Class of 2023 Master of Science in Medical Device Engineering (MSMDE)

Students in the MSMDE program are required to complete a minimum of **48.0 credits** over the course of two years of study. The coursework is comprised of required courses, elective courses, and a capstone project.

Core Requirements

1st Year Fall Core Courses	Credits		1st Year Spring Core Courses	Credits
SCI 5700 Medical Diagnostics	3.0		**ENG 5300** Medical Devices	3.0
ENG 5310 Clinical Experience for Engineers	3.0		**REG 5000** Intro to US Food and Drug Law	1.5
ENG 5320 Computer Aided Design	1.5		**ENG 6360** Digital Health User Experience	1.5
ENG 5330 Prototyping Methods	1.5		**ENG 6340** Device and Diagnostic Product Development	3.0
BUS 5000 Intro. to Bioscience Business	3.0		**ENG 6350** Medical Device Quality Control	3.0
MATH 5000 Application of Statistics (Based on placement exam)	(1.5)			
PDEV 5300 Business/Science Communication (Based on placement exam)	(1.5)			
PDEV 5100 Professional Development or **PDEV 5400** Premedicine Professional Development (if eligible)	0 (1.5)			
Subtotal	**12.0**		**Subtotal**	**12.0**

2nd Year Fall Core Courses	Credits	2nd Year Spring Core Courses	Credits
PDEV 5000 Team Masters Project	4.5	**PDEV 5000** Team Masters Project	6.0
PDEV 6010 Team Masters Project Management	1.5	**REG 6330** Medical Device QA/QC	1.5
BUS 6600 Business Operations	3.0	**PDEV 5220** Healthcare and Life Sciences Industry Ethics	1.5
REG 6120 Medical Device Regulatory Affairs	1.5	Electives	3.0
Electives	1.5		
Subtotal	**12.0**	**Subtotal**	**12.0**

Core Courses
All students must complete the named courses above to complete the MSMDE degree.

Elective Courses
All MSMDE students are required to complete a minimum of 4.5 additional credits of courses.

Not all electives are offered every year. Refer to the KGI Henry E. Riggs School of Applied Life Sciences course catalog for information.

Independent Study/Independent Research (IS/IR) Courses
Students may enroll in 1.5 or 3.0 credits of independent study or research per semester. To enroll in IS/IR, the student must complete the Independent Study/Research Contract and return it to the Registrar's Office before the last day to add courses. Independent study is the acquisition of skills, knowledge, or information that is known among professionals. For example, learning lab skills or preparing for a certification exam. Independent research is comprised of work aimed at generating novel techniques, knowledge, or synthesis of information.

CGU Courses
Students may substitute up to 4.0 credits at CGU to count as up to 3.0 credits at KGI. Please note that only 3.0 such CGU credits can be applied to meet graduation requirements.

Academic Petitions
Examples of requests include, but are not limited to, the following:
- Course overload: permission to take more than 19.5 credits
- Exceptions to registration deadlines (i.e., late add/drop)
- Variances in cross-registration and general education requirements
- Students requesting part-time status
- Exceptions to graduation requirements or other KGI academic policies

Please see the Academic Petitions page for more information. To fill out an Academic Petition, click here.