



MADISON
AREA | TECHNICAL
COLLEGE

**INFORMATION
TECHNOLOGY**

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How to Reach Us

In Person

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By Mail

Madison College – IT Department
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Madison, WI 53704

Email

itdept@madisoncollege.edu

Web

<https://it.madisoncollege.edu/>

Phone

608-246-6800 Ext. 8
800-322-6282 Ext 6800
Deaf/hh: use 711 (relay)

This brochure and more can be found on the Information Technology website:

<https://it.madisoncollege.edu/>

Associate Degree Programs

IT – Cloud DevOps Specialist

As more people use cloud storage and computing, the need to provide customer service grows. Learn the fundamentals of managing these operating systems to help businesses and customers alike. We are the first two-year college in the Midwest to offer this program!

Program Information

With an associate degree from Madison College in IT-Cloud DevOps, you will learn the fundamentals of architecture, deployment, management, and operations on leading cloud computing platforms.

Valuable skills sought by employers including cloud-based identity management, networking, infrastructure migration and management, application deployment and automation, as well as security and cost controls are at the core of this program. The IT-Cloud DevOps Specialist focuses on the Amazon AWS and Microsoft Azure cloud environments. The virtual computing capability and cloud services offered by these two industry leaders are revolutionizing the way business of all sizes approach their information technology needs.

Students will Learn

Through classroom instruction, extensive hands-on labs, and group projects students will become proficient in computing infrastructure and applications in cloud-based systems. As part of this program, students will deploy and configure virtual machines, networks, VPN gateways, storage, and web applications as well as configure directory and identity management services. Auditing and security in cloud scenarios are explored in addition to fundamental cloud business practices. Use of scripting and templates to build repeatable, easily modified virtual infrastructure is emphasized throughout the course culminating with the capstone Cloud Automation/DevOps course.

Typical Job Duties

Cloud DevOps Specialist graduates will support a wide range of services in both public cloud and on-premises infrastructure. With experience, graduates will be positioned for key roles within enterprises of all sizes managing cloud infrastructure. Typical job duties range from deployment and management of cloud-based infrastructure to meet business needs to working with application developers in migrating and managing critical business applications hosted by Amazon, Microsoft, and other cloud vendors. Cloud systems are quickly evolving, require continuing education to stay proficient and are at the forefront of modern information technology systems.

Career Outcomes

- Cloud System Administrator
- Cloud Support Associate
- Cloud Support Engineer

Recent Employers

- American Family Insurance, CUNA, Blain's Farm & Fleet, Cascade Asset Management, TDS, York Solutions, Zendesk

More Information

<https://madisoncollege.edu/academics/programs/cloud-support-associate>

Special Note

Courses core to the IT-Cloud DevOps Specialist program will only be offered during the daytime for Students accepted in the spring term.

Recommended Two-Year Course Progression for IT – Cloud DevOps Specialist

63 credits

Semester 1 17 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Data Communications 10-150-104 (3 credits)	Intro to Cloud Computing 10-157-101 (3 credits)	AWS Administration ^f 10-157-141 (3 credits)	Azure Administration ^s 10-157-130 (3 credits)
Enterprise Client 10-154-184 (3 credits)	Windows Server 1 10-154-171 (3 credits)	VMware Certified Pro (VCP) 10-157-135 (3 credits)	
	Linux Server 1 10-154-190 (3 credits)	Elective (3 Credits)	Elective (3 Credits)
Introduction to Databases 10-156-124 (3 credits)	Python Scripting 10-152-109 (3 credits)	Advanced Scripting for Cloud ^f 10-157-123 (3 credits)	DevOps ^s 10-157-155 (3 credits)
IT Sec Awareness-10-151-102(1cr)			Cloud Internship 10-157-196 (3 credit)
Exploration of IT-10-107-111 (1cr)		Job Search Prep-10-107-175 (1cr)	
Written Communication ² 10-801-195 (3 credits)	Oral/Interpersonal Comm ² 10-801-196 (3 credits)	Math of Finance ² 10-804-144 (3 credits)	Contemporary Amer Society ² 10-809-197 (3 credits)
Psychology of Human Relations ² 10-809-199 (3 credits)	^f Fall Only ^s Spring Only ² See your advisor for alternate general education courses that transfer		

Color Codes for Course Types

Cloud/Virtualization	Automation	Infrastructure
Career Preparation	General Education	

Recommended Electives (6 credits total)

10-151-114	Linux Server 2	3
10-151-118	Infrastructure Automation ^f	3
10-152-120	Website Development	3
10-152-131	Agile Practices	3
10-154-172	Windows Server 2 ^s	3

Graduate Summary

Graduate Employment Report: IT – Cloud DevOps Specialist			
	2020	2021	2022
Number of Program Graduates	3	2	9
Number Surveys Returned	2	2	9
Graduates Employed	2	2	7
Related Occupation	1	1	5
Unrelated Occupation	1	1	2

Salary Trend: IT – Cloud DevOps Specialist				
	2020	2021	2022	
Full Time Employment	Full Time Salary Count	1	1	5
	Average Monthly Wage	\$6,202	\$6,039	\$6,527
	Average Hourly Wage	\$36.06	\$35.11	\$37.95
	Average Work Hours per Week	40.0	43.0	41.0

IT – Cybersecurity Specialist

Fight the battle against cybercriminals and scam artists by mastering virtual cyber defense strategies. Your training will also cover ethics and investigation practices.

