SMU | LYLE
SCHOOL OF ENGINEERING

To speed product development, a manufacturer must implement a video conferencing system capable of conveying high-definition, 3D images in real time from its engineering centers to its production partners.

To reach audiences, a media company must deploy programming across multiple platforms ranging from terrestrial transmitters to video game units to tablets and smartphones.

To protect its intel, a government agency must secure networks against increasingly sophisticated "unfriendlies" while enhancing access by a wide range of user devices.

Demand for quantum leaps in bandwidth in the face of technological limits in capacity. The need to enhance service by migrating apps and services to faster, smarter platforms, while meeting critical but conflicting requirements for accessibility and security. These are telecom challenges requiring breakthroughs on many fronts, driving demand for those with knowledge to innovate and skills to lead. This is the opportunity behind the master's in telecommunications and network engineering at Lyle.

FIND US **HERE**

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214-768-2002

NETWORK DESIGN

MASTER OF SCIENCE | TELECOMMUNICATIONS AND NETWORK ENGINEERING

OTHER **SPECIALIZATIONS**

❶ Network Design ❷ Software Engineering ❸ Engineering Management ❹ Wireless Networks

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MASTER OF SCIENCE | TELECOMMUNICATIONS AND NETWORK ENGINEERING

ACADEMIC **PROGRAM**

Thirty (30) credit hours (CH) of graduate courses from the following.

Satisfactory completion of all core curriculum (9 CH).

Introduction to Telecommunications
Network Protocols
Switching and Routing

Satisfactory completion of seven elective courses (21CH).

Advanced Network Design
Advanced Topics in Wireless Communication
Data Compression for Multimedia Applications
Fiber Optic Telecommunications
Intelligent Networks
Internet Telephony
Multiprotocol Label Switching (MPLS)
Network Analysis, Architecture, and Design

Optical and DWDM Networks
Switching and QoS Management in IP Networks
Telecommunications Network Management
Telecommunications Network Security
Telecommunication Regulation
Telecommunications Software Design
Wireless, Cellular, and Personal Telecommunications
Wireless Networks

ACCESS CONVERGENCE

Businesses, government agencies, and institutions demand telecommunications networks capable of providing anywhere/anytime access to information in any form, on any device, across any platform. Meeting this demand calls for professionals with an understanding of advanced communications technology, as well as business skills to lead development at the VP level and above. Designed for working professionals, Lyle's master's in telecommunications and network engineering enables students to advance their knowledge of traditional technologies, such as network protocols, routing, and switching, as well as cutting-edge developments, including wireless and optical networks, Voice over IP (VoIP), Quality of Service (QoS), and Multiprotocol Label Switching (MPLS). Students also learn management principles, industry regulations, and public policy, emerging well-positioned for leadership in this all important field.

COMPUTE PATHS

Developed in consultation with industry partners, this 30-hour program makes on campus course materials available worldwide. Unique in its use of state-of-the-art simulation software, it allows students to design, optimize, and analyze real-world networks. The curriculum is designed with the flexibility for students to specialize in wireless networks, management, or software. Course content is presented by expert faculty with decades of experience in high-level engineering and management positions. Students also benefit from the expertise of guest lecturers drawn from industry partners, leading manufacturers, and service providers in the 'Telecom Corridor' of North Texas.

SMU | LYLE SCHOOL OF ENGINEERING

Electrical Engineering Department

ENROLL **NOW**