3 Required Independent Study Credits - *All foundational credit courses are 3 credit hours*

RGME 560: *Independent Study-Research Project*

Allows students to explore a topic of interest under the close supervision of a RGME program director and mentor. The course may include directed readings, applied work, assisting a faculty member with a research project, carrying out an independent research project, or other activities deemed appropriate. Regardless of the activities, the work must culminate in a formal paper. The specific course requirements are described in the Independent Studies Proposal form to be completed by the student, project mentor and program director prior to enrollment in the course.

**Offered fall, spring, and summer semester*

RGME 565: *Independent Study-Industry Internship*

Provides students with the opportunity to gain practical experience within an industry environment. Course objectives are: -Acquire knowledge of the industry sector in which the internship is completed. -Translate knowledge and skills learned in the classroom into a work environment. -Explore additional career options available with the designated industry sector. -Identify areas for future knowledge and skill development.

**Offered fall, spring, and summer semester*

RGME 547: *Gene Therapy and Concepts in Regenerative Medicine*

Focuses on the principles of gene therapy for disease treatment or drug delivery. Technical aspects associated with the development of the therapeutic approach will be covered along with the concepts related to the legal, ethical, economic, religious, and philosophical consequences of implementing gene-editing technologies for common and rare (often childhood) diseases. The “agora” will define ethical considerations of risk/benefit, informed consent, priority therapy targets, optimal technologies and delivery, costs, FDA regulation, and desired outcomes across disciplines.

RGME 549: *Advanced Regenerative Medicine- Innovation and Applications*

A literature-based class. Students will learn how to critically review the regenerative medicine literature and will be given specific articles to present. The students will also learn how to compare articles in terms of diverse outcomes to understand the concepts of critical learning. The review of regenerative medicine literature culminates with presentations by students-- ensuring they learn how to interpret literature critically.

RGME 525 *(2 credit hours)*: *Current Topics in Regenerative Medicine*

Current Topics in Regenerative Medicine, will be an elective course in the newly approved Master's Program in Regenerative Medicine and Entrepreneurship. The objective of this course is for each student to develop a general understanding of concepts and current topics related to Regenerative Medicine, Stem Cell research, entrepreneurship and product development.

-To expose students to principles in Cell Biology and Tissue Engineering relevant to the field

-To review the current landscape and spectrum of topics which makes up the field of regenerative medicine

-To explore current and emerging technologies supporting regenerative medicine research

-To discuss federal regulatory and compliance issues related to clinical research and the development of therapeutics

-To explore cellular manufacturing approaches for regenerative medicine products

-Discuss ethical and societal issues related to regenerative medicine research and technologies

Review all course descriptions via the CWRU Bulletin