



Program of Study:
 NWCCD Computer Science Teacher Endorsement

<i>CURRICULUM SEQUENCE for full-time students -- courses may also be taken one per semester:</i>		
Fall Semester 1 st Year		Cr Hrs
INET-1580	Web Authoring (Online or Hybrid)	3
COSC-1010	Introduction to Computer Science (Online or Hybrid)	4
COSC-2050	Intro to SQL (Online or Hybrid)	3
TOTAL FALL SEMESTER		10
Spring Semester 1 st Year		Cr Hrs
INET-1650	Web Programming I (Online or Hybrid)	3
	Computer Science Elective*	3
TOTAL SPRING SEMESTER		6
TOTAL PROGRAM CREDITS		16

*** Electives**

INET-1820	3 credits	Scripting Languages I (Online or Hybrid)
INET-2000	3 credits	Web Programming II (Online)
COSC-1030	4 credits	Computer Science I (Online)
ITEC-2360	3 credits	Ed Tech Theory and Application

Course Descriptions

INET-1580: Web Authoring

This course covers the fundamental concepts and practices of creating web content. Students will begin by developing a basic web page and move on to developing a basic website. Topics include: organizing content; working with page layout; writing well-formed, valid HTML, working with cascading style sheets (CSS); linking to external websites and files on the Web; This course involves hands-on web page creation giving students sufficient knowledge and confidence to design, develop and maintain quality web sites.

COSC-1010: Introduction to Computer Science

This course Introduces the fundamental concepts of programming from an object-oriented perspective. Topics include simple data types, control structures, array and string data structures, algorithm development, and debugging techniques. This course emphasizes computational thinking, fundamental programming skills, and good software development principles in the context of a language that supports the object-oriented paradigm.

COSC-2050: Introduction to SQL

This course offers students an extensive introduction to data server technology and covers the concepts of relational databases, SQL, and SQL programming. Students will write SQL statements create tables, insert data, update data, delete data and write queries that utilize one to many tables. This course utilizes applications widely used in industry. Assignments and projects will utilize real world datasets ranging from a DVD rental company database to a database of homes for sale. Students will also have the opportunity to identify their own dataset, load the dataset and run reports against their dataset.

INET-1650: Web Programming I

This course teaches students the JavaScript programming language. Students will learn about such topics as statements, comments, variables, conditions, loops, functions, and arrays. The course will focus on client-side JavaScript and the manipulation of the web page DOM and canvas. Students will learn to write web applications that process and report data based on user input.

INET-1820: Scripting Languages I

This course introduces the fundamental concepts of programming from a scripting language perspective to students with little or no programming experience. Students write small programs to accomplish useful tasks in a variety of popular scripting languages. In addition, students develop confidence working in both Windows and Unix-like based systems.

INET-2000: Web Programming II

This course covers advanced JavaScript application development topics. Topics covered include AJAX calls, web services, game loops, event driven programming, local storage, and remote storage

containers. This course will also review leading JavaScript UI libraries, a key component of professional front-end development.

COSC-1030: Computer Science I

This course continues the introduction to the methodology of programming from an object-oriented perspective. Through the study of object design, this course introduces the basics of human-computer interfaces, graphics, and the social implications of computing with an emphasis on software engineering.

ITEC-2360: Ed Tech Theory and Application

This course is an introduction to the theories and hands-on applications of appropriate and effective uses of technology for teaching and learning. Course experiences include hardware/software selection and use, distance education, adaptive technology, integrated applications, and multimedia applied to all areas of education.