visual communication with a focus on the key role computer graphics plays in information representation and display. The goal of this course is to help students more effectively create, use, and understand images made with computers. Visual thinking and communication are now integral to creating and sharing knowledge in all fields, including business, science, and the humanities, with visual literacy skills growing to be as important as textual and mathematical.

CIS 102W Web Design for Non-Profit Organizations (3 credits)

This is a discipline-based course that affects an exciting and new learning experience for students, in implementing and enhancing actual Web sites that benefit local non-profit agencies. The students are introduced in class to the methods of designing Web sites in a non-profit paradigm and are involved in developing, implementing and enhancing the sites in the field, in teams that include clientele of the agencies.

CIS 102X Information Technology for Strategic Community Planning (3 credits)

The vital work of community organizations is quickly being transformed by technology. Digital archiving and Geographic Information Systems (GIS) are rapidly increasing productivity, enhancing strategic initiatives and creating greater access to historical and current information. For this course, the Seidenberg School has partnered with a non-profit organization, to complete an actual community project, to illustrate, to students, how technology can greatly augment worthy society initiatives. This will be accomplished through a thorough understanding of how data is stored, related, filtered and retrieved to produce meaningful information. Students will be exposed to GIS, Digital Archiving and Database design, implementation and maintenance, all of which are in overwhelming demand in all sectors of the community. Students will also learn how cutting-edge technologies are used, including imaging equipment and global positioning systems.

CIS 102Z Topic: The History of Video Games (3 credits)

From Pong to PlayStation, video games have become part of our history and represent not only a progression in technology but also changes in our cultural and societal attitudes. We will learn about the groups who made games and the groups that would endeavor to ban and censor them. This course covers a time period from 1960 – 2000 and offers students an opportunity to get hands-on experience with original video game consoles and other artifacts spanning those decades.

Course Rotation: NYC & PLV: Fall & Spring

CIS 103 Problem Solving Using Technology (3 credits)

This course is an introduction to problem solving and computer programming. This course covers basic procedural techniques such as variables, data types, selection, interaction and functions. It will also introduce students to object-oriented programming. We'll also look at various general programming concepts, such as algorithm design and debugging. By the end of the course, students should be able to construct a moderately-sized Python program.

Course Rotation: Spring;NYC

CIS 107 Computer Studies (3 credits)

CIS 120 Advanced Windows Skills (2 credits)

CIS 121 Advanced Word Processing Skills (2 credits)

This course covers in-depth the advanced features of word processing programs. Emphasis is placed on developing expertise in advanced document design and processing on the creation, editing and formatting of documents. Topics include: multiple-page reports, tables, mail merge, graphics and charts, desktop publishing, and automating tasks.

Course Rotation: Fall and Spring

CIS 122 Advanced Spreadsheet Skills (2 credits)

This course covers in-depth the advanced features of spreadsheet programs. Emphasis is placed on using spreadsheets to solve problems. Topics include: good spreadsheet design, graphing, working with financial tools and analytical functions, automating spreadsheets with macros, exploring what-if alternatives with pivot tables and charts, data tables, Goal Seek, Solver and Scenarios, using database functions, and developing an Excel application.

Course Rotation: Fall;NY:PLV

CIS 122L Advanced Spreadsheet Skills - Test Prep (3 credits)

This is an online course that introduces students to the features of perhaps the most popular and widely used business spreadsheet program - Microsoft Excel and prepares them for the Microsoft Office Specialist (MOS) Excel 2013 Certification exam. This is a hands-on course that covers the fundamentals of good spreadsheet design and management. Topics include: creating and saving an Excel workbook; using the Ribbon; learning concepts, terms and jargon; brushing up on math skills; entering labels, formulas, and functions; printing worksheets and workbooks; creating and using charts; creating and using Excel tables; and using the decision make strength of Excel.

Course Rotation: PLV: Fall, Spring; Online: Fall, Spring

CIS 123 Advanced Presentation Skills (2 credits)

This course covers in-depth the advanced features of presentation software and good presentation design and techniques. Emphasis is placed on creating and making effective presentations. Topics include: preparation/planning of a presentation, rhetorical techniques, audience preparation, and the use of advanced features of slide show software, including customizing slide shows, applying special effects, inserting audio and video, and Hyperlinks.

Course Rotation: NY:PLV;Fall:Spring

CIS 125 Unix Fundamentals (1 credits)

This course will present an overview of the Unix operating system including a brief history and description, basic features and frequently used commands, the file system, shell programming, and filters.

Course Rotation: PL: Summer.

