

# IT Web Software Developer

## Associates of Applied Science

Prepares learners to design and develop desktop and web software using leading programming languages and related technologies. Learners are also exposed to hardware, networking and blockchain programming.

## Program Outline

TERM 1		
Course #	Course Title	Credits
1080119500	<p>Written Communication</p> <p>Develops writing skills which include prewriting, drafting, revising, and editing. A variety of writing assignments is designed to help the learner analyze audience and purpose, research and organize ideas, and format and design documents based on subject matter and content. Also develops critical reading and thinking skills through the analysis of a variety of written documents.</p>	3.00
1015211500	<p>Database Fundamentals</p> <p>Students learn the fundamental concepts and applications of relational database tables using a hands-on approach. Topics include database architectures, data structures, planning, creation, inquiry, updating, input and output forms (reporting), and importation of data from an outside source for use in databases.</p>	3.00
1015411500	<p>Office Applications Associate</p> <p>This course explores Microsoft Word, Excel, and Outlook to an intermediate level. This course is aligned with the Microsoft Office Specialist: Associate (Office 2019) certification, which includes MO-100: Microsoft Word, MO-200: Microsoft Excel, and MO-400: Microsoft Outlook (Office 2019) certification exams.</p>	2.00
1015411000	<p>IT Basic Skills</p> <p>This course explores online Internet fundamentals, computer basics, and common MS Office application features.</p>	1.00
1015212100	<p>Blockchain Basics</p> <p>This course explores blockchain technology basics including the fundamentals of how blockchains work and the implications the technology has on society.</p>	1.00
1015011400	<p>Network+ Fundamentals</p> <p>This course explores network cabling and hardware devices, switching and routing, security, addressing, Ethernet and wireless, LANs and WANs, operations and management, and optimization and troubleshooting. This course is aligned with the CompTIA Network+ (N10-008) certification exam.</p>	3.00
1015417700	<p>Web Programming Fundamentals</p> <p>Introduces the learner to the principles of web page development. In this course the students will learn to develop static web pages that contain text, images, and videos. Students will also link multiple web pages to produce a complete website.</p>	3.00
TERM 2		
Course #	Course Title	Credits

Course #	Course Title	Credits
1015212000	<p>Introduction to Programming</p> <p>Introduces the learner to programming concepts using structured logic and basic concepts related to computer programming and program development. Programs will be developed using sequential, selection, and looping control structures, functions, arithmetic calculations.</p>	3.00
1080413400	<p>Mathematical Reasoning</p> <p>An activity based approach is used to explore numerical relationships, graphs, proportional relationships, algebraic reasoning, and problem solving using linear, exponential and other mathematical models. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. This course is not designed for Science, Technology, Engineering, or Math (STEM) students and/or others who require calculus. Prerequisite: 7785478000 Principles of College Math (C or better) or Accuplacer Algebra score <math>\geq 35</math> or UW Math Placement Basic Math Skills score <math>\geq 250</math> or ACT Mathematics score <math>\geq 18</math> or Tailwind Math College Math Fund score <math>\geq 16</math>.</p>	3.00
1080919500	<p>Economics</p> <p>With a focus on contemporary issues, this introductory course covers cost-benefit analysis, economics systems of the world, globalization, supply and demand, market structures, the labor market, economic growth, unemployment, inflation, business cycles, money, and government economic policy. The course strives to help students improve their individual and household decision-making, understand business decision-making, comprehend the current national and international economic issues and policies, and critically evaluate government response to economic concerns.</p>	3.00
1015214600	<p>Programming 2</p> <p>Further develops concepts introduced in Introduction to Programming and explores more advanced topics such as methods, classes and arrays. Prerequisite: 1015212000 Introduction to Programming (C or better).</p>	3.00
1015220000	<p>Decentralized Finance (Defi)</p> <p>This course explores blockchain technology basics including the fundamentals of how blockchains work and the implications the technology has on society. Prerequisites: 1015212100 Blockchain Basics (C or better) and 1015417700 Web Programming Fundamentals (C or better) and 1015212000 Introduction to Programming (C or better) and 1015214600 Programming 2 (C or better).</p>	3.00