Program Information

The IT-Cybersecurity Specialist associate degree program at Madison College provides comprehensive instruction in computing systems and networks that have an important impact on data confidentiality, integrity, and availability. Emphasis is placed on vigilant security awareness throughout the curriculum.

Students Will Learn

The IT-Cybersecurity Specialist program introduces the student to computer network threats and the appropriate incident response, to include defenses, countermeasures, and computer forensics. Students are exposed to scenarios reflecting the legal and ethical issues associated with information security. Extensive hands-on labs build practical experience in configuring a variety of network operating systems, firewalls, virtual private networks (VPN), packet filters and intrusion detection systems (IDS) to maximize information security in the network.

Typical Job Duties

Cyber Security Specialists will initially be involved in all facets of network installation and management. With a proven employment history, they can expect to eventually be incorporated into the information security infrastructure of the organization. Typical duties might include participation in a rapid incident response team to quickly thwart information security attacks against the organization, performing risk assessments and designing security to address those risks, designing and implementing security in network operating systems, evaluating corporate security policies, review of all project development plans to ensure compliance with security policy, evaluating and installing security tools, advising management on emerging vulnerabilities, and developing and disseminating information security awareness presentations throughout the organization.

Career Outcomes

- Cybersecurity Defense Analysis (CDA)
- Cybersecurity Defense Infrastructure Support (INF)
- Incident Response (CIR)
- Vulnerability Assessment and Management (VAM)
- Systems Analysis (ANA)
- Dynamic Applications Security Testing (DAST)
- Network Penetration Testing (NPT)

Recent Employers

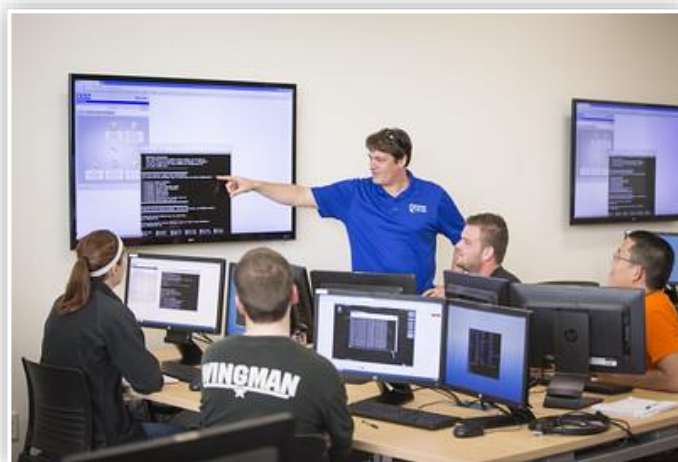
- Charter Communications
- Clifton Larson Allen
- Dept of Employee Trust Funds
- Payment Service Network
- Rhodes Bake-N-Serv
- Silgan Containers
- Summit Credit Union
- TDS
- UW Credit Union
- Vogel Bros
- WiscNet

More Information

<https://madisoncollege.edu/academics/programs/cybersecurity-specialist>

Special Note

Courses core to the IT-Cybersecurity Specialist Associate program will only be offered during the daytime for Students accepted in the spring term.



Recommended Two-Year Course Progression for IT – Cybersecurity Specialist

63 credits

Semester 1 17 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Linux Server 1 10-154-190 (3 credit)	Linux Server 2 10-151-114 (3 credits)	Incident Response 10-151-137 (3 credits)	Ntwrk Forensics & Threat Hunt 10-151-133 (3 credits)
	Perimeter Security 10-151-106 (3 credits)	Penetration Testing 10-151-164 (3 credits)	Web Application Security 10-151-142 (3 credits)
Enterprise Client 10-154-184 (3 credits)	Windows Server 1 10-154-171 (3 credits)	VMware Certified Pro (VCP) 10-157-135 (3 credits)	Security Design 10-151-168 (3 credit)
Data Communications 10-150-104 (3 credits)	Python Scripting 10-152-109 (3 credits)	Intro to Cloud Computing 10-157-101 (3 credits)	
IT Sec Awareness-10-151-102(1cr)			Cybersecurity Internship 10-151-197 (3 credit)
Exploration of IT-10-107-111 (1cr)		Job Search Prep-10-107-175 (1cr)	
Written Communication ² 10-801-195 (3 credits)	Oral/Interpersonal Comm ² 10-801-196 (3 credits)	Math of Finance ² 10-804-144 (3 credits)	Contemporary Amer Society ² 10-809-197 (3 credits)
Psychology of Human Relations ² 10-809-199 (3 credits)	^f Fall Only ^s Spring Only ² See your advisor for alternate general education courses that transfer		

Color Codes for Course Types

Security	Administration	Other
Career Preparation	General Education	

Graduate Summary

Graduate Employment Report: IT – Cybersecurity Specialist			
	2020	2021	2022
Number of Program Graduates	22	21	25
Number Surveys Returned	14	17	22
Graduates Employed	10	17	18
Related Occupation	8	16	16
Unrelated Occupation	2	1	2

Salary Trend: IT – Cybersecurity Specialist				
	2020	2021	2021	
Full Time Employment	Full Time Salary Count	7	16	16
	Average Monthly Wage	\$3,744	\$4,735	\$4,738
	Average Hourly Wage	\$21.77	\$27.53	\$28.71
	Average Work Hours per Week	42.0	40.6	40.8

IT – Data and Analytics Specialist

With an associate degree from Madison College in IT-Data & Analytics Specialist, you will have practical, applicable skills in data engineering and analytics to secure employment in this rapidly growing specialty and thrive in most technical workplaces.

