

## Classes designed and taught by industry experts

- Distinguished professionals in design, manufacturing and operations quality
- Insights and context derived from extensive experience bringing medical products to market
- Valuable networks of medical device professionals and leaders
- Our faculty members are passionate about student success. They are focused on meeting customer requirements and equipping students with quality principles, tools and systems to enhance medical device industry process and product solutions throughout their life cycle.



## Our industry advisory board members help us plan for the future.

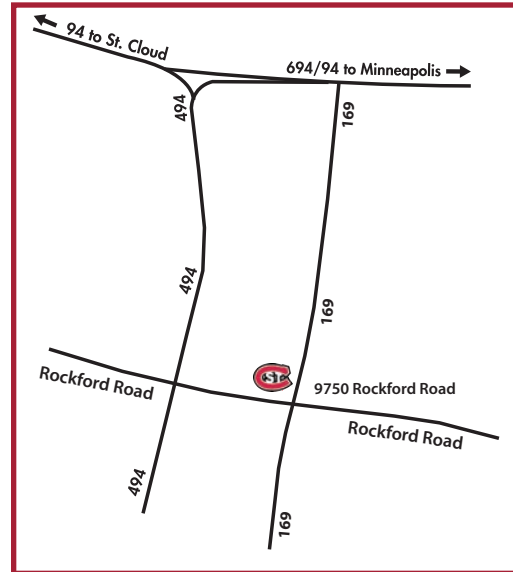
- Senior executives in clinical research, regulatory affairs and quality
- Visionary, global leaders that lend their talents to guide and shape the future of the medtech programs
- Vast networks and diverse experiences at companies including 3M, Abbott, Boston Scientific, Duval & Associates, Medtronic, Neovasc, RCRI, and Smiths Medical

More information about each of our instructors and advisory board members can be found online at [www.msmtq.com](http://www.msmtq.com).



Master's degree graduates with Directors Susan Petersen-Stejskal and Cathy Krier

## Attend classes online or in person at St. Cloud State at Plymouth.



For more information  
320.308.2167  
[www.msmtq.com](http://www.msmtq.com)  
[mtq@stcloudstate.edu](mailto:mtq@stcloudstate.edu)

### College of Science and Engineering

145 Robert H. Wick Science Building  
St. Cloud State University  
720 Fourth Avenue South  
St. Cloud, Minnesota 56301-4498  
[www.stcloudstate.edu/cose](http://www.stcloudstate.edu/cose)  
[cose@stcloudstate.edu](mailto:cose@stcloudstate.edu)

### St. Cloud State at Plymouth

9750 Rockford Road, Suite 100  
Plymouth, MN 55442  
(Off Rockford Road and HWY 169)  
[www.stcloudstate.edu/tcgraduatecenter](http://www.stcloudstate.edu/tcgraduatecenter)



ST. CLOUD STATE  
UNIVERSITY



MINNESOTA STATE

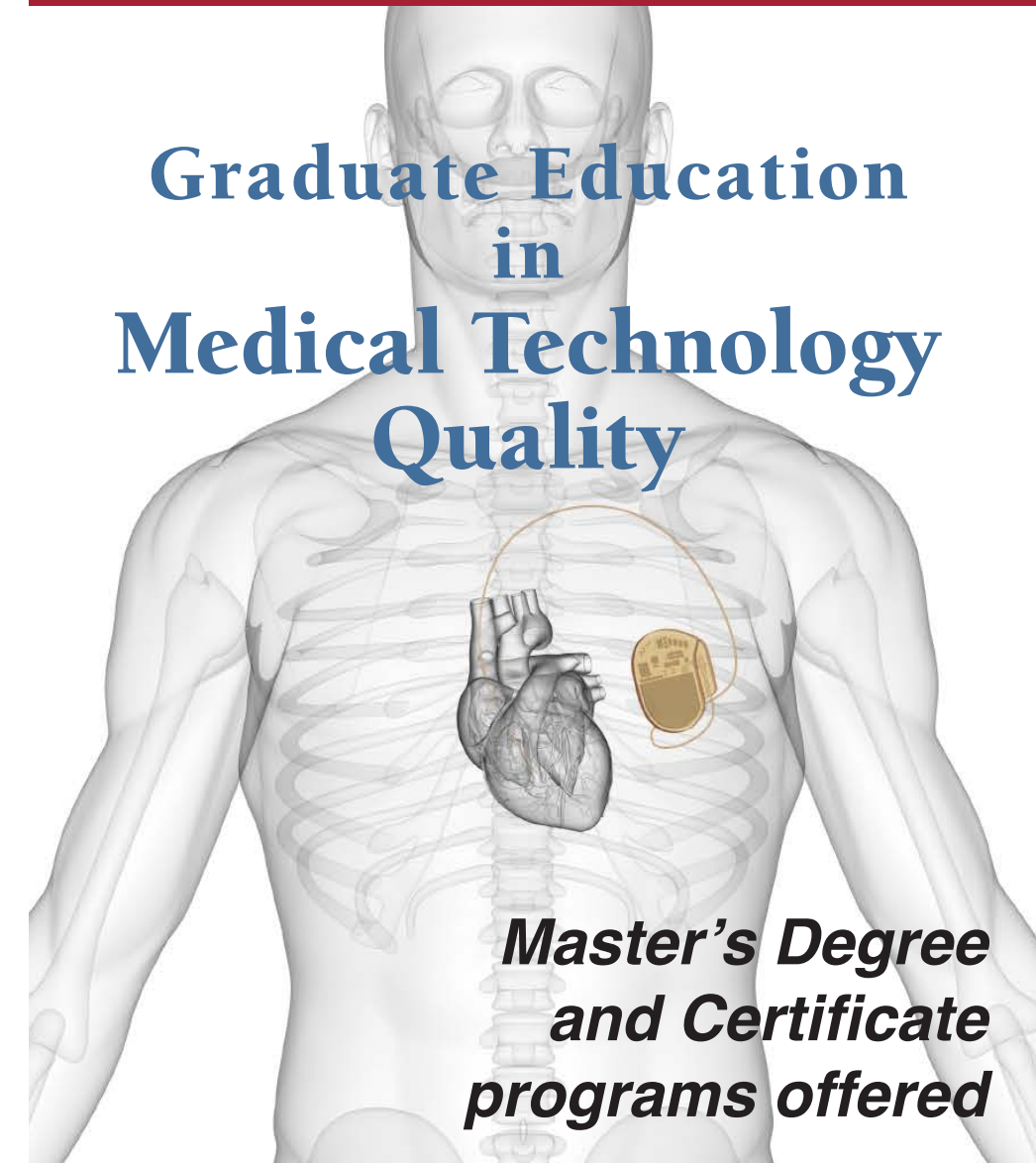
St. Cloud State University,  
A member of Minnesota State



