INFORMATION TECHNOLOGY

MADISON
AREA | TECHNICAL
COLLEGE

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How to Reach Us

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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

64 credits

Semester 1 18 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Data Communications 10150104 (3 credits)	Intro to Cloud Computing 10157101 (3 credits)	AWS Administration[f] 10157141 (3 credits)	Azure Administration[s] 10157130 (3 credits)
Enterprise Client 10154184 (3 credits)	Windows Server 1 10154171 (3 credits)	Virtualization Technology 10157135 (3 credits)	
IT Sec Awareness-10151102 (1cr)	Linux Server 1 10154190 (3 credits)	Elective (3 Credits)	Elective (3 Credits)
Introduction to Databases 10156124 (3 credits)	Python Scripting 10152109 (3 credits)	Advanced Scripting for Cloud[f] 10157123 (3 credits)	DevOps[s] 10157155 (3 credits)
AI Fundamentals-10156105 (1cr)			Cloud Internship 10157196 (3 credit)
Exploration of IT-10107111 (1cr)		Job Search Prep-10107175 (1cr)	
Written Communication[2] 10801195 (3 credits)	Oral/Interpersonal Comm[2] 10801196 (3 credits)	Math of Finance[2] 10804144 (3 credits)	Contemporary Amer Society[2] 10809197 (3 credits)
Psychology of Human Relations[2] 10809199 (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)

10151114	Linux Server 2	3
10151118	Infrastructure Automation[f]	3
10152120	Website Development	3
10152131	Agile Practices	3
10154172	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

Wage the war against modern cyber adversaries by mastering the tools and techniques needed to analyze, investigate, protect, and defend your organization's valuable data assets.

Program Information

With an associate degree from Madison College in IT-Cybersecurity you will be provided with comprehensive instruction and the hands-on experience you need to meet the challenges facing professionals responsible for defending on premise and cloud-based assets.

Valuable skills sought by employers include security vulnerability scanning, scripting, penetration testing, web application vulnerability testing, security log data collection and analysis, team collaboration, and cybersecurity oriented critical thinking.

Students Will Learn

Through classroom instruction, extensive hands-on labs, and group projects students will become proficient in countering the threats, challenges and risks faced in protecting and defending the assets of a modern enterprise network. As part of this program students are exposed to real world scenarios reflecting everyday issues associated with the offensive and defensive aspects of cybersecurity. Extensive hands-on labs build practical experience using the most up to date open-source tools and threat modeling frameworks in the areas of penetration testing, vulnerability analysis, Incident response, and threat hunting all while studying the tactics and techniques used by real world adversaries.

Typical Job Duties

- Participating as a team member on the security operation center to detect real time attacks on an organization.
- Take part in a rapid incident response team to quickly thwart information security attacks against the organization.
- Performing vulnerability assessments to prevent exploitation and ensure proper adherence to compliance requirements.
- Analyzing emerging threats and advising management on ways to mitigate those threats and gain detection visibility.
- Developing and disseminating information security awareness presentations throughout the organization.

Career Outcomes

- Cybersecurity Defense Analyst
- Cybersecurity Defense Infrastructure Support Specialist
- Incident Responder
- Vulnerability Assessment Analyst
- Cyber Defense Forensics Analyst
- Threat/Warning Analyst
- Exploitation Analyst

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
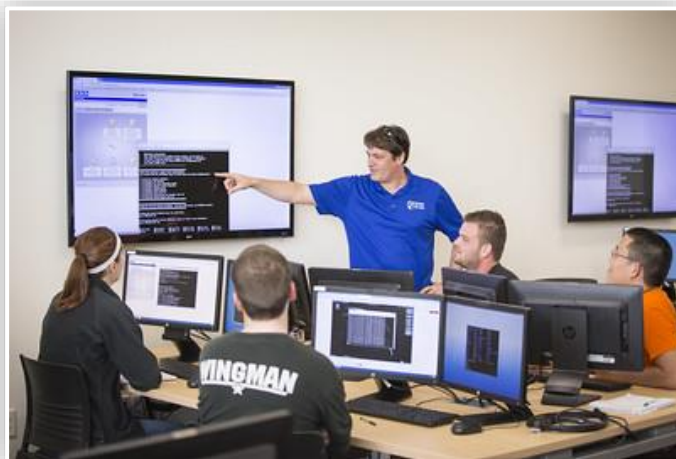
Special Note