Program Information

Valuable skills sought by employers include Python programming, relational database technologies/programming and data-related cloud expertise. Training blends general educational development and required IT technical skills. Graduates are prepared for data-centric jobs in information technology, government, insurance, medicine, marketing, manufacturing, service, software development, wholesale and retail sales, utilities, banking, and academics.

Typical Job Duties

Graduates of the IT-Data & Analytics Specialist are prepared to:

- Prepare data for more extensive analysis through data engineering (ETL) by writing moderately complex Python scripts.
- Discover and quantify trends in data by using industry-standard tools or writing moderately complex Python scripts.
- Solve common analytics tasks through machine learning.
- Recommend basic business solutions through a complete understanding of the data analytics life cycle.
- Communicate status and findings through professional charts and dashboards.
- Manage and store data based on usage (e.g., data lakes, relational, warehouse), both in the cloud and on-prem.
- Migrate data between data stores using Python scripts and industry-standard tools, both in the cloud and on-prem.

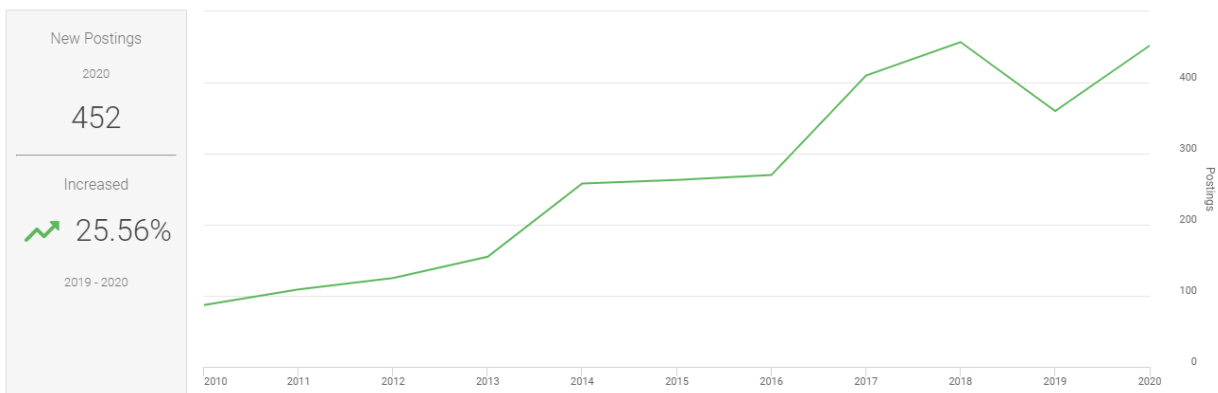
Career Outcomes

- Data Analyst
- Data Wrangler

More Information

<https://madisoncollege.edu/academics/programs/data-analytics-specialist>

Based on reports from Burning Glass, the number of jobs in the Madison College district requesting the types of data analytics skills that will be taught in the IT Data and Analytics Associate Degree program. Jobs have been growing since 2010, and even more significantly since 2016.



Recommended Two-Year Course Progression for IT – Data and Analytics Specialist

62 credits

Semester 1 16 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Python for Developers ^f 10-152-211 (3 credits)	Data Visualization ^s 10-156-133 (3 credits)	Predictive Analytics ^f 10-156-144 (3 credits)	Applied Analytics in the Cloud ^s 10-156-145 (3 credits)
Excel Beginning 10-103-133 (1 cr)	Business Statistics 10-102-104 (3 credits)	Cloud for Developers 10-152-110 (3 credits)	
Excel Intrmed 10-103-139 (1 cr)			
Introduction to Databases 10-156-124 (3 credits)	Data Engineering ^s 10-156-135 (3 credits)	UIUX and Web Accessibility 10-152-130 (3 credits)	Agile Practices 10-152-131 (3 credits)
Website Development 10-152-120 (3 credits)	SQL Database Programming 10-156-125 (3 credits)	Oral/Interpersonal Comm ² 10-801-196 (3 credits)	Elective (3 credits)
IT Sec Awareness-10-151-102(1cr)			Data Analytics Internship ^s 10-156-196 (3 credits)
Exploration of IT-10-107-111 (1cr)		Job Search Prep-10-107-175 (1cr)	
Math of Finance ² 10-804-144 (3 credits)	Written Communications ² 10-801-195 (3 credits)	Contemporary Amer Society ² 10-809-197 (3 credits)	Psychology of Human Relations ² 10-809-199 (3 credits)

^fFall Only ^sSpring Only
²See your advisor for alternate general education courses that transfer

Recommended Electives (3 credits total)

10-152-121	Advanced CSS	3
10-152-168	Advanced JavaScript	3
10-152-200	Foundations of Software Quality	3

Color Codes for Course Types

Data/Analytics	Math/Statistics	Development/Other
Career Preparation	General Education	

Below is a chart that shows the expected change in the selected job numbers from 2020-2025.

