KECK GRADUATE INSTITUTE
Henry E. Riggs School of Applied Life Sciences

2026-27 Academic Catalog/Class of 2028 Graduation Requirements

Master of Business & Science (MBS)

To earn the MBS degree, students are required to complete the following coursework:

- Core curriculum (25.5 credits)
- TMP (12.0 credits)
- Other courses to total 48 credits (average 12.0 credits/semester)
- 400-hour paid, industry internship in the summer following their first year approved by KGI Career Services and an internship poster reviewed by KGI faculty.

MBS Students may also complete an optional 9 credit Concentration during their second year.

Year 1 Core Curriculum

Fall Courses	Credits
BUS 5000 Intro. to Bioscience Industries	3.0
ENG 5160 Introduction to Bioprocessing	1.5
SCI 5300 Pharmaceutical Discovery	1.5
SCI 5310 Pharmaceutical Development	1.5
SCI 5700 Medical Diagnostics	3.0
REG 5000 Intro. to US Food and Drug Law	1.5
PDEV 5100 Professional Development	0.0
Subtotal	**12.0**

Spring Courses	Credits
BUS 5110 Corporate Finance	3.0
BUS 5300 Competitive Strategy	3.0
BUS 5500 Business Research Design and Analytics in Life Sciences	3.0
ENG 5300 Medical Devices – Principles and Applications	3.0
Subtotal	**12.0**

Year 2 Course Requirements

- Fall TMP: PDEV 6000: Team Master's Project (6.0)
- Spring TMP: PDEV 6000: Team Master's Project (6.0)
- Spring: PDEV 5240 Life Science Industry Ethics (1.5)

Independent Study/Independent Research

Independent research (RES 6000, 6001) and independent study (RES 6010, 6011) are conducted under the supervision of one or more faculty members.

Students may enroll in 1.5 or 3.0 credits per semester. No more than 3.0 credits of IS/IR will count toward graduation for all MBS students.

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 acquiring skills, knowledge, or information that is known among professionals; independent research is work that generates novel techniques, knowledge, or synthesis of information.

Other Policies

Electives: During the second year MBS students may enroll in most Riggs School course that are not part of the MBS core curriculum for elective credit. Note however that some courses may have prerequisites or require instructor permission to enroll.

Courses in Other KGI Schools: Students may submit an academic petition to count GENE or PHARM courses taught within the School of Pharmacy and Health Sciences may for credit towards the MBS degree. PHAR 7563: Fundamentals of Medical Affairs (1.5 credits) and GENE 5120 Bioinformatics in Python (1.5) may be taken for elective credit without petition.

Concentrations: Students are encouraged (but not required) to designate a career-specific concentration. Each concentration requires completing a total of 9 credits of required and elective courses, as shown on the following pages. With permission of the Program Director, up to 3.0 elective credits for independent research or study can be counted as a concentration elective, if the topic is directly related to the concentration.

CGU/Drucker Courses: Students may substitute up to four credits at CGU (including Drucker) to count as up to three KGI credits; this is the maximum number of credits that can be applied to meet any graduation requirements. In most cases, prerequisites for Drucker courses cannot be waived or substituted. Students may submit an academic petition to count a CGU/Drucker course for the elective portion of a Concentration, so long as the course is in the area of the Concentration. All registration for Drucker courses must originate with the KGI registrar; do not directly contact the Drucker instructor or registrar.

Safety Training: The completion of KGI laboratory safety training is required for students who take specific laboratory classes.

Academic Petitions

The Program Director and Academic Dean must sign a petition for certain requests, such as the following:

- Course overload: permission to take more than 18 credits
- MBS students requesting part-time status (less than 12 credits/semester)
- Exceptions for course prerequisites (also requires instructor approval)
- Exceptions to registration deadlines (late Add or Drop)
- Exceptions to cross registration and general education requirements
- Substitution for a required or elective concentration course, including counting independent study or independent research towards as a concentration elective
- Exceptions to graduation requirements or other KGI academic policies

Request for course exceptions or substitutions should be submitted in advance. Please follow the instructions for Academic Petitions on the Registrar's "Forms and Documents" page.

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Concentrations

Required and elective classes

Operations and Supply Chain Management (6+3)

BUS 6600: Business Operations (3.0)
BUS 6610: Supply Chain Biotech Operations (3.0)

Electives (3 credits from the following)
ENG 6350: Medical Device Production (3.0)
REG 5310: Quality Systems and Regulation for Biologics (1.5)
REG 6320: Advanced Regulatory Topics for Biologics (1.5) SCI 5600: Principles of Cell Culture Processes (1.5)
ENG 5140 Bioseparations Engineering and Science (1.5)

Biotech Management (6+3)

BUS 6150: Foundations of Innovation Management (3.0) BUS 6500: Marketing Management (3.0)

Electives (3 credits from the following)
BUS 5200: Healthcare Economics (1.5)
BUS 6220: Drug Pricing and Reimbursement (1.5) BUS 6310: International Business (1.5)
BUS 6400: Organizational Behavior (3.0)
BUS 6410: Leadership in Organizations (1.5) – temp name
MATH 6510: Market Analytics (1.5)

Regulatory Affairs (6+3)

REG 6110: Drug and Biologic Regulations (1.5)
REG 6120: Medical Device Regulations (1.5)
REG 6140: Global Regulatory Pathways for Biologics (1.5) REG 6510: Design of Clinical Trials (1.5)

Electives (3 credits from the following)
ENG 6350: Medical Device Production (3.0)
MATH 5020: Clinical Biostatistics (3.0)
REG 5160: Quality Systems and Regulations for Biologics (1.5)
REG 6320 Advanced Regulatory Topics for Biologics (1.5) REG 6520: Clinical Trial Design and Literature Evaluation (3.0) SCI 6310: Biotechnology-Based Therapeutics(3.0)

Data Analytics (3+6)

MATH 5100: Data Analytics in Python (1.5) MATH 6510: Market Analytics (1.5)

Electives (6 credits from the following)
MATH 5300: Machine Learning in the Life Sciences (1.5) MATH 5220: Data Analytics in R (1.5)
MATH 6300: Artificial Intelligence in the Life Sciences (1.5)
RES 6001 Independent Research Project in data analytics or artificial intelligence (1.5)