

# Master of Science Packaging of Electronics and Optical Devices



Micromechatronics, nanotechnology ... the brave new world of electronic packaging is already upon us. Not only must engineers find room for advanced capabilities, greater complexity, higher reliability and lower-cost manufacturability in conventional devices, they must prepare for the challenges of packaging on a sub-microscopic scale.

To compete, organizations need engineers with an enlarged understanding of mechanics, electrical behavior, semiconductors, thermal management, materials science and manufacturing. Those with such wide-ranging knowledge will find themselves in high demand as advanced electronic and optical devices reach even further into our lives.

SMU's sequence of advanced courses in electronic packaging is one of only a few programs in the world designed to provide working engineers with the depth and breadth of skills in the diverse disciplines they need to succeed in this ever more demanding field.

## Designed for Working Professionals

SMU offers the only electronic packaging program that can be delivered 100% via distance learning. With all the detail and content of the on-campus classes, you can view streamed versions of live lectures to complete the Masters degree or the unrivaled option for non-degree studies.

**At SMU, we're engineering leaders...shaping tomorrow. Enrollment is limited. Apply today.**

For more information, please contact **Donald. C. Price**, PhD., P.E., Program Director at [dprice@engr.smu.edu](mailto:dprice@engr.smu.edu) or call **214-768-1591**. Or visit [engr.smu.edu/me/degrees/ms\\_packaging.html](http://engr.smu.edu/me/degrees/ms_packaging.html).

## 30 Hours to a Richer Future

Located in Dallas, a vibrant international city and center for high technology companies, SMU has developed a reputation for providing a 30 hour Master of Science program that goes beyond the basics — producing truly imaginative and innovative leaders needed by existing and emerging companies in the global electronics industry.

Students take four core curriculum courses and six electives in electronic packaging for a total of 30 semester hours. **There is no on-campus or thesis requirement.** If you're interested in taking the courses for content and articulation, but not in obtaining a complete Masters degree, you can enroll as a non-degree student. On successful completion of requisite coursework, you will receive a **Professional Certificate in Electronic Packaging Fundamentals.**

## ADMISSION REQUIREMENTS

Bachelor of Science in one of the engineering disciplines, or in a closely related scientific field with a GPA of at least 3.00 on a 4.00 scale.

## Degree Plan

### Core Curriculum

Fundamentals of Electronic Packaging \*  
Introduction to Thermal Management of Electronics\*  
Electronic Packaging Materials \*  
Vibration Analysis of Electronic Systems\*

### Elective Courses [Select Six of Eight]

Introduction to Microelectromechanical Systems and Devices  
Electronic Product Design and Reliability  
Analysis and Design of Optoelectronic Packages  
Convective Cooling of Electronics  
Conductive Cooling of Electronics  
Thermal, Fluid, and Mechanical Measurements in Electronic Systems  
Electronic Manufacturing Technology  
Application of Computational Techniques to the Mechanical and Thermal Design of Electronic Systems

*\*A Professional Certificate may be earned upon successful completion of the four courses denoted.*