Region	2020 Jobs	2025 Jobs	Change	% Change
● United States	585,163	620,976	35,813	6%
● Madison College District	1,857	1,989	132	7%

IT – Front End Developer

Program Information

The Front-End Developer associate degree program prepares students for employment as an entry level software developer typically advertised/recruited as Front-End Engineer, JavaScript Developer, Full-Stack Web Developer. Students learn fundamental web development technologies such as HTML, CSS, and JavaScript. In contrast to our Web Developer associate degree program the front-end developer curriculum focuses on JavaScript and its vast ecosystem rather than Java, PHP, and/or C#.

Students Will Learn

Students in this program learn to build Single Page Applications (SPAs) with JavaScript and popular frameworks and libraries such as Angular, React, and others. Various Cloud and ‘Serverless’ offerings are also introduced to provide students with valuable experience in modern JavaScript software development

Typical Job Duties

- Write front-end web applications using modern JavaScript frameworks.
- Code using current JavaScript.
- Write front-end applications to access “serverless” cloud-based services and endpoints.
- Write SQL statements to retrieve/manipulate data and manipulate relation database structures.
- Apply UI/UX design principles to perform analysis to and build user-centric applications.
- Demonstrate an understanding of the ever-changing IT field and its job roles with emphasis on IT security as it applies to development.
- Work as an ethical and reliable team member using software collaboration tools.

Careers

- Front End Developer
- CSS/HTML Developer
- Web Software Developer
- Front End Accessibility
- Front End DevOps
- Front End Engineer
- Front End Architect

Recent Employers

- Dept of Revenue
- Stark Company Realtors
- TDS
- Zendesk

More Information

<https://madisoncollege.edu/academics/programs/front-end-developer>

Special Note

The core classes unique to the IT-Front End Developer program are offered only during the day. Courses core to the IT-Front End Developer program will only be offered during the daytime for students accepted in the spring term.



Recommended Two-Year Course Progression for IT – Front End Developer

60 credits

Semester 1 14 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Intro to Prog with JavaScript 10-152-119 (3 credits)	Cloud for Developers 10-152-110 (3 credits)	JS Frameworks ^f 10-152-158 (3 credits)	Adv Front End Development ^s 10-152-182 (3 credits)
Introduction to Databases 10-156-124 (3 credits)	UI/UX and Web Accessibility 10-152-130 (3 credits)	Agile Practices 10-152-131 (3 credits)	Serverless Cloud with React ^s 10-152-108 (3 credits)
Website Development 10-152-120 (3 credits)	Advanced CSS 10-152-121 (3 credits)	Elective (3 Credits)	Elective (3 Credits)
IT Sec Awareness-10-151-102(1cr)	Advanced JavaScript 10-152-168 (3 credits)	Job Search Prep-10-107-175 (1cr)	Front End Dev Internship 10-152-114 (3 credits)
Exploration of IT-10-107-111 (1cr)			
Written Communication ² 10-801-195 (3 credits)	Oral/Interpersonal Comm ² 10-801-196 (3 credits)	Math of Finance ² 10-804-144 (3 credits)	Psychology of Human Relations ² 10-809-199 (3 credits)
^f Fall Only ^s Spring Only ² See your advisor for alternate general education courses that transfer		Contemporary Amer Society ² 10-809-197 (3 credits)	

Recommended Electives (6 credits total)

10-152-130	C# Web Dev Using ASP .NET ^f	3
10-152-166	PHP Web Dev with MySQL	3
10-156-125	SQL Database Programming	3
10-152-200	Foundations of Software Quality	3

Color Codes for Course Types

Front End Dev	Website Dev	Other
Career Preparation	General Education	

Graduate Summary

Graduate Employment Report: IT Front-End Developer		
	2021	2022
Number of Program Graduates	5	14
Number Surveys Returned	3	9
Graduates Employed	2	6
Related Occupation	0	4
Unrelated Occupation	2	2

Salary Trend: IT Front-End Developer

Salary Trend: IT Front-End Developer		
	2021	2022
Full Time Employment	Full Time Salary Count	2
	Average Monthly Wage	\$3,333.33
	Average Hourly Wage	\$19.23
	Average Work Hours per Week	40

IT – Network Specialist

Program Information

The Information Technology-Network Specialist program will prepare you to install, troubleshoot, and maintain computer networks.

The IT-Network Specialist program is designed in on-going collaboration with local hiring managers and the Cisco Networking Academy.

Students Will Learn

You will gain a working knowledge of networking devices such as routers and switches, as used in deployments for both Local Area Networks (LANs) and Wide Area Networks (WANs). Additionally, you will gain first-hand experience planning, troubleshooting, and implementing wired networks, wireless networks, perimeter networks, Voice over IP (VoIP), and Software Defined Networking (SDN).

