

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

Name: _____ Email: _____

Advisor: _____ Research Advisor (if known): _____

I. Concentration Area (check one):

- | | | |
|---|--|--|
| <input type="checkbox"/> Aeronautics & Astronautics | <input type="checkbox"/> Chemistry | <input type="checkbox"/> Mechanical Engineering |
| <input type="checkbox"/> Biological Engineering | <input type="checkbox"/> Computer Science | <input type="checkbox"/> Nuclear Science & Engineering |
| <input type="checkbox"/> Brain & Cognitive Sciences | <input type="checkbox"/> Electrical Engineering | <input type="checkbox"/> Physics |
| <input type="checkbox"/> Chemical Engineering | <input type="checkbox"/> 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 <i>(eg. Spring 2017)</i>
			[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	Biological Engineering	Brain and Cognitive Sciences	Chemical Engineering	
<p>Choose Two Core Classes: 16.422; 16.423; 16.453</p> <p>Select remaining requirements from Core Classes or Additional Classes: 16.470; 16.456J; 2.183J; 16.413; 16.89; 16.895; 16.893; 22.55J</p>	<p>choose BOTH 20.420J and 20.440</p> <p>choose at least ONE [20.C51J + 6.C51], 20.201; 20.405J; 20.410J; 20.415; 20.430J; 20.463J; 20.490</p> <p>20.203J; 20.215; 20.409; 20.446J; 20.452J; 20.465; 20.470J; 20.475; HST.507J; HST.508;HST.522J;HST.523J, HST.537J; HST.538J</p>	<p>choose ONE 9.011 or HST.131</p> <p>choose at least ONE 9.012; 9.013J; 9.014; 9.015J; 9.017</p> <p>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</p>	<p>choose at least TWO 10.40; 10.50; 10.65</p> <p>10.34; 10.524; 10.531J; 10.537j; 10.538J; 10.539J; 10.542; 10.545; 10.546J; 10.55; 10.562J; 10.566; 10.568; 10.569; 10.595; 10.643J; 10.668J</p>	
Chemistry	Computer Science		Electrical Engineering	
<p>42 UNITS required, may need 5 subjects</p> <p>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)</p>	<p>choose TWO from one group and ONE from each of the other groups</p> <p><u>Algorithms</u> 6.1220J; 6.5210J; 6.5220J; 6.5250J; 6.7310J; 6.7320J</p> <p><u>Probability/Statistics</u> 6.7300J; 6.7700J; 6.7800; 6.7810; 6.7900; 6.S898 (FALL 2023 only); 9.520J; 15.077J; 16.391; HST.460J; STAT 211 (HU)</p> <p><u>Applications</u> 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.508; HST.538J; HST.956J; BioPhys 205 (HU)</p>		<p>choose TWO from one group and ONE from each of two additional groups.</p> <p><u>System Science and Control Eng.</u> 6.C67; 6.3010; (6.7000 or 6.7010 or 6.8800J); (6.7100J or 6.7940);(6.7200J or 6.7210J); 6.8810J; HST.584J</p> <p><u>Circuits and Electronic Systems</u> 6.4861J; 6.6000; 6.6010; 6.6220</p> <p><u>Information Science and Communication</u> 6.7410; 6.7420; 6.7470; 6.7700J; 6.7710; (6.7800 or 6.7810); 6.7900; 6.8300</p> <p><u>Electromagnetics</u> 6.4832J; 6.6280; 6.6300; (6.6310 or 2.710); 6.6340J</p> <p><u>Physical Science and Engineering:</u> 6.4812J; 6.6400; 6.6500J; 6.6510</p> <p><u>Other</u> (6.7300J or 6.7330J)</p>	
Materials Science and Engineering	Mechanical Engineering		Nuclear Science and Engineering	Physics
<p>Choose BOTH 3.20 and 3.21</p> <p>3.22; 3.23; 3.40J; 3.46; 3.941J; 3.942; (3.963J or 3.971J)</p>	<p>choose at least TWO from the first group; if you choose more you may include from sets marked with *</p> <p>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)*</p> <p>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</p>		<p>42 UNITS required, may need 5 subjects</p> <p>22.11; 22.12; 22.13; 22.14; 22.15; 22.51J; 22.55J</p>	<p>No more than TWO from the first group</p> <p>8.591J; 8.592J; 8.593J</p> <p>8.311; 8.321; 8.322; 8.333; 8.334; 8.351J; 8.421; 8.422; 8.511; 8.512; 8.613J; 8.701</p>