COMPUTER NETWORKING SYSTEMS

Program Description
The Computer Networking Systems program prepares graduates for careers in the rapidly growing and changing field of IT. Students are taught current technologies and skills to architect, support, build, and maintain enterprise networks and systems. Those technologies include virtualization, IT security, directory services, network and systems automation, as well as routing and switching.

Coursework includes Microsoft and Linux operating systems, related network support services featuring Cisco® Academy curriculum, and desktop and server hardware. Skills in coding, computer logic, and data communications are developed as well. Interpersonal soft-skills are emphasized in all courses.

Dunwoody College of Technology: a non-profit, private technical college since 1914.

<table>
<thead>
<tr>
<th>Credential Earned</th>
<th>AAS Degree</th>
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<tr>
<td>Classes Offered</td>
<td>Day</td>
</tr>
<tr>
<td>Length of Program</td>
<td>2 years (4 semesters)</td>
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<td>Available Starts</td>
<td>Fall Semester; Spring Semester</td>
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<tr>
<td>Further Study</td>
<td>Bachelor’s Completion Degree in Computer Systems Analysis or Applied Management with a concentration in Management Information Systems (MIS)</td>
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Degree Requirements

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CNTS1111</td>
<td>Computer Systems</td>
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<tr>
<td>CNTS1121</td>
<td>Network Fundamentals</td>
</tr>
<tr>
<td>CWEB1010</td>
<td>Introduction to Web Development</td>
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<tr>
<td>CWEB1110</td>
<td>Programming Fundamentals I</td>
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<tr>
<td>CNTS1210</td>
<td>Server Systems I</td>
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<td>CNTS1230</td>
<td>Network Systems</td>
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<td>CNTS2240</td>
<td>Administrative Scripting</td>
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<tr>
<td>CNTS1220</td>
<td>Routing &amp; Switching I</td>
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<td>CNTS2111</td>
<td>Server Systems II</td>
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<td>CNTS2130</td>
<td>Virtualization</td>
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<td>CNTS2120</td>
<td>Routing &amp; Switching II</td>
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<td>CNTS2211</td>
<td>Enterprise Application Administration</td>
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<td>CNTS2223</td>
<td>Open Source Software</td>
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<tr>
<td>CNTS2250</td>
<td>Career Preparation</td>
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<tr>
<td>MATH1250</td>
<td>Boolean Algebra</td>
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<tr>
<td>MATH1050</td>
<td>Algebra, Trigonometry &amp; Geometry</td>
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<tr>
<td>COMM1150</td>
<td>Interpersonal Communication</td>
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<tr>
<td>WRIT2010</td>
<td>Technical Writing</td>
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<td>Diversity Elective</td>
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Common Job Titles
- IT Support Analyst
- Technical Analyst
- Network Support
- IT Professional
- Network Engineer
- IT Support Specialist

Recent Employers
- American Spirit Corporation
- Best Buy
- Nagios
- Netrix IT
- United Airlines
- U.S. Bank

Salary Data
- $61,150* Annual Average Salary

Placement Rate
- 91% **

How to Apply
- dunwoody.edu
- 612.374.5800
- info@dunwoody.edu

**Data reflects placement for AY2016-17 graduates indicating employment in their field of study within 6 months following graduation. Full data calculations are available for review during College open hours Monday through Friday 8 a.m. to 4 p.m. CT at Career Services or contact careerservices@dunwoody.edu
AY2018-19 Revised: 6.18.18
Course Descriptions

CNTS1111 Computer Systems, 4 cr.
Apply electronic theory, Boolean logic, utilization of hex editors and assembly language to understand the underpinning technologies that make computers systems work. Maintenance and repair of computer operating systems, hardware, peripherals, and component selection/installation for machines commonly found in a business.

CNTS1121 Network Fundamentals, 3 cr.
Concept and terminology introductions, data communications in a business environment. Client-server networking; communication hardware, software, and basic security is introduced. Services and models supporting data communications interoperateability introduced. Configure and troubleshoot basic network connections and the hardware/software associated.