St. Cloud State University is committed to legal affirmative action, equal opportunity, access and diversity of its campus community. (<http://scsu.mn/scsuoea>)

## Classes held in Plymouth, Minnesota

# Graduate Education in Medical Technology Quality



## Master's Degree and Certificate programs offered



ST. CLOUD STATE  
UNIVERSITY™

# Medical Technology Quality

*Expand your expertise and advance your career*

This program addresses one of the key professions for the medtech industry, helping current quality professionals broaden and deepen their expertise in a wide range of quality fields. It can also help to strengthen job performance and open more career opportunities. For professionals new to this field, it will help establish a solid foundation to enter and have successful careers in this field.

The program was developed by an 11 member quality education committee made up of senior quality leaders from medtech companies, including the four largest in Minnesota, and the University's Master of Engineering Management program director. The companies represented on the committee included over 2/3 of the medtech industry in Minnesota. The committee worked closely together to develop this powerful curriculum.

The program focuses on the fundamentals of quality for the medtech industry, the medtech regulatory impact, quality systems development and implementation, design and manufacturing process development and validation, and the overall management of quality for the medtech industry. It also provides experience and development competencies in:

- Role of quality professionals in all phases of product development from concept and design to post market surveillance
- Quality tools and applications in the design and manufacturing of medical technology products.
- FDA and ISO design control requirements for medtech product development and manufacturing.

If you are considering a career in the quality profession, or are looking to expand your expertise in this field, you should strongly consider taking this program. Many courses are available on an independent basis. For those uncertain about enrolling for the full degree program, this can be a great way to get started since completed courses will apply to the full degree if you decide to enroll in the degree program.



*"The MTQ program at SCSU has already helped me get two promotions and I won't graduate until next year. This has definitely advanced my career to the next level."*

**MTQ Student**

***www.msmtq.com***

## *It's about having options*

### ***For students in the Twin Cities and beyond...***

- In-person class held at the St. Cloud State at Plymouth academic center located in the Minneapolis suburb of Plymouth, Minnesota.
- Class participation is available in person and remote to engage students in synchronous class participation when traveling for work and for students located in other cities.
- Courses are offered weekday evenings and Saturday mornings.

### ***Three credential pathways...***

- Graduate Certificate
  - Can be obtained in one year.
  - All coursework may be applied toward the MS degree.
- Master's Degree - full time program with internship
  - Can be obtained in two years.
  - The first year is focused on full-time study.
  - The second year students devote approximately 20 hours per week to an industry internship.
- Master's Degree - part time program with culminating project
  - Can be obtained in two years.
  - Designed for working professionals.
  - After completing 21 credits of coursework, students begin to work with their employer or a host company to complete a culminating project.

## ***Course Information***

**MTQ 620:** Medical Device Quality and Regulatory Fundamentals (3 credits)

**MTQ 622:** Quality Engineering (3 credits)

**MTQ 624:** Risk Management (3 credits)

**MTQ 626:** Medical Technology Quality Systems (3 credits)

**MTQ 628:** Design Control and Product Development (4 credits)

**MTQ 630:** Design Verification, Validation, and Clinical Studies (3 credits)

**MTQ 632:** Manufacturing Process Development and Validation (3 credits)

**MTQ 634:** Corrective Action and Preventive Action (CAPA) (3 credits)

**MTQ 636:** Process Control and Monitoring (3 credits)

**MTQ 638:** Supplier Development and Management (3 credits)

**MTQ 698:** Culminating Experience (2 credit)



## ***Things to consider***

### ***Admission Qualifications***

- Bachelor's degree in science, math, engineering or healthcare preferred
- Grade transcripts
- Three recommendations using designated form
- Completed application form
- Graduate school review and approval

### ***Independent Enrollment***

Courses may be taken on an independent basis without enrollment in the degree program.

***To apply, visit the MSMTQ website application page:***

***[www.stcloudstate.edu/gradadmissions/application/default.aspx](http://www.stcloudstate.edu/gradadmissions/application/default.aspx)***