Typical Job Duties

Network Specialists will be involved in all facets of network management and operation. Typical duties include:

- Evaluation and design of products/technologies to scale the network
- Capacity management
- Creation of software programs or scripts that aid in network automation, analysis and troubleshooting utilities
- Securing the enterprise from the Internet
- User administration and event log monitoring

Certifications

The program prepares students for the following certifications:

- Cisco Certified Networking Associate (CCNA)
- Cisco Certified DevNet Associate
- Cisco CCNA-Voice

Career Outcomes

- Network Control Operator
- Network Support Technician
- Network Support Services
- Network Technician
- Network Specialist
- Network Professional
- Networking Services
- Assistant LAN Manager
- Assistant LAN Administrator
- Assistant Network Administrator

Recent Employers

- Dept of Administration
- Dept of Military Affairs
- Exact Sciences
- INOC
- Monona Bank
- Mortgage Guaranty Insurance Company

More Information

<https://madisoncollege.edu/program/network-specialist>

Special Note

Courses core to the IT-Network Specialist Associate program will only be offered during the daytime for Students accepted in the spring.



- Network Engineering Technologies
- TDS

Recommended Two-Year Course Progression for IT - Network Specialist

60 credits

Semester 1 14 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Intro to Cisco Networking 10-150-121 (3 credits)	Cisco Networking 2 ^s 10-150-122 (3 credits)	Cisco Networking 3 ^f 10-150-123 (3 credits)	Advanced Network Topics ^s 10-150-151 (3 credits)
Enterprise Client 10-154-184 (3 credits)	Wireless Topics ^s 10-150-190 (3 credits)	VoIP Conv Fundamentals ^f 10-150-150 (3 credits)	Elective (3 Credits)
Linux Server 1 10-154-190 (3 credits)	Python Scripting 10-152-109 (3 credits)	Software Defined Networking ^f 10-150-163 (3 credits)	Advanced SDN ^s 10-150-166 (3 credits)
IT Sec Awareness-10-151-102(1cr)	Windows Server 1 10-154-171 (3 credits)	Job Search Prep-10-107-175 (1cr)	Networking Internship 10-150-195 (3 credit)
Exploration of IT-10-107-111 (1cr)			
Written Communication ² 10-801-195 (3 credits)	Oral/Interpersonal Comm ² 10-801-196 (3 credits)	Math of Finance ² 10-804-144 (3 credits)	Contemporary Amer Society ² 10-809-197 (3 credits)
		Psychology of Human Relations ² 10-809-199 (3 credits)	

^fFall Only ^sSpring Only
²See your advisor for alternate general education courses that transfer

Color Codes for Course Types

Networking	Automation	Infrastructure
Career Preparation	General Education	

Recommended Electives (3 credits total)		
10-151-114	Linux Server 2	3
10-157-135	VMware Cert Prof (VCP)	3
10-157-101	Intro to Cloud Comp	3

Graduate Summary

Graduate Employment Report: IT Network Specialist			
	2020	2021	2022
Number of Program Graduates	21	22	17
Number Surveys Returned	11	16	13
Graduates Employed	8	15	11
Related Occupation	6	15	10
Unrelated Occupation	2	0	1

Salary Trend: IT Network Specialist				
	2020	2021	2022	
Full Time Employment	Full Time Salary Count	5	13	10
	Average Monthly Wage	\$4,388	\$4,049	\$5,080
	Average Hourly Wage	\$25.51	\$23.54	\$29.53
	Average Work Hours per Week	39.7	40.4	40.9

IT – System Administration Specialist

Systems administrators keep networks and workplaces running smoothly. You will become an expert in Microsoft systems and in configuring and managing organizational resources.

Program Information

The IT-Systems Administration Specialist program is a two-year Associate Degree program where students learn the fundamentals of operating system configuration, networking, and systems integration. Students will be challenged to learn Microsoft Windows system administration for both client and server systems, as well as other technologies valued by area employers.

Students Will Learn

The IT-System Administration Specialist program provides students with a strong foundation in a variety of computer systems, as well as substantial skills in cloud computing, networking and virtualization.

Students will deploy and configure virtual devices and configure virtual switches. Students get experience installing, configuring and managing servers in a virtualized environment. They will promote servers to be domain controllers, create and manage resources in Active Directory, use Group Policy, and configure DNS and DHCP. Students will learn to write scripts, as well as manage and automate on premise and cloud IT Infrastructures.

We are in close contact with area information technology employers, and our graduates are well regarded by employers. The skills you gain in the System Administration program, as well as your internship with an area employer, will prepare you for a satisfying career in information technology.

Typical Job Duties

System Administration graduates' job duties can vary greatly, depending on the needs of the organization. Typical job duties can include on premise or virtual installation, configuration and administration of client and server operating systems. Configuration and management of components of Windows Server, as well as Linux. Performing technical troubleshooting of computer systems and networks. Integration of hardware and software required to support new initiatives. Installation, maintenance, and troubleshooting of Internet connectivity for a variety of services and applications. System Administration employees may be responsible for critical system backups and plan for the restoration of computing services in the event of disasters. To be successful in this role employees should demonstrate initiative and work collaboratively with other members of an information technology team.

Certification

The program prepares graduates to test for the following certifications:

- CompTIA A+
- Microsoft Technology Associate (MTA)
- VMware Certified Professional (VCP)
- AWS Certified Solution Architect

Career Outcomes

- System Administrator
- Technical Support Services
- Help Desk
- Networking Services and Installation

More Information

<https://madisoncollege.edu/program/systems-administration-specialist>

Special Note

Courses core to the It-System Administration Specialist Associate program will only be offered during the daytime for Students accepted in the spring term.