CIS 126 Introduction to Apple Operating Systems (2 credits)

A Mac computer is not required for this course, but it is suggested. This course covers in-depth look at some of the features of Apple's OS X El Capitan. It covers many of the tools and hidden gems in the OS X El Capitan Operating System. If you're new to OS X, this course will show you how to use all of the important features on the Mac before explaining how to customize the operating system to suit your specific needs

Course Rotation: Fall, Spring and Summer

CIS 133 Social Media (2 credits)

This course provides a comprehensive introduction to social media and interactive Web 2.0 technologies in use today. Students will gain a solid understanding of the current trends in technology and the concepts associated with interactive information sharing and new Web applications. They will gain knowledge of web-based communities, social-networking, and video and file sharing sites.

Course Rotation: NY:WP;Fall:Spring

CIS 141 Database Applications Skills (2 credits)

This course covers basic database management concepts. Students will learn database design and database implementation. Topics include: Database design and relational operations, querying the database, forms and reports.

Course Rotation: NY:PLV;Fall:Spring

CIS 142 Advanced Database Applications Skills (2 credits)

This course covers advanced database management concepts. Students will build on their knowledge of basic database design and implementation. Topics include: Advanced database design and relational operations, advanced queries, advanced forms and reports.

Course Rotation: NY:PLV;Fall;Spring

CIS 143 Introduction to SQL for Business (3 credits)

This course introduces the concept of relational databases where many organizations store data, and covers SQL used to retrieve the information relevant to formulate useful insights for decision making. The topics include relational model and data modeling with entity-relationship diagram, as well as retrieving information from single and multiple tables, sorting and formatting data, and creating a database with tables..

Course Rotation: Fall and Spring; NY and PLV

CIS 151 Game Development for Everyone (3 credits)

In this course, students will learn programming and interactivity through the lens of Game Development. No prior experience is needed. Students will gain familiarity with a game engine and learn about topics such as sprites, models, collisions, physics, lighting, and audio. Additionally, students will create their own behaviors through scripting. This is a project-based course with students building playable games throughout the semester.

Course Rotation: NYC: Fall, Spring, & Summer

CIS 161 Design Thinking and Innovation (3 credits)

This project-based learning experience will provide students with an opportunity to develop their creative problem-solving skills using a design thinking approach. Collaboratively, students will explore how to leverage design thinking tools and mindsets to develop technology-driven solutions for design challenges that tackle societal needs. Throughout the design process, students will actively cultivate empathy, generate creative ideas, and prototype solutions. They will also consider various aspects such as system components, future scenarios, and human behaviors. The outcome of the design process will be the creation of products, services, or experiences that prioritize equity, equality, and have a positive impact on society. Students who have taken CIS 102Y (Design Thinking and Innovation) cannot register for this course.

Course Rotation: NYC & PLV: Fall & Spring

CIS 296Q Advanced Problem Solving Using LEGO Robotics (3 credits)

This course explores the range and depth of problems and challenges which can be designed and solved using consumer-level robotics equipment. Students will perform a series of team-based labs which will explore advanced features of LEGO Mindstorms and their use in problem solving. They will also participate in design exercises to create new robotic challenges in or more application areas.

CIS 395 Independent Study in Computer Information Systems (1-6 credits)

CIS 395A Independent Study in Computer Information Systems (A) (1-6 credits)

CIS 395B Independent Study in Computer Information Systems (B) (1-6 credits)

CIS 395C Independent Study in Computer Information Systems (C) (1-6 credits)

CIS 396 Special Topics in CSIS (3 credits)**CIS 396A Topic: Field Study: International Perspective on Network Security (3 credits)**

The importance of network security is increasingly becoming a global concern. It is imperative to have an understanding of how the international community addresses network security to insure the reliability of our own data communications infrastructure. The online portion of this course will provide an introduction to the technology of telecommunications and networking. Topics will include techniques and policies for securing networks, and an overview of cyber crime and its prevention. Abroad, students will participate in seminars with academic and industry professionals to get the international perspective.

CIS 396B Travel to India: Technology Outsourcing (3 credits)

Trip Destination: India Trip Dates: January 2006 Trip Cost: \$2650. A \$800 deposit is due by June 1, 2005.

CIS 396C Topic: Field Study: Travel to UK (4 credits)**CIS 396D Applied Problem Solving: Using Technology and Human Endeavor in Community Education (3 credits)**

Computers can be employed to solve problems efficiently while humans have the ability to solve problems ethically. Together, people and computers can find elegant solution to difficult problems. After learning to use technology-based tools, students will go out into the community use these technology tools in scheduled enrichment sessions.

CIS 396H Honors Seminar: Intersections of Problem Solving (3 credits)

Computers can be employed to solve problems efficiently while humans have the ability to solve problems ethically. Students taking this class will gain a foundation level understanding of the social, scientific and economic basis of key problems and the algorithmic ways that these problems can be addressed through computers.