

NETWORK ADMINISTRATOR

NETWORK ADMINISTRATOR CERTIFICATE

18 credits

This program answers a need in the local region from educational and financial institutions as well as small business for people with the basic skills to effectively manage microcomputer networks. SUNY Ulster is designated as a Regional Academy for Cisco Systems training and a member of the Microsoft IT Academy program.

NETWORKING FUNDAMENTALS

Students are introduced to the architecture, structure, functions, components, and models of the Internet and other computer networks following Cisco Academy recommendations. Emphasis is given to the use of decision making and problem solving techniques. This is the first course in the four semester CISCO Systems CCNA Exploration program. Prerequisite: MAT 098. Corequisite: knowledge of modern PC operating system with office applications.

NET 101-01 T/R 8/27-10/15 9am-12:30pm SRC

NET 101-52 T/R 8/27-10/15 5:30-9:15pm SRC

No class 10/15 & 11/28

INTRO TO ROUTING & SWITCHING

This course is the second course of the four semester Cisco Systems CCNA preparation program. This track is a robust implementation that follows the proven, world recognized Cisco Networking Academy curriculum and incorporates significant online components, including testing. It is designed for students seeking a technical degree in the field of Computer Networking, and for the student seeking CCNA/CCNP certification. Prerequisite: NET 101

NET 102-29 T/R 10/16-12/6 9am-12:30pm SRC

NET 102-59 T/R 10/16-12/6 5:30-9:15pm SRC

No class 11/28

COMPUTER MATHEMATICS

This course is designed for students in the Network Administration Program. Topics essential to solving problems associated with computers and computer networks are covered. Prerequisites: MAT 098, high school equivalent (see Guidelines for Mathematics Placement), or Entering Student Assessment at MAT 100 (or higher).

MAT 120-01 M 8/26-12/17 1:45-4:30pm SRC

No class 9/2 & 10/14 • class will be held T 10/15

OPERATING SYSTEMS & UTILITIES

Students will obtain a mastery of operating systems concepts and a foundation of the boot process in this broad background course. They will apply their skills to maintaining disks and files, and building and maintaining shell scripts/batch programs. Examples of the role, scope, and complexity of operating systems are provided. Effective use of utility software is emphasized. The course is taught using MS Windows and Redhat Linux software.

CIS 116-01 M/W 8/26-12/17 11:40am-1pm SRC

No class 9/2 & 10/14 • class will be held T 10/15



IBM Community College Skills Accelerator Program for New Collar Jobs

IBM has partnered with select community colleges including SUNY Ulster to build “new collar” skills for employment. This program provides SUNY Ulster faculty and staff access to IBM technical resources and an educational pathway that prepares students for “new collar” roles. IBM locally hires apprentices for Hardware Design Technicians, Mainframe System Administrators, Electronics Engineer Lab Technicians, Software Engineers and Chemical Technicians. Graduates of SUNY Ulster are able to apply for these apprentice positions at <https://careers.ibm.com/ListJobs/All/Search/jobtitle/apprentice/new-collar-role/yes/>

RECRUIT SUNY Ulster’s TOP NOTCH Talent

WAYS TO RECRUIT SUNY ULSTER STUDENTS

SUNY Ulster would like to partner with you to explore, engage, and recruit our best talent. Services and resources we offer to benefit and support your recruiting efforts.

- College Central Network - an online tool that allows local employers to recruit SUNY Ulster students and graduate. Register at collegecentral.com/sunylster
- Keep a look-out for our spring career fair, an event that can provide a great opportunity to educate students and alumni about your company and network with potential future employees.
- Tabling is a great way to increase visibility and raise awareness about opportunities with your organization.
- We will help arrange company visits. Company visits are designed to take a small and select group of students to your place of business for a tour of the facility, to attend a presentation on career opportunities, and to network with your employees.

For more information, contact Career Services
845-802-7188 / careerservices@sunylster.edu



COMPUTER SCIENCE • WEB APPLICATION DEVELOPER • COMPUTER GAME DESIGN & MOBILE APPLICATION DEVELOPER

COMPUTER SCIENCE I

This course covers the fundamentals of computer problem solving and programming. Topics include: program development process, differences between the object-oriented, structured, and functional programming methodologies, phases of language translation and error conditions associated with each phase, primitive data types, memory representation, variables, expressions, assignment, fundamental programming constructs, algorithms for solving simple problems, tracing execution, subprograms/functions/methods, parameter passing, secure coding techniques and professional behavior in response to ethical issues inherent in computing. The Java programming language is used. Corequisite: MAT 115 or equivalent or permission of the instructor.