Recent Employers

- AE Business Solutions
- City of Sun Prairie
- Exact Sciences
- Fleetworthy Solutions
- Fort Health & Rehabilitation
- Forward Health Group
- JBC Business Technologies
- MadCity Techs
- Madison Metropolitan School District
- Nelnet Diversified Solutions
- New Vision Networks
- Randstand Technologies
- Reedsburg Area Medical Center
- Regal Beloit
- State of Wisconsin
- Sun Prairie Area School District
- Web Coursework
- TDS

Recommended Two-Year Course Progression for IT – Systems Administration Specialist

62 credits

Semester 1 16 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Enterprise Client 10-154-184 (3 credits)	Windows Server 1 10-154-171 (3 credits)	Infrastructure Automation ^f 10-154-118 (3 credits)	Windows Server 2 ^s 10-154-172 (3 credits)
A+ Hardware Essentials 10-154-104 (3 credits)	IT Service Concepts 10-154-122 (3 credits)	Supporting Emerging Tech ^f 10-154-147 (3 credits)	Python Scripting 10-152-109 (3 credits)
Data Communications 10-150-104 (3 credits)	Linux Server 1 10-154-190 (3 credits)	VMware Certified Prof (VCP) 10-157-135 (3 credits)	Systems Admin Internship 10-154-198 (3 credits)
IT Sec Awareness-10-151-102(1cr)	Intro to Cloud Computing 10-157-101 (3 credits)	Job Search Prep-10-107-175 (1cr)	Elective (3 Credits)
Exploration of IT-10-107-111 (1cr)			
Written Communication ² 10-801-195 (3 credits)	Oral/Interpersonal Comm ² 10-801-196 (3 credits)	Math of Finance ² 10-804-144 (3 credits)	Contemporary Amer Society ² 10-809-197 (3 credits)
Excel Beginning 10-103-133 (1 cr)		Psychology of Human Relations ² 10-809-199 (3 credits)	
Excel Intrmed 10-103-139 (1 cr)			

^fFall Only ^sSpring Only
²See your advisor for alternate general education courses that transfer

Recommended Electives (3 credits total)		
10-151-114	Linux Server 2	3
10-157-130	Azure Administration ^f	3
10-157-141	AWS Administration ^s	3

Color Codes for Course Types

System Admin	Desktop Support	Infrastructure
Career Preparation	General Education	

Graduate Summary

Graduate Employment Report: IT System Administration Specialist			
	2020	2021	2022
Number of Program Graduates	31	31	17
Number Surveys Returned	23	21	12
Graduates Employed	22	19	8
Related Occupation	20	15	7
Unrelated Occupation	2	4	1

Salary Trend: IT Network Specialist				
		2020	2021	2022
Full Time Employment	Full Time Salary Count	18	11	5
	Average Monthly Wage	\$4,216	\$4,561	\$3,882
	Average Hourly Wage	\$24.51	\$26.52	\$22.57
	Average Work Hours per Week	40.8	41.1	41.9

IT – Web Software Developer

Most businesses and freelance professionals rely on having a good website. You will learn the fundamentals of designing interactive, secure websites and professional communication skills.

Program Information

The Web Software Developer program meets the specific skills and knowledge requirements of technical and professional jobs within the IT field for an entry-level web software developer. It is designed to meet entry-level educational needs of most segments of the IT field, which utilize a variety of computers. Training blends general educational development and required IT technical skills. Graduates are prepared for entry-level web developer jobs in government, insurance, manufacturing, service, software development, wholesale and retail sales, utilities, banking, and accounting.

Students Will Learn

Students learn required core IT technical skills in areas such as SQL, XML, XHTML, JavaScript, ES6 technology, UI/UX, Accessibility Best Practices and object-oriented systems design.

Typical Job Duties

The Web Software Developer will code and deploy applications in a cross-platform, cross-browser environment; build user interfaces and prototypes from wireframes and designs; build applications using java, html, CSS, and JavaScript; update applications to meet modern standards and requirements; consult with managerial and engineering and technical personnel to clarify program intent, identify problems, and suggest changes.

Career Outcomes

- Web Developer

Recent Employers

- Century Insurance
- CUNA Mutual Group
- Dept of Health Services
- Dept of Revenue
- Full Compass Systems
- Johnson Health Tech North America
- Madison Metropolitan School District
- Mandli Communications
- Moxe Health
- Nordic
- RenewAire
- Revature
- Sentry Insurance
- Singlewire
- Stealthbits Inc
- TDS
- UW Credit Union
- Web Coursework
- Widen Enterprises
- Zendesk



More Information

<https://madisoncollege.edu/program/web-software-developer>

Special Note

Courses core to the IT-Web Software Developer program will only be offered during the daytime for students accepted in the spring term.