### TERM 3

Course #	Course Title	Credits
1080119600	<p>Oral Interpersonal Communication</p> <p>Focuses upon developing speaking, verbal and nonverbal communications, and listening skills through individual presentations, groups activities, and other projects.</p>	3.00
1015218300	<p>Interactive Web Programming</p> <p>Students learn to create interactive webpages that respond to user input. Prerequisites: 1015212000 Introduction to Programming (C or better) and 1015417700 Web Programming Fundamentals (C or better).</p>	3.00
1015222000	<p>Non-Fungible Tokens (NFTs)</p> <p>This course covers the tools and development of non-fungible tokens (NFTs) and how they can be used on the blockchain. Prerequisites: 1015212100 Blockchain Basics (C or better) and 1015417700 Web Programming Fundamentals (C or better) and 1015212000 Introduction to Programming (C or better) and 1015214600 Programming 2 (C or better).</p>	3.00
1015216000	<p>Programming 3</p> <p>Further develops concepts introduced in Programming 2 and explores more advanced topics such as Graphical User Interfaces and databases. Prerequisite: 1015214600 Programming 2 (C or better).</p>	3.00

Course #	Course Title	Credits
1080926000	<p>Introduction To Philosophy</p> <p>Introduces fields of philosophy, philosophical reasoning, and the history of philosophy. Developed the ability to think, speak, argue, and write critically about complex and general issues. Topics vary and may include cross-cultural philosophies, epistemology, metaphysics, ethics, logic and critical reasoning, as well as clarification about the roles and philosophy, religion, and science.</p>	3.00
<b>TERM 4</b>		
Course #	Course Title	Credits
1080919900	<p>Psychology of Human Relations</p> <p>Focuses on improving personal and job-related relationships through understanding and applying sound psychological principles. Topics include self-concept, motivation, emotions, stress management, conflict resolution, and human relation processes.</p>	3.00
1015221000	<p>Smart Contracts</p> <p>This course covers the tools and development of smart contracts that run on the blockchain. Prerequisites: 1015212100 Blockchain Basics (C or better) and 1015417700 Web Programming Fundamentals (C or better) and 1015212000 Introduction to Programming (C or better) and 1015214600 Programming 2 (C or better).</p>	3.00
1015223000	<p>Smart Contracts 2</p> <p>This course continues the exploration of smart contract technology from the smart contracts 1 course and covers additional strategies, techniques, and practices for writing and deploying smart contracts on the blockchain. Prerequisite: 1015221000 Smart Contracts (C or better).</p>	3.00
1015215500	<p>e Portfolio Administration</p> <p>Students will design and create an e-portfolio. This portfolio will contain information about personal achievements in the field of Information Technology as well as sample offerings of the work completed as part of their coursework while attending Nicolet College. The e-portfolio will take the form of a personal/professional website that will be implemented on a web server for review. Prerequisites: 1015218300 Interactive Web Programming (C or better) (concurrent enrollment allowed) and 1015216000 Programming 3 (C or better) (concurrent enrollment allowed) and 1015212500 Database Design and Implementation (C or better) (concurrent enrollment allowed).</p>	3.00
1015416500	<p>Project Management</p> <p>This course explores project management principles and practices, including project initiation, project team roles and responsibilities, the Work Breakdown Structure (WBS), project schedule creation, resource planning and management, project budget and risk plan definition, project communications, change request processing and procurement documents, and project tools and documentation. This course is aligned with the CompTIA Project+ certification exam.</p>	3.00

**Total Credits: 61.00**

Talk with a Success Coach about the program outline. Together, you will determine if credits you've already earned satisfy any requirements, discuss possible alternative courses, and choose the best classes if you're thinking of transferring.

## At A Glance

## How You'll Learn

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## Program Tuition\*

\$10,947

\*Total cost for degree completion is estimated by current course requirements, books, and supplies. Tuition and fees are set by the Wisconsin Technical College System and subject to change.

Financial Aid Eligible

► [Potential Indirect Costs](#)

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## What You'll Learn

- Plan web-based solutions
  - Design web application
  - Build front-end of web-based software applications
  - Build back-end of web-based software applications
  - Integrate database technologies
  - Develop technical documentation for web applications
  - Test web application
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## Transfer Opportunities

Take a look at our transfer agreements to seamlessly transfer your degree to a 4-year university.

[LEARN MORE ABOUT TRANSFERRING](#)

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## Your Potential Careers

- Web Programmer
  - Web Analyst
  - Web Developer
  - Web Designer
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## Median Annual Salary

\$43,504	\$47,452	\$52,839
Local	State	National

Lightcast 2023.1

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## Get Started

Your application can be submitted online, it takes just a few minutes to complete.

[APPLY NOW](#)