Instructor: J. Sheehan

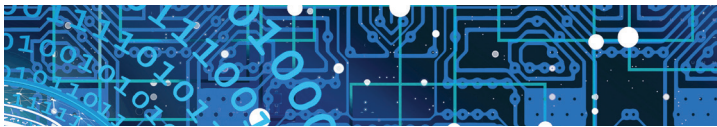
CSC 150-01B M/W/F 8/27-12/18 noon-12:55pm SRC

CSC 150-S01 ONLINE 8/27-12/18

No class 9/2, 10/14, 11/27 & 11/29 • class will be held T 10/15

COMPUTER SCIENCE II

This course covers the fundamentals of algorithms and object oriented software development. For a full course description refer to catalog at catalog.sunyulster.edu. **This course will be offered spring 2020.**



COMPUTER GAME DESIGN CREDENTIAL

This credential is designed to prepare students for a career in designing and developing computer games. This 16-credit program is designed to fit within SUNY Ulster's A.S. Computer Science degree program. The program curriculum is made up of two courses in Computer Science and two courses in Computer Game Design.

COMPUTER GAME DESIGN I

This course is an introduction to the principles of computer game development. **This course will be offered spring 2020.**

COMPUTER GAME DESIGN II

This course expands on the fundamental computer game concepts and techniques introduced in CSC 220, Computer Game Design I. It advances use of the C# programming language to animate and handle interactions with the game environment, game elements and the players. Special emphasis will be given to ensuring good game performance. Physical principles of mechanics and lighting will be enlarged to include more natural movement, interaction among objects such as wind and lighting with shading and textures. Computer programming scripts will interact in advanced ways with objects composed of curves, and coverings such as clothed human actors in the game. Prerequisite: CSC 220 or permission of the instructor.

CSC 225-01B T/R 8/26-12/17 10:10-11:30am SRC

CSC 225-S01 ONLINE 8/26-12/17

No class 10/15 & 11/28

WEB APPLICATION DEVELOPER CREDENTIAL

This credential is designed to prepare students for a career in Web Application development. This 16-credit program is designed to fit within SUNY Ulster's Network A.S. Computer Science degree program. The program curriculum is made up of two courses in Computer Science and two courses in Web Development.

WEB APPLICATION DEVELOPMENT I

This course explores the web development processes and tools used to support the creation of websites and web applications. Students explore HTML, CSS and JavaScript and use them to create websites and web applications hosted by a web server. Web application development frameworks will also be introduced. Through labs and projects students create both static and dynamic web content in the context of producing a professional quality web site. The course focuses on the underlying tools of web development. Prerequisite: familiarity with text file editing as determined by the instructor. **Instructor: J. Sheehan**

CSC 131-01B T/R 8/26-12/17 1:10-2:30pm SRC

CSC 131-S01 ONLINE 8/27-12/18

No class 10/15 & 11/28

WEB APPLICATION DEVELOPMENT II

This course will be offered spring 2020.

MOBILE APPLICATION DEVELOPER CREDENTIAL

This credential is designed to prepare students for a career in developing mobile applications for tablets and smartphones using both the Android and Apple iOS Operating Systems. This 16-credit program is designed to fit within SUNY Ulster's A.S. Computer Science degree program. The program curriculum is made up of two courses in Computer Science and two courses in Mobile Application Development.

ANDROID APP DEVELOPMENT

This course prepares the student to be a professional Android software developer. It is based on an app-driven approach. Mobile system concepts specific to Android are presented in the context of complete working Android apps, rather than using sample code snippets. The student is expected to construct these applications and test them in a simulated mobile device environment. Concepts and techniques introduced in this course include: fundamentals of the Android development environment, concepts and structure of the Android application environment Graphical user interface conventions and graphical concepts. Remote access to information using industry standard protocol, Access to relational data stored on the Android device (via SQLite or equivalent) Animation and simple game development. Corequisite: CSC 180 or permission of the instructor.

CSC 210-01B T/R 8/26-12/17 2:40-4pm SRC

CSC 210-S01 ONLINE 8/26-12/17

No class 10/15 & 11/28

APPLE iOS DEVELOPMENT

such as the iPhone and iPad using Swift, a new programming language from Apple. For a full course description refer to catalog at catalog.sunyulster.edu. **This course will be offered spring 2020.**

WEB DEVELOPMENT MINI BOOTCAMP

Each course in this mini bootcamp delivers real-world skills essential in website development. Courses can be taken separately based on your previous experience, but no experience is necessary. Taken all together, these courses will provide a solid foundation in website development and the holistic business perspective one needs to implement a truly effective online business strategy, for your own project or for clients.