Recommended Two-Year Course Progression for IT – Web Software Developer

63 credits

Semester 1 17 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Intro to Prog with JavaScript 10-152-119 (3 credits)	Java Programming 10-152-111 (3 credits)	Adv Java Programming 10-152-112 (3 credits)	Enterprise Java Programming 10-152-113 (3 credits)
Website Development 10-152-120 (3 credits)	UIUX and Web Accessibility 10-152-130 (3 credits)	Cloud for Developers 10-152-110 (3 credits)	Advanced JavaScript 10-152-168 (3 credits)
Introduction to Database 10-156-124 (3 credits)	SQL Database Programming 10-156-125 (3 credits)	Agile Practices 10-152-131 (3 credits)	
	PHP Web with MySQL 10-152-166 (3 credits)	Elective (3 Credits)	Elective (3 Credits)
IT Sec Awareness-10-151-102(1cr)			Web Software Internship 10-152-132 (3 credits)
Exploration of IT-10-107-111 (1cr)		Job Search Prep-10-107-175 (1cr)	
Written Communication ² 10-801-195 (3 credits)	Oral/Interpersonal Comm ² 10-801-196 (3 credits)	Math of Finance ² 10-804-144 (3 credits)	Contemporary Amer Society ² 10-809-197 (3 credits)
Psychology of Human Relations ² 10-809-199 (3 credits)	^f Fall Only ^s Spring Only ² See your advisor for alternate general education courses that transfer ● May be taken in lieu of Enterprise Java		
Color Codes for Course Types			
Software Dev	Website Dev	Other	
Career Preparation	General Education		
Recommended Electives (6 credits total)			
10-152-103	C# Web Dev using ASP .NET ^f ●	3	
10-152-108	Serverless Cloud with React ^s	3	
10-152-121	Advanced CSS	3	
10-152-158	JS Frameworks ^f	3	
10-152-167	Adv PHP & MySQL Web Dev ^s ●	3	
10-152-200	Foundations of Software Quality	3	

Graduate Summary

Graduate Employment Report: IT Web Software Developer			
	2020	2021	2022
Number of Program Graduates	47	26	44
Number Surveys Returned	34	17	31
Graduates Employed	24	13	28
Related Occupation	16	12	24
Unrelated Occupation	8	1	4

Salary Trend: IT Web Software Developer				
	2020	2021	2022	
Full Time Employment	Full Time Salary Count	13	10	21
	Average Monthly Wage	\$5,121	\$5,498	\$6,041
	Average Hourly Wage	\$29.77	\$31.97	\$35.12
	Average Work Hours per Week	45.0	43.2	41.7

Certificates

IT – Cisco Certified Networking Associate (CCNA)

Program Overview

The Cisco Certified Networking Associate (CCNA) certificate program is designed to prepare information systems professionals for the field of network management, design, configuration, maintenance and troubleshooting of both local area networks (LANs) and wide area networks (WANs). CCNAs are becoming increasingly important as the number of networking devices continues to increase. Students enrolling in the CCNA certificate program will be able to meet these needs, thereby effectively engaging with this growing segment of the economy. Four courses will teach students the necessary skills to make them successful in the field of data networking.

After completing the certificate courses, students will need additional preparation and practice time to successfully pass the CCNA certification exam.

IT – Java Professional Developer

Program Overview

The IT-Java Professional Developer certificate from Madison College is designed to prepare information systems professionals to use the Java programming language for web development. Three classes teach students the necessary skills to be successful in Java web development.

IT – PHP Professional Web Developer

Program Overview

The IT-PHP Professional Web Developer Certificate at Madison College is designed to prepare information systems professionals to use the PHP programming language for web development. Classes cover advanced web application features such as shopping carts, content management systems using Drupal, web forums and connecting to web services. The certificate classes teach students the necessary skills to make them successful in PHP web development.

IT – VMware Certified Professional

Program Overview

The IT-VMware Certified Professional Certificate from Madison College is designed for students who have already graduated with a degree in Computer Information Systems or Information Technology, or have significant IT industry work experience, and are seeking to gain the knowledge required to earn the VMware Certified Professional designation. The certificate provides students with the skills required to install, configure, administer, and troubleshoot VMware server virtualization infrastructures such as VMware vSphere. After completing the certificate courses, students will need additional preparation and practice time to successfully pass the VMware Certified Professional certification exams.

VMware is the industry standard and most widely used server virtualization platform. VMware runs many of the IT infrastructures of small, medium, and large businesses worldwide. The VMware Certified Professional certification designates individuals who have demonstrated superior knowledge and skill levels with VMware virtualization infrastructures. It is a highly sought-after certification for many prospective employers.

Career Pathway Certificate

IT – Service Center Technician

Program Overview

The IT-Service Center Technician Certificate from Madison College provides instruction for information systems professionals and programming students in the areas of computer hardware and software. Topics covered include installation, maintenance and troubleshooting of personal computer hardware, operating systems, and software. After completing the certificate courses, students will need additional preparation and practice time to successfully pass the CompTIA A+ certification exams.

Technical Diploma

IT – Desktop Support Technician

The IT-Desktop Support Technician program will prepare you to provide first-level technical support to resolve software, hardware, and system problems for PC users. You will develop skills to install, support, and maintain hardware and software, and to ensure that all customer requests and problems are dealt with quickly and effectively. Courses are presented in a hands-on classroom atmosphere. As a student you will be trained in hardware and software installation, configuration, and troubleshooting, basic network concepts, supporting new technologies, repairing workstations, and performing upgrades.

You will gain an understanding of how a help desk functions, and how customer service plays an important role in today’s world of technology. Career opportunities exist in all areas of the country. This program may be used to help prepare for the CompTIA A+ computer troubleshooting certification.

