

The Scholarly Concentrations in Medical Innovation & Technology Track

The Medical Innovation & Technology track will offer students an opportunity to engage in a scholarly pursuit that (1) focuses on the fundamentals of healthcare innovation & entrepreneurship, (2) participates in the development of technological advancements, and (3) with current Stony Brook clinician innovators, applies these concepts into clinical practice. Through their involvement in this track, students will gain an appreciation for the evolving landscape in medical innovation & technology, and devise their own scholarly project, leading to the improvement of some aspect of innovation at the Renaissance School of Medicine (RSOM) at Stony Brook University.

The overall goal of this track is to expose students who have an interest in healthcare innovation, and who wish to become future leaders in healthcare delivery, to the varied experiences and aspects of innovation and technology. At the completion of this scholarly track, students will have:

- (a) a stronger working knowledge of the fundamentals of healthcare innovation & entrepreneurship;
- (b) the ability to evaluate current technological advancements and imagine applications for future state and
- (c) applied their learned knowledge and skills in mentored innovation and technology projects and scholarship.

Medical Innovation & Technology Projects

The Scholarly Concentrations Program will provide students with a list of course directors and teaching faculty who are seeking help in performing research centered around various aspects of the innovation and technology continuum. Students will also be free to approach faculty with their own original ideas for scholarship.

Potential 1st Year Summer Activities

Students will, over the course of their 1st year summer (2 months), undertake scholarly work in the form of a scoping review of their proposed focus within the innovation and technology landscape. The goal of this review is to develop an in depth understanding of the topic and create an action plan and timeline for completion of the project. For example, a student may develop a needs assessment survey to identify gaps and/or areas of focus related to their project. Alternatively, a student may design and initiate a chart review on outcomes related to the innovative use of technology in healthcare.

For students who may have had a predefined interest, this time may also be used to initiate the project. This may, for example, be the case for students with an engineering or computer science background who are able to build on a senior thesis or capstone project.

Fourth Year Requirements

Students must complete two months of work towards the Medical Innovation & Technology Track in the fourth year. The scholarly project may take many forms and may vary according to the specific area within the innovation and technology continuum the student chooses. Examples could be:

- Scoping review and subsequent narrative ready for publication describing an evolving focus within medical innovation
- Completion and analysis of the needs assessment survey
- Completion and analysis of a chart review of the utility of the innovation in the delivery of healthcare
- Proposal of a novel approach or device, resulting in an invention disclosure and provisional patent application
- Develop an approach to scaling an innovation or technology for use by other health systems (e.g. other medical departments, community hospitals, medical education, etc.)

Academic Requirement

Applicants to the Medical Innovation and Technology Track of the Scholarly Concentrations program must successfully complete the Responsible Conduct in Research seminar.

Additionally, students will be required to complete 10 hours of academic work in addition to their project.