All our instructors are local, experienced professionals in the field of website development and technology, and are passionately involved in growing the local tech community. The technology skills presented in these courses are current, relevant to today's job market, and based on industry best practices.

INTRODUCTION TO INFORMATION ARCHITECTURE/WEBSITE PLANNING

Not all websites are created equal. For your online business presence to yield maximum benefit to your business, all content on the site must be designed to communicate value to your ideal customer in an easy and natural way. In this course, students will learn how to define and plan their website content for the optimal conversion to business goals. This course covers: content blocks and flow, user journey, graphic branding, calls to action, online marketing strategy, mockups and wireframes.

DCB 2170 R 9/5-26 6-9pm KSU \$399

WEBSITE DEVELOPMENT I WEBSITE CONSTRUCTION PRINCIPLES HTML5 & CSS

Students are provided with a hands-on introduction to the universal architecture of the web. This course covers website construction with HTML5 and CSS, file structure and hierarchy, design and usability concepts, accessibility-conscious coding, and website hosting and administration. Students will learn website development fundamentals hands-on by building a simple, professional-class website in class.

DCB 2171 M 9/23-10/28 6-9pm KSU \$499

No class 10/14

WEBSITE DEVELOPMENT II MULTIPAGE WEBSITES, CSS STRATEGIES

Students will extend their knowledge of HTML5 & CSS in building multi page websites. Students will explore CSS strategies for managing multi-column layout, responsive design principles, and how to code a website from a design mockup. The course will also cover CSS drop-down menus, tables, forms, and embedded media. Prerequisite: Website Development - Part I or equivalent knowledge (instructor-approved).

DCB 2172 M 11/4-12/9 6-9pm KSU \$499

WEBSITE DEVELOPMENT III BUILDING BLOCKS OF DYNAMIC WEBSITES

Students will discover the power of dynamic website coding with an introductory examination of PHP and MySQL. In this course, students will implement basic dynamic functions with PHP, and will hand-code a simple PHP-MySQL application to produce a dynamically-generated blog page. Students will examine similarities between their application and open source Content Management Systems like WordPress, and use what they learned to migrate an existing WordPress website. Prerequisite: Website Development II or equivalent knowledge (instructor-approved).

Students must bring a laptop to class.

DCB 2225-01 M 1/6-2/10 6-9pm KSU \$499

No class 1/20

WEB DEVELOPMENT INFO SESSIONS

Learn about the options for web development training.

DCB 2167	W	8/21	6:30-7:30pm	KSU	FREE
DCB 2167	W	8/28	6:30-7:30pm	KSU	FREE
DCB 2167	W	9/4	6:30-7:30pm	KSU	FREE

INTRODUCTION TO JAVASCRIPT & JQUERY

This course is designed for JavaScript novices who have little or no experience with the language. Students will learn the structure of JavaScript variables, scope, control flow and functions. Students will create code that interacts with DOM and adds interactive behavior to a website. The course will discuss best practices and introduce jQuery - a widely used JavaScript library. Prerequisite: knowledge of HTML and CSS or Website Development II.

DCB 2173 R Spring 2020 6-9pm KSU \$399

WEBSITE OPTIMIZATION FOR GOOGLE

This course examines the interplay between clear business messaging and search engine optimization. Principles covered include: Niche Service, Location, Speed, Proper Website Structure, Blogs, Target Keywords, Tags, Metadata, Google Analytics basics, Google Search Console basics, AdWords basics and Tips and Tricks.

DCB 2174 R 10/3-24 6-9pm KSU \$399

PRACTICAL APPROACH TO USER EXPERIENCE/ USER INTERFACE DESIGN

Learn the practical side of UX/UI design. UX/UI stands for User eXperience and User Interaction. User Interface design maximizes the value of the software application for customers and for the business. It is imperative that organizations and designers understand fundamentals. First, design is more than the appearance, it's the entire user experience. Second, moderated user research must be woven into the design process.

Get introduced to User Centric Design and its application across different work environments and industries. Understand how to approach web and application design from the UX point of view. Explore the different areas of expertise in UX. Learn to identify design problems and work through the basic steps of the UX design process. Get hands-on experience creating User Personas and practice how to use them in your design process.

This course is geared towards graphic designers, web designers, web developers as well as entrepreneurs looking to build their portfolio.

Instructors: Y. Ovchinnikova & M. Reyf

ART 273 T 8/27-12/17 3-6pm SRC \$626

No class 10/15 • (credit-bearing course)

DCB 2296 T 8/27-12/17 3-6pm SRC \$626

No class 10/15 • (non-credit bearing course)