Harvard-MIT Health Sciences and Technology
Contract for Technical Qualifying Exam (TQE)

Name: _____ **Email:** _____

Advisor: _____ **Research Advisor** (if known)**:**_____

I. Concentration Area (check one):

❑ Aeronautics & Astronautics   ❑ Chemistry   ❑ Mechanical Engineering
❑ Biological Engineering   ❑ Computer Science   ❑ Nuclear Science & Engineering
❑ Brain & Cognitive Sciences   ❑ Electrical Engineering   ❑ Physics
❑ Chemical Engineering   ❑ Materials Science & Engineering

NOTE: Students wishing to change their TQE concentration area after submission of this form must submit a written petition to the QuEHST committee.

II. Concentration Subject Selection
List a plan below which fulfills the requirements of your concentration area; a summary subject grid can be found on the back of this form and detailed information about each concentration area is available on the HST website: http://hst.mit.edu/academics/memp/concentration-areas

Alternate Subject: We recommend all students designate an additional subject on their plan as an alternate, for planning purposes. Any student listing a TQE subject in which they have already earned a "B" during their 1st semester MUST include an alternate subject.

NOTE: Students may make changes to their TQE class selections until ADD date of the term in which they are enrolled in the class being added to their TQE. Under no circumstances will students be permitted to add a class to their TQE after earning a grade in the class. To make a change, email Traci Anderson in the HST Academic Office with a cc. to your academic advisor by ADD date.

Subject number	Subject Title	Units*	Term/Year (eg. Spring 2017)
			[ALTERNATE]

* 42 units required, may require 5 subjects in certain concentration areas.

III. Other TQE Subject Requirements
All students must also take **Human Pathology** (HST030/031 or HST034/035) and
Introduction to (Bio)Medical Engineering and Medical Physics (HST500) as part of their TQE.

_____   _____
Student Signature/Date   Academic Advisor Signature/Date

Aeronautics and Astronautics

Choose Two Core Classes:
16.422; 16.423; 16.453

Select remaining requirements from Core Classes or Additional Classes:
16.470; 16.456J; 2.183J; 16.413; 16.89; 16.895; 22.55J

Biological Engineering

choose BOTH
20.420J and 20.440

choose at least ONE
[20.C51J + 6.C51], 20.201; 20.405J; 20.410J; 20.415; 20.430J; 20.463J; 20.490

20.203J; 20.215; 20.409; 20.446J; 20.452J; 20.465; 20.470J; 20.475; HST.507J; HST.522J; HST.523J, HST.537J; HST.538J; 6.7960

Brain and Cognitive Sciences

choose ONE
9.011 or HST.131

choose at least ONE
9.012; 9.013J; 9.014; 9.015J; 9.017

9.021J; 9.073J; 9.123J; 9.181J; 9.285J; 9.301J; 9.422J; 9.520J; 9.611J; 9.660; HST.562J; HST.580J; HST.582J

Chemical Engineering

choose at least TWO
10.40; 10.50; 10.65

10.34; 10.531J; 10.537J; 10.538J; 10.539J; 10.542; 10.545; 10.546J; 10.55; 10.562J; 10.566; 10.568;10.569; 10.643J; 10.668J

Electrical Engineering

choose TWO from one group and ONE from each of two additional groups.

System Science and Control Eng.
6.C67; 6.3010; (6.7000 or 6.7010 or 6.8800J); (6.7100J or 6.7940);(6.C57J or 6.7210J); 6.8810J; HST.584J

Circuits and Electronic Systems
6.4861J; 6.6000; 6.6010; 6.6220

Information Science and Communication
6.7700J; 6.7710; (6.7800 or 6.7810); 6.7900; 6.8300

Electromagnetics
6.4832J; 6.6210; 6.6280; 6.6300; (6.6310 or 2.710); 6.6340J

Physical Science and Engineering:
6.4812J; 6.6400; 6.6500J; 6.6510; HST.583

Other
(6.7300J or 6.7330J)

Chemistry

42 UNITS required, may need 5 subjects

5.05; 5.061; 5.062; 5.068; 5.44 5.45; 5.46; 5.511; 5.512; 5.52; 5.53; 5.54J; 5.56; 5.64J; 5.68J; 5.698J; 5.70J; 5.72; 5.73; 5.74; 5.78; 5.83; 7.51; 10.569; [20.C51J + 6.C51]; 20.201; 20.420J; 20.463J; 20.465; BCMP 250 (HU); CHEM 170 (HU)

Computer Science

choose TWO from one group and ONE from each of the other groups

Algorithms
6.1220J; 6.5210J; 6.5220J; 6.5250J; 6.7310J; 6.7320J

Probability/Statistics
6.7300J; 6.7700J; 6.7800; 6.7810; 6.7900; 6.7960; 9.520J; 15.077J; 16.391; HST.460J; STAT 211 (HU)

Applications
2.740, 6.4812J; 6.7920[J]; 6.8200; 6.8210; 6.8300; 6.8420; (6.8610J or 6.8620J or 6.8630J); 6.8700J; 6.8710J; 6.8800J; 6.8810J; 8.591J; 18.417; HST.538J; HST.956J; BioPhys 205 (HU)

Materials Science and Engineering

Choose BOTH
3.20 and 3.21

3.22; 3.23; 3.40J; 3.46; 3.941J; 3.942; (3.963J or 3.971J)

Mechanical Engineering

choose at least TWO from the first group; if you choose more you may include from sets marked with *

2.032; 2.066; (2.071 or 2.072 or 2.080J)*; (2.097J or 2.29)*; (2.140 or 2.151 or 2.153)*; 2.25; 2.37; 2.42; 2.55; 2.675, (2.710 or 6.6310); 2.75J; (2.720 or 2.77); (2.794J; 2.795J or 2.798J)*; 2.810

2.174, 2.183J; 2.341J; 2.740, (2.782J or 2.785J or 2.79J or 3.963J); 3.23; HST.537J; HST.582J

Nuclear Science and Engineering

42 UNITS required, may need 5 subjects

22.11; 22.12; 22.13; 22.14; 22.15; 22.51J; 22.55J

Physics

No more than TWO from the first group

8.591J; 8.592J; 8.593J

8.311; 8.321; 8.322; 8.333; 8.334; 8.351J; 8.421; 8.422; 8.511; 8.512; 8.613J; 8.701