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   64 credits

Semester 1 18 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Linux Server 1 10154190 (3 credit)	Linux Server 2 10151114 (3 credits)	Incident Response 10151137 (3 credits)	Ntwrk Forensics & Threat Hunt 10151133 (3 credits)
IT Sec Awareness-10151102 (1cr)	Perimeter Security 10151106 (3 credits)	Penetration Testing 10151164 (3 credits)	Web Application Security 10151142 (3 credits)
Enterprise Client 10154184 (3 credits)	Windows Server 1 10154171 (3 credits)	Virtualization Technology 10157135 (3 credits)	Security Design 10151168 (3 credit)
Data Communications 10150104 (3 credits)	Python Scripting 10152109 (3 credits)	Intro to Cloud Computing 10157101 (3 credits)	
AI Fundamentals-10156105 (1cr)			Cybersecurity Internship 10151197 (3 credit)
Exploration of IT-10107111 (1cr)		Job Search Prep-10107175 (1cr)	
Written Communication[2] 10801195 (3 credits)	Oral/Interpersonal Comm[2] 10801196 (3 credits)	Math of Finance[2] 10804144 (3 credits)	Contemporary Amer Society[2] 10809197 (3 credits)
Psychology of Human Relations[2] 10809199 (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   60 credits
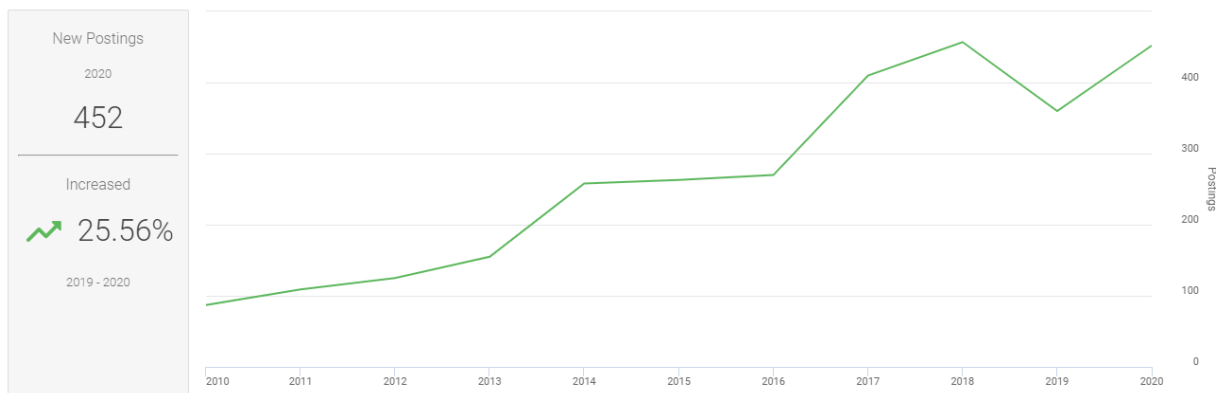
Semester 1 14 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Python for Developers[f] 10152211 (3 credits)	Data Visualization[s] 10156133 (3 credits)	Predictive Analytics[f] 10156144 (3 credits)	Applied Analytics in the Cloud[s] 10156145 (3 credits)
Excel Beginning 10103133 (1 cr)	Data Engineering[s] 10156135 (3 credits)		
Excel Intrmed 10103139 (1 cr)			
Introduction to Databases 10156124 (3 credits)	SQL Database Programming 10156125 (3 credits)	Cloud for Developers 10152110 (3 credits)	
Website Development 10152120 (3 credits)		UIUX and Web Accessibility 10152130 (3 credits)	Agile Practices 10152131 (3 credits)
Exploration of IT-10107111 (1cr)			Data Analytics Internship[s] 10156196 (3 credits)
IT Sec Awareness-10151102 (1cr)		Job Search Prep-10107175 (1cr)	
AI Fundamentals-10156105 (1cr)	Math of Finance[2] 10804144 (3 credits)	Oral/Interpersonal Comm[2] 10801196 (3 credits)	Elective (3 credits)
	Written Communications[2] 10801195 (3 credits)	Contemporary Amer Society[2] 10809197 (3 credits)	Psychology of Human Relations[2] 10809199 (3 credits)

[f]Fall Only   [s]Spring Only
[2]See your advisor for alternate general education courses that transfer

Color Codes for Course Types

Data	Analytics	Development/Other
Career Preparation	General Education	

Recommended Electives (3 credits total)

10152121	Advanced CSS	3
10152168	Advanced JavaScript	3
10152200	Foundations of Software Quality	3
10102104	Business Statistics	3

