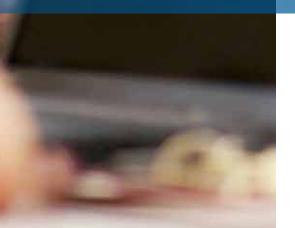# Course Descriptions

Following are descriptions of courses from which students may choose, provided prerequisites are met. To learn which courses apply to the chosen curriculum, see *Colleges & Programs of Study*, which provides details on required courses and alternate choices.

Course descriptions are presented alphabetically, by course designator. Numbers at the end of each description refer to contact hours per week spent in the classroom (based on the semester-length delivery format) and credit hours awarded for the course, respectively. Weekly contact hours are greater for courses offered through session-based delivery.

DeVry's diverse course offerings are specifically **designed and updated with students' career success in mind**.

MGMT340 Business Systems Analysis
This course focuses on analysis of business systems using current techniques to analyze business activities and solve problems. Interviewing skills, group dynamics, and development of process flows, data flows and data models are emphasized. Students learn to identify, define and document business processes and problems, and to develop solutions. *Prerequisite: BIS155 / 4-4*

MGMT404 Project Management
This course enhances students' ability to function in a project leadership role. While exploring the project life cycle, they gain experience in budget and timeline management. Project management software is used to design project schedules using methods such as bar charts, program evaluation review technique (PERT) and critical path method (CPM) to produce project plans to apply to the solution of case studies. *Prerequisites: MATH221 or MATH233, and upper-term status / 4-4*

MGMT408 Management of Technology Resources
This course focuses on developing and applying management and business skills in typical technical environments, as well as on technical support operations. Management approaches in resource planning, resource utilization, staffing, training, customer service, cost/benefit analysis and ongoing support are presented. Students apply business skills in developing and evaluating requests for proposal (RFPs) and related acquisition methods, and consider issues related to in-house and outsource solutions. *Prerequisite: ACCT301 / 3-3*

MGMT410 Human Resource Management
Students in this course explore contemporary concepts and techniques essential to managing corporate human resources. Topics include resource planning, staffing and rewards, as well as developing and maintaining positions and people. *Prerequisite: BUSN115 / 4-4*

MARKETING

MKTG310 Consumer Behavior
Students in this course analyze consumer purchasing behavior as it relates to development of marketing mix programs. Important considerations include economic, psychological, cultural, cognitive and social factors. *Prerequisite: BUSN319 / 4-4*

MKTG320 Market Research
Students in this course analyze various market research techniques, including methodology used to gather information for decision-making. Emphasis is placed on methods and techniques for collecting, analyzing, interpreting and disseminating primary and secondary data for final end-use. *Prerequisite: BUSN319 / 4-4*

MKTG410 Advertising and Public Relations
This course introduces the field of advertising and public relations. Topics include media relations; media buying; determining appropriate media; promotions; public relations and publicity development tools; methods for improving customer satisfaction; relationship-building strategies; and ethics in advertising and public relations. *Prerequisite: BUSN319 / 4-4*

MKTG420 Salesmanship
This course addresses the complex and demanding responsibilities of sales personnel, including forecasting; territory management; understanding customer expectations and buyer behavior; gathering feedback; communicating; budgeting; and relating sales goals to marketing goals. *Prerequisite: BUSN319 / 4-4*

MKTG430 International Marketing
This course provides a conceptual framework for marketing internationally, whether exporting or establishing a multi-national enterprise (MNE). Students explore development of international marketing programs, as well as various macroenvironmental factors that affect decision-making in an international setting. *Prerequisite: BUSN319 / 4-4*

MKTG440 Sustainability Marketing
This course analyzes marketing functions from a sustainable practices perspective. Opportunities to develop product pricing, channels, promotion and markets are considered as they relate to maximizing producer and consumer value, with attention to societal and environmental considerations. *Prerequisites: BUSN319 and SOCS325 / 4-4*

NETWORKS

NETW202 Introduction to Networking with Lab
This course introduces the underlying technology of local area networks (LANs), wide area networks (WANs) and the Internet. Topics include networking media, the Open System Interconnection (OSI) model, transmission control protocol/Internet protocol (TCP/IP), an overview of routing and switching, and small network configuration and troubleshooting. Students prepare and test cabling and become familiar with protocol analyzers. *Prerequisite: COMP129 / 4-3*

