

# BIEN 505. MEDICAL TECHNOLOGY INNOVATION AND DEVELOPMENT

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Credits: 3

Offered by: Bioengineering (Faculty of Engineering)

Terms offered: Winter 2026

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## Description

Systematic design methodologies and support concepts: clinical user need identification, brainstorming and conceptualization, system and robust design and development practices, verification and validation testing and failure modes analysis, regulatory affairs, for medical devices and technologies. Concepts and framework of ideation and conceptualization through to device output for sale as realized and defined by the medical device technology industry. Focus on corporate and technological phase structuring for systematic product design and medical business creation aspects. Real-world examples, artifacts from industry, recent articles, and presentations.

- Prerequisites: Permission of the instructor.
- Restrictions: Open to U3 or higher students.

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