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

Semester 1 15 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Intro to Prog with JavaScript 10152119 (3 credits)	Cloud for Developers 10152110 (3 credits)	JS Frameworks[f] 10152158 (3 credits)	Adv Front End Development[s] 10152182 (3 credits)
Introduction to Databases 10156124 (3 credits)	UIUX and Web Accessibility 10152130 (3 credits)	Agile Practices 10152131 (3 credits)	Serverless Cloud with React[s] 10152108 (3 credits)
Website Development 10152120 (3 credits)	Advanced CSS 10152121 (3 credits)	Elective (3 Credits)	Elective (3 Credits)
IT Sec Awareness-10151102 (1cr)	Advanced JavaScript 10152168 (3 credits)	Job Search Prep-10107175 (1cr)	Front End Dev Internship 10152114 (3 credits)
Exploration of IT-10107111 (1cr)			
AI Fundamentals-10156105 (1cr)	Oral/Interpersonal Comm[2] 10801196 (3 credits)		
Written Communication[2] 10801195 (3 credits)	Oral/Interpersonal Comm[2] 10801196 (3 credits)	Contemporary Amer Society[2] 10809197 (3 credits)	Psychology of Human Relations[2] 10809199 (3 credits)

[f]Fall Only   [s]Spring Only
[2]See your advisor for alternate general education courses that transfer

Color Codes for Course Types

Front End Dev	Website Dev	Other

Career Preparation	General Education

Recommended Electives (6 credits total)

10152130	C# Web Dev Using ASP .NET[s]	3
10152166	PHP Web Dev with MySQL	3
10156125	SQL Database Programming	3
10152200	Foundations of Software Quality	3

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		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
- Network Engineering Technologies
- TDS

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.

Recommended Two-Year Course Progression for IT - Network Specialist

Semester 1 15 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Intro to Cisco Networking 10150121 (3 credits)	Cisco Networking 2[s] 10150122 (3 credits)	Cisco Networking 3[f] 10150123 (3 credits)	Advanced Network Topics[s] 10150151 (3 credits)
Enterprise Client 10154184 (3 credits)	Wireless Topics[s] 10150190 (3 credits)	VoIP Conv Fundamentals[f] 10150150 (3 credits)	
AI Fundamentals-10156105 (1cr) IT Sec Awareness-10151102 (1cr)	Python Scripting 10152109 (3 credits)	Software Defined Networking[f] 10150163 (3 credits)	Advanced SDN[s] 10150166 (3 credits)
Linux Server 1 10154190 (3 credits)	Windows Server 1 10154171 (3 credits)	Job Search Prep-10107175 (1cr)	Elective (3 Credits)
Exploration of IT-10107111 (1cr)		Math of Finance[2] 10804144 (3 credits)	Networking Internship 10150195 (3 credit)
Written Communication[2] 10801195 (3 credits)	Oral/Interpersonal Comm[2] 10801196 (3 credits)	Psychology of Human Relations[2] 10809199 (3 credits)	Contemporary Amer Society[2] 10809197 (3 credits)

Color Codes for Course Types

Networking	Automation	Infrastructure
Career Preparation	General Education	

[f]Fall Only   [s]Spring Only
[2]See your advisor for alternate general education courses that transfer

Recommended Electives (3 credits total)

10151114	Linux Server 2	3
10157135	Virtualization Technology	3
10157101	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

Learn to manage complex IT infrastructures, ensuring uninterrupted operation and security. Become a skilled professional who efficiently monitors, maintains, and optimizes resources, resulting in enhanced performance and robust data protection.

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
- Exact Sciences
- Forward Health Group
- JBC Business Technologies
- Madison Metropolitan School District
- Nelnet Diversified Solutions
- New Vision Networks
- Reedsburg Area Medical Center
- State of Wisconsin
- Sun Prairie Area School District
- TDS
- Wisconsin Supreme Court – CCAP
- UW Health – IT Services
- Spectrum Brands
- Morgridge Institute for Research
- iNOC
- PDS
- University of WI DoIT
- CDW

Recommended Two-Year Course Progression for IT – Systems Administration Specialist   63 credits