**NETW203 Cisco Networking Academy -
Introduction to Networking with Lab**
This course introduces the underlying technology of local area networks (LANs), wide area networks (WANs) and the Internet. Topics include networking media, the Open System Interconnection (OSI) model, transmission control protocol/Internet protocol (TCP/IP), an overview of routing and switching, and small network configuration and troubleshooting. Students prepare and test cabling and become familiar with protocol analyzers. This course is based on Cisco Networking Academy content. *Prerequisite: COMP129 / 4-3*

NETW204 Introduction to Routing with Lab
This course introduces router configuration, maintenance and troubleshooting; routing protocols; and use of access control lists (ACLs) as a traffic management tool. Students gain command-line-interface (CLI) knowledge and configure local and wide area networks with routers. In addition, students apply the transmission control protocol/Internet protocol (TCP/IP) suite of commands and ACLs to real networks under troubleshooting and traffic management scenarios. *Prerequisite: NETW202 or NETW203 / 4-3*

**NETW205 Cisco Networking Academy -
Introduction to Routing with Lab**
This course introduces router configuration, maintenance and troubleshooting; routing protocols; and use of access control lists (ACLs) as a traffic management tool. Students gain command-line-interface (CLI) knowledge and configure local and wide area networks with routers. In addition, students apply the transmission control protocol/Internet protocol (TCP/IP) suite of commands and ACLs to real networks under troubleshooting and traffic management scenarios. This course is based on Cisco Networking Academy content. Eligibility to enroll in the course is based on placement results and successful completion of NETW202, or on successful completion of NETW203. *Prerequisite: NETW203 / 4-3*

NETW206 Introduction to Switching with Lab
This course presents advanced Internet protocol (IP) addressing techniques, intermediate routing protocols, switch configuration and maintenance, virtual local area networks (VLANs) and related protocols, and network design strategies. Students expand their skills in router and switch configuration and maintenance by building and troubleshooting various networks. *Prerequisite: NETW204 or NETW205 / 4-3*

**NETW207 Cisco Networking Academy -
Introduction to Switching with Lab**
This course presents advanced Internet protocol (IP) addressing techniques, intermediate routing protocols, switch configuration and maintenance, virtual local area networks (VLANs) and related protocols, and network design strategies. Students expand their skills in router and switch configuration and maintenance by building and troubleshooting various networks. This course is based on Cisco Networking Academy content. *Prerequisite: NETW205 / 4-3*

NETW208 Introduction to WAN Technologies with Lab
This course addresses wide area network (WAN) design using various technologies; WAN protocols configuration and troubleshooting; and network management. In the lab, students expand their skills in router and switch configuration and maintenance by building and troubleshooting various networks, as well as design, configure and troubleshoot various WAN topologies. Use of the following protocols and technologies is expanded or introduced: network address translation and port address translation, dynamic host configuration protocol, point-to-point protocol authentication, integrated services digital network, dial-on-demand routing and frame relay. *Prerequisite: NETW206 or NETW207 / 4-3*

**NETW209 Cisco Networking Academy -
Introduction to WAN Technologies with Lab**
This course addresses wide area network (WAN) design using various technologies; WAN protocols configuration and troubleshooting; and network management. In the lab, students expand their skills in router and switch configuration and maintenance by building and troubleshooting various networks, as well as design, configure and troubleshoot various WAN topologies. Use of the following protocols and technologies is expanded or introduced: network address translation and port address translation, dynamic host configuration protocol, point-to-point protocol authentication, integrated services digital network, dial-on-demand routing and frame relay. This course is based on Cisco Networking Academy content. *Prerequisite: NETW207 / 4-3*

NETW230 Network Operating Systems - Windows, with Lab
This course explores basic operation and management of local and wide area networks using the Microsoft network operating system (NOS). Topics include installation of server and workstation software, physical network configuration, network security, policy, domain controllers, performance monitoring and troubleshooting techniques. NOS features, ease of management, utilities, upgrades, and interoperability with other NOSs and client types are analyzed. *Prerequisites: COMP230, and NETW204 or NETW205 / 5-4*