Recommended One-Year Course Progression for IT – Desktop Support Technician

28 credits

Semester 1 14 credits	Semester 2 14 credits
Enterprise Client 10-154-184 (3 credits)	Windows Server 1 10-154-171 (3 credits)
Data Communications 10-150-104 (3 credits)	Linux Server 1 10-154-190 (3 credits)
A+ Hardware Essentials 10-154-104 (3 credits)	IT Service Concepts 10-154-122 (3 credits)
IT Sec Awareness-10-151-102(1cr)	Excel Beginning 10-103-133 (1 cr)
Exploration of IT-10-107-111 (1cr)	Excel Intrmed 10-103-139 (1 cr)
Written Communication ² 10-801-195 (3 credits)	Oral/Interpersonal Comm ² 10-801-196 (3 credits)

Color Codes for Course Types

System Admin	Desktop Support
Infrastructure	Career Preparation
General Education	

^fFall Only ^sSpring Only

²See your advisor for alternate general education courses that transfer

Graduate Summary

Graduate Employment Report: IT – Desktop Support Technician			
	2020	2021	2022
Number of Program Graduates	34	31	12
Number Surveys Returned	3	26	11
Graduates Employed	3	11	6
Related Occupation	0	9	6
Unrelated Occupation	3	2	0

Salary Trend: IT – Desktop Support Technician				
	2020	2021	2022	
Full Time Employment	Full Time Salary Count	n/a	8	8
	Average Monthly Wage	n/a	\$4,949	\$3,229
	Average Hourly Wage	n/a	\$28.77	\$18.77
	Average Work Hours per Week	n/a	40.9	41.7

National Center of Academic Excellence in Cyber Defense

Madison College is a National Center of Academic Excellence in Cyber Defense

The increasing prevalence of cybersecurity attacks on both individuals and businesses emphasizes the need for cybersecurity professionals to protect and defend our Nation's critical infrastructure and systems. The National Centers of Academic Excellence in Cyber Defense (CAE-CD) program, co-sponsored by the National Security Agency (NSA) and the Department of Homeland Security (DHS), was established to meet this growing need for knowledgeable and skilled cybersecurity professionals within the Federal Government – and ultimately, within state and local governments and industry.

Institutions designated as CAEs in Cyber Defense:

- Are recognized by the U.S. Government for their cyber defense programs and curricula.
- Have curricula that is mapped to specified Knowledge Units, which align with the NICE
- Cybersecurity Workforce Framework, a cybersecurity language employed nationwide by educators, industry workers, and government organizations.
- Have degree programs that are a top choice for students who want to learn the necessary knowledge and skills to succeed in the cybersecurity workforce.
- Assist federal agencies by providing academic insight into cyber-related programs at DHS, NSA, and other federal agencies.
- Serve as a potential source and facilitator for government-academic researcher exchanges.
- Facilitate development of faculty and research leaders.
- Participate in a large network of cybersecurity professionals, educators, researchers, and advocates to grow the cyber field.
- Are privy to opportunities for student scholarships and grants through the



Department of Defense Cyber Scholarship Program and the Federal Cyber Service Scholarship for Service Program.

Scholarships and Financial Aid

Financial Aid

Online application is available at <http://madisoncollege.edu/financial-aid/>. Paper applications are available in the Enrollment Center on the Truax Campus, Downtown Education Center, and at all regional campuses, or call (608) 246-6170.

Scholarships

Madison College Foundation

The Foundation has disbursed more than \$8 million in financial assistance to more than 27,000 Madison College students. For more information, call (608) 246-6441. <http://madisoncollege.edu/scholarships>

External Scholarships

Hundreds of scholarships from private organizations and donors

New Student Scholarships

Ready to open those doors but aren't sure how you can afford college

Emergency Assistance Scholarships

Emergency and short-term book loans

Information Technology Specific Scholarships

GIPAW

Scholarships are intended to defray the educational costs for full-time Associate Degree IT program students

Women in IT

Available to women who are pursuing an associate degree in computer Information Technology at the MATC Truax campus. To receive the award, a student must have applied and been accepted into one of the IT associate degree programs.

Student Organizations

Wolfpack Techies

Wolfpack Techies is Madison College's only computer repair service for all students, faculty, and staff. Wolfpack Techies is comprised of students in IT degrees that are looking for more exposure and experience with computer repair.

Cyber Security Club

Cyber Security Club is a student-run organization for those interested in cyber security and information security. Students learn the technologies involved in cybersecurity and are given opportunities to practice what they learn during hands-on challenge events hosted by the club. The club also provides opportunities for its members to participate in local, regional, and national competitions. Parking and Tours at Madison College

Experience Madison College

The best way to see yourself at Madison College is by visiting campus. Tour our facilities, schedule an appointment with a recruiter, get help with your college application and more. <https://madisoncollege.edu/get-started/visit>

Parking at Madison College

For more information about parking, please visit: <https://madisoncollege.edu/parking>

Madison College Parking Regulations

All vehicles that are parked on Madison College Campuses by students must be registered by completing the online vehicle registration form on the Madison College Public Safety website. All students shall park in general parking areas and must be parked in a **marked stall**. Parking along curbs or in the grass is **NOT** allowed on Madison College Campuses. Vehicles found in violation are subject to citation and/or towing at the owner's expense without warning. **Unpaid citations may also result in suspension of the vehicles registration.**

To learn more about parking and to register your vehicle please visit the Public Safety website and select parking information.
<https://madisoncollege.edu/public-safety>