Semester 1 17 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Enterprise Client 10154184 (3 credits)	Windows Server 1 10154171 (3 credits)	Infrastructure Automation[f] 10154118 (3 credits)	Windows Server 2[s] 10154172 (3 credits)
A+ Hardware Essentials 10154104 (3 credits)	IT Service Concepts 10154122 (3 credits)	Supporting Emerging Tech[f] 10154147 (3 credits)	Python Scripting 10152109 (3 credits)
Data Communications 10150104 (3 credits)	Linux Server 1 10154190 (3 credits)	Virtualization Technology 10157135 (3 credits)	
IT Sec Awareness-10151102 (1cr) AI Fundamentals-10156105 (1cr)	Intro to Cloud Computing 10157101 (3 credits)	Job Search Prep-10107175 (1cr)	Systems Admin Internship 10154198 (3 credits)
Exploration of IT-10107111 (1cr)		Math of Finance[2] 10804144 (3 credits)	Elective (3 Credits)
Excel Beginning 10103133 (1 cr) Excel Intrmed 10103139 (1 cr)	Oral/Interpersonal Comm[2] 10801196 (3 credits)	Psychology of Human Relations[2] 10809199 (3 credits)	Contemporary Amer Society[2] 10809197 (3 credits)
Written Communication[2] 10801195 (3 credits)	[f]Fall Only [s]Spring Only [2]See your advisor for alternate general education courses that transfer		

Color Codes for Course Types

System Admin	Desktop Support	Infrastructure
Career Preparation	General Education	

Recommended Electives (3 credits total)

10151114	Linux Server 2	3
10157130	Azure Administration[f]	3
10157141	AWS Administration[s]	3

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   **64 credits**

Semester 1 18 credits	Semester 2 15 credits	Semester 3 16 credits	Semester 4 15 credits
Intro to Prog with JavaScript 10152119 (3 credits)	Java Programming 10152111 (3 credits)	Adv Java Programming 10152112 (3 credits)	Enterprise Java Programming 10152113 (3 credits)
Website Development 10152120 (3 credits)	UIUX and Web Accessibility 10152130 (3 credits)	Cloud for Developers 10152110 (3 credits)	Advanced JavaScript 10152168 (3 credits)
Introduction to Database 10156124 (3 credits)	SQL Database Programming 10156125 (3 credits)	Agile Practices 10152131 (3 credits)	
AI Fundamentals-10156105 (1cr)	PHP Web with MySQL 10152166 (3 credits)	Elective (3 Credits)	Elective (3 Credits)
Exploration of IT-10107111 (1cr)			Web Software Internship 10152132 (3 credits)
IT Sec Awareness-10151102 (1cr)		Job Search Prep-10107175 (1cr)	
Written Communication[2] 10801195 (3 credits)	Oral/Interpersonal Comm[2] 10801196 (3 credits)	Math of Finance[2] 10804144 (3 credits)	Contemporary Amer Society[2] 10809197 (3 credits)
Psychology of Human Relations[2] 10809199 (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)

10152103	C# Web Dev using ASP .NET[s]◉	3
10152108	Serverless Cloud with React[s]	3
10152121	Advanced CSS	3
10152158	JS Frameworks[f]	3
10152167	Adv PHP & MySQL Web Dev[f]◉	3
10152200	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)

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

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

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.

Career Pathway Certificate

IT – Service Center Technician

The IT-Service Center Technician Certificate from Madison College provides instruction for information systems professionals and programming students in the areas of computer software and communications. Topics covered include installation, maintenance and troubleshooting of operating systems and software. Students will also cover the configuration of devices to connect to an existing network as well as understand the fundamentals of exchanging data between end points.

Courses in this certificate, are part of the IT-Desktop Support Technician. You can continue with this pathway for job advancement.

IT – Desktop Support Technician
6 credits

Enterprise Client
10154184 (3 credits)

A + Hardware
10154104 (3 credits)

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   29 credits

Semester 1
15 credits

Semester 2
14 credits

Semester 1	Semester 2
Enterprise Client 10154184 (3 credits)	Windows Server 1 10154171 (3 credits)
Data Communications 10150104 (3 credits)	Linux Server 1 10154190 (3 credits)
A+ Hardware Essentials 10154104 (3 credits)	IT Service Concepts 10154122 (3 credits)
IT Sec Awareness-10151102 (1cr)	Excel Beginning 10103133 (1 cr)
Exploration of IT-10107111 (1cr)	Excel Intrmed 10103139 (1 cr)
AI Fundamentals-10156105 (1cr)	
Written Communication[2] 10801195 (3 credits)	Oral/Interpersonal Comm[2] 10801196 (3 credits)

Color Codes for Course Types

System Admin	Desktop Support
Infrastructure	Career Preparation
General Education	

[f]Fall Only   [s]Spring Only
[2]See 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

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.

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