CWEB1010 Introduction to Web Development, 3 cr.
Hypertext Markup Language (HTML). Basic page structure, tags, link, text formatting, forms, tables, and debugging with trouble-shooting skills. Cascading Style Sheets (CSS), advanced formatting, and layout. Integration of web scripting languages (like Javascript) into existing web pages to increase user-friendliness and functionality. Creation of scripts for new pages.

CWEB1110 Programming Fundamentals I, 4 cr.
Basic programming principles like data types, variables, expressions, operators, Boolean logic, algorithm creation, flowcharts. Structured programming and programming logic constructs (sequence, selection, and loops). Abstraction, modularization, dynamic and static data-structures, object-oriented and event driven programming.

CNTS1210 Server Systems I, 5 cr.
Install, configure, maintain, and manage the primary services in the Microsoft Windows Server operating system. Introduction to the sharing of system resources, remote administration techniques to facilitate efficient and effective management of business computer systems.

CNTS1230 Network Systems, 4 cr.
Expansion of concepts and terminology of business data communications and how they apply to the business environment. Intermediate to advanced client-server networking concepts, including its associated networking hardware, addressing and services. Logical addressing, IP routing, and network protocols. Installation and configuration of client-server networking systems.

CNTS2240 Administrative Scripting, 3 cr.
Programming techniques that apply to managing computer systems and networks. Programming and its best practices, methods of code writing, and development of real world scripts used to manage enterprise networks.

CNTS2220 Routing & Switching I, 5 cr.
Concepts and application of bridging, switching, and routing in an industry-standard networking environment. Install, configure, and manage networks, routers, and switches to facilitate basic network communication architectures. Portions of this course help to prepare for the Cisco Certified Networking Associate (CCNA) exam.

CNTS2211 Server Systems II, 5 cr.
Install, configure, maintain, and manage directory services for the network infrastructure including server deployment, terminal services, web services, network application services, planning, designing, and business continuity.

CNTS2213 Virtualization, 3 cr.
Install, configure, maintain, and manage a variety of virtualization software; examine the underlying principles of virtualization; create a virtual IT infrastructure; advantages and disadvantages of moving to a virtualized environment; comparison of major virtualization software systems.

CNTS2210 Routing & Switching II, 5 cr.
Advanced concepts and application of bridging, switching, and routing in an industry-standard networking environment. Practice advanced business network communication architectures. This course helps to prepare for the Cisco Certified Networking Associate (CCNA) exam.

CNTS2221 Enterprise Application Administration, 3 cr.
Install, configure, maintain, and manage Microsoft Exchange Server (email) and the considerations needed to optimize Exchange Server deployment. Managing and maintaining databases and multidimensional databases on Microsoft SQL Server. Development and deployment of SharePoint sites, security, database connectivity; administer and monitor SharePoint sites for use in a business setting.

CNTS2223 Open Source Software, 4 cr.
Install, configure, maintain, and manage a wide variety of Open Source Software (OSS) with an emphasis on common web, file and database servers found in industry; the history of the open source movement. Configure OSS operating systems to support common client-servers, Web hosting, and other services commonly found at the enterprise and ISP levels of industry. In-depth coverage of technologies related to hosting websites including programming language support, database support/connectivity, and remote access.

CNTS2250 Career Preparation, 1 cr.
Design a business resume, cover letter and thank you letter; implement a job search strategy; and submit resume, cover letter and thank you letter in search of an entry level job. Assemble artifacts for a student portfolio, create the portfolio, and present it to industry professionals.

MATH1250 Boolean Algebra, 3 cr.
Binary, octal and hexadecimal number systems. Boolean algebra and mapping.

MATH1050 Algebra, Trigonometry & Geometry, 3 cr.
Principles of algebra, geometry and trigonometry used in the context of a technical setting. Problem-solving strategies are developed and applied to technology.

COMM1150 Interpersonal Communication, 3 cr.
Analyze the process of interpersonal communication as a dynamic and complex system of interactions. Integrate interpersonal communication theory into work, family and social relationships. Apply fundamental tools needed to provide quality customer service. Decision making, problem solving, and managing customer service processes are emphasized.

WRIT2010 Technical Writing, 3 cr.
Technical writing applications are studied for format, style, voice, and point of view; considered for purpose, audience, and subject. Critical thinking and developed expertise are employed to analyze, interpret, evaluate, summarize and generate various technical documents, individually and within teams.