Health Sciences and Technology (HST)

Summer Session Representative
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No regular classes are offered by the Health Sciences and Technology Program during the summer term.

Current MIT students can take arranged-unit subjects such as UROP, Special Studies, Research, Internship, Co-op, Independent Study, Thesis Preparation, or Thesis during the Summer Session by prior arrangement with a faculty member.

The following pre-thesis research subjects have subsidized tuition:

- HST.015 MATLAB for Medicine
- HST.190/HST.191 Introduction to Biostatistics
- HST.198 Independent Study in Health Sciences and Technology
- HST.199 Research in Health Sciences and Technology
- HST.201 Introduction to Clinical Medicine and Medical Engineering I
- HST.202 Introduction to Clinical Medicine and Medical Engineering II
- HST.599 Research in Health Sciences and Technology

See Tuition (http://catalog.mit.edu/summer/tuition-financial-aid) for details of the policy concerning these subjects.

IMPORTANT NOTES regarding preclinical subjects (HST.011-HST.176-HST.176 and HST.191):
Students not enrolled in an HST graduate degree program are limited to two HST preclinical courses and must provide justification for enrolling in these courses. This action must be approved by the course director and the students advisor. These subjects are scheduled according to the Harvard Medical School academic calendar, which differs from the MIT calendar. Students whose graduation depends upon completing one or more of these subjects should take particular care regarding the schedule.

HST.015 MATLAB for Medicine
Prereq: None
G (Summer)
2-0-4 units
08/01/2018–08/30/2018, T/Th 9 am-12 pm, Harvard Medical-MEC 227

Practical introduction to use of quantitative methods in medicine and health research. Each session covers a different topic in quantitative techniques, provides an application to medicine, and includes a modeling activity using MATLAB. Students also complete problem sets.

HST.191 Introduction to Biostatistics
Subject meets with HST.190
Prereq: Calculus II (GIR)
G (Summer)
3-0-3 units
07/30/2018–08/31/2018, M/W/F 9 am-12 pm, Harvard Medical-MEC 209, Meets with HST.190

Provides training on how to comprehend, critique and communicate findings from biomedical literature. Considers how to assess the importance of chance in the interpretation of experimental data. Topics include probability theory, chi-squared and t-tests, ANOVA, linear and logistic regression, survival analysis, and statistical analysis using MATLAB. Includes critical reading of studies published in medical literature. Only HST students may register under HST.190, graded P/D/F.

HST.201 Introduction to Clinical Medicine and Medical Engineering I
Prereq: Permission of instructor
G (Summer)
0-20-0 units
05/29/2018–06/29/2018, M-F 9 am-5 pm, Section B1 meets at Mt. Auburn Hospital Section B2 meets at West Roxbury VA Hospital

Develop skills in patient interviewing and physical examination; become proficient at organizing and communicating clinical information in both written and oral forms; begin integrating history, physical, and laboratory data with pathophysiologic principles; and become familiar with the clinical decision-making process and broad economic, ethical, and sociological issues involved in patient care. There are two sections: one at Mount Auburn Hospital and one at West Roxbury VA Hospital, subsequent registration into HST.202 must be continued at the same hospital as HST.201.

HST.202 Introduction to Clinical Medicine and Medical Engineering II
Prereq: HST.201
G (Fall, IAP, Spring, Summer)
0-20-0 units
West Roxbury VA Hospital, Meeting days/times, and start/end dates are individually arranged.

Strengthens the skills developed in HST.201 through a six-week clerkship in medicine at a Harvard-affiliated teaching hospital. Students serve as full-time members of a ward team and participate in longitudinal patient care. In addition, students participate in regularly scheduled teaching conferences focused on principles of patient management.