NETW240 Network Operating Systems - UNIX, with Lab
This course explores basic operation and management of local and wide area networks using UNIX or similar network operating systems (NOSs). Topics include server and workstation software installation, physical network configuration, network security, policy, performance monitoring and troubleshooting

techniques. NOS features, ease of management, utilities, upgrades, and interoperability with other NOSs and client types are analyzed. *Prerequisites: COMP230, and NETW204 or NETW205 / 5-4*

NETW250 Voice/VoIP Administration with Lab
This course examines technologies and systems that serve voice traffic, including enterprise switches (e.g., private branch exchanges and Centrex), networked telephony solutions, Voice over Internet Protocol (VoIP), call centers, voice processing and wireless systems. Administration of these systems is emphasized, and relevant troubleshooting and security issues are discussed. *Prerequisite: NETW204 or NETW205 / 4-3*

NETW310 Wired, Optical and Wireless Communications with Lab
This course examines wired, optical and wireless signals and their transmission in the network. Topics include codes and numbering systems, data transmission methods, basic point-to-point networks, error detection and correction, and Internet access technologies. *Prerequisite: NETW204 or NETW205 / 4-3*

NETW320 Converged Networks with Lab
This course examines foundations for current and emerging networks that deliver voice, data and video/imaging through various technologies. Topics include core switching, broadband and edge access, Internet protocol telephony, adding packet capabilities to circuit-switched networks, 3G solutions, presence-enabled communications, security and troubleshooting. Telecommunications regulation and standards are discussed. *Prerequisite: NETW208 or NETW209 / 4-3*

NETW360 Wireless Technologies and Services with Lab
This course examines wireless technology and how wireless networks operate. Wireless network components, design, security and troubleshooting are explored, as is wireless network regulation. Trends and related issues in wireless technology and services are discussed. *Prerequisite: NETW310 / 4-3*

NETW410 Enterprise Network Design with Lab
Students in this course apply knowledge of wired and wireless network technologies and services – as well as network security and cost consideration – to develop network solutions that meet business requirements. Critical thinking, problem-solving, troubleshooting and teamwork are emphasized. *Prerequisite: NETW230 or NETW240 / 5-4*

NETW420 Enterprise Network Management with Lab
Students in this course develop skills related to ongoing network management. Topics include issues relating to wireless; traffic analysis; troubleshooting/problem-solving; and improving network performance, reliability and security. Coursework integrates business management considerations with network management to support business goals. *Prerequisites: MATH221 and NETW410 / 5-4*

NETW430 Information Storage and Management with Lab
This course covers core logical and physical components that make up a storage system infrastructure, as well as application of those components for maintaining business continuity, storage security, and storage infrastructure monitoring and management. *Prerequisite: NETW320 / 4-3*

NETW471 Advanced Topics in Networking
This course focuses on emerging and advanced topics in the networking field. Students explore advances in technology and their implications in designing, implementing, securing and managing networks. *Prerequisite: NETW420 / 3-3*

NETW490 Senior Project with Lab
Through an applications-oriented team project, students demonstrate their problem-solving and project management skills. To complete the project, students integrate aspects of network analysis, design, planning, implementation, troubleshooting and evaluation. This course must be taken at DeVry. *Prerequisites: MGMT404 and NETW420 / 5-4*

Note: The combination of NETW494 and NETW497 may be offered as an alternate to NETW490.

NETW494 Senior Project I with Lab
In this course, the first in a two-course sequence, students begin an applications-oriented team project to demonstrate their problem-solving and project-management skills. To complete the project, students integrate aspects of network analysis, design, planning, implementation and evaluation. This course must be taken at DeVry. *Prerequisites: MGMT404 and NETW420 / 2-2*

NETW497 Senior Project II with Lab
In this course, a continuation of NETW494, students further demonstrate their problem-solving and project-management skills. To complete the project, students integrate aspects of network analysis, design, planning, implementation and evaluation. This course must be taken at DeVry. *Prerequisite: NETW494 / 3-2*