

**New Curriculum - Class of 2011 Forward | Bachelors and M.Eng. Requirements Checklist**  
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY, *Department of Electrical Engineering and Computer Science*

Bachelors in 6-1 (Electrical Engineering)

Spring 2013

Bachelors in 6-2 (Electrical Engineering and Computer Science)

Bachelors in 6-3 (Computer Science)

|        |          |
|--------|----------|
| Name:  | ID:      |
| Email: | Advisor: |

| INSTITUTE REQUIREMENTS                                                                                                                                      |               |              |       | DEPARTMENT REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------|-------|
|                                                                                                                                                             | Subject       | Term         | Grade |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Subject                    | Term | Grade |
| Chemistry                                                                                                                                                   | 3.091/5.11    |              |       | <b>Introductory (2)</b><br>(6-1, 6-2, 6-3) Inst. Lab<br><b>Mathematics (2)</b><br><b>6-1:</b> 18.03, 6.041<br><b>6-2:</b> 18.03 or 18.06, 6.041 or 6.042<br><b>6-3:</b> 18.03 or 18.06; 6.042J<br><b>Foundations</b><br><b>6-1:</b> (3 EE Foundations)<br><b>6-2:</b> (4 Total:<br>2 EE Foundations and<br>2 CS Foundations)<br><b>6-3:</b> (3 CS Foundations)<br><b>Department Lab (1)</b><br><b>6-1, 6-2:</b> 6.100 - 6.182, 6.035, 6.813 (6.828), 20.345<br><b>6-3:</b> 6.141, 6.170, 6.172, 6.173, 6.035, 6.813, 6.828, 6.S195<br><b>Headers (3)</b><br><b>6-1:</b> 3 EE Headers<br><b>6-2:</b> 3 with at least 1 EE and at least 1 CS Header<br><b>6-3:</b> 3 CS Headers<br>Advanced Undergraduate Subjects (2)<br>Use the link for the AUS site, below.<br><b>Advanced Project (2)</b><br>6.UAT<br>6.UAP or 6.UAR or an additional CIM D Lab | 6.01                       |      |       |
| Biology                                                                                                                                                     | 7.01          |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.02                       |      |       |
| Calculus                                                                                                                                                    | 18.01         |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
|                                                                                                                                                             | 18.02         |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| Physics                                                                                                                                                     | 8.01          |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
|                                                                                                                                                             | 8.02          |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| Institute Lab (1)                                                                                                                                           | 6.01 (1/2)    |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
|                                                                                                                                                             | and 6.02(1/2) |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| REST (2)                                                                                                                                                    |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>EE Foundations</b>      |      |       |
| 18.03 or 18.06                                                                                                                                              |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.002                      |      |       |
| 6.041 or 6.042                                                                                                                                              |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.003                      |      |       |
| HASS requirement:                                                                                                                                           |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.007                      |      |       |
| HASS-D                                                                                                                                                      |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>EE or CS Foundation</b> |      |       |
| HASS-D                                                                                                                                                      |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.004                      |      |       |
| HASS-D                                                                                                                                                      |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>CS Foundations</b>      |      |       |
| Concentration                                                                                                                                               |               |              |       | 6.005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
| Concentration                                                                                                                                               |               |              |       | 6.006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
| Concentration                                                                                                                                               |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| Conc/Elective                                                                                                                                               |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| Elective                                                                                                                                                    |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| <b>Unrestricted Electives (Everything Else!)</b>                                                                                                            |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| <b>Subject</b>                                                                                                                                              | <b>Term</b>   | <b>Grade</b> |       | <b>EE Headers</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |      |       |
|                                                                                                                                                             |               |              |       | 6.011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
|                                                                                                                                                             |               |              |       | 6.012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
|                                                                                                                                                             |               |              |       | 6.013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
|                                                                                                                                                             |               |              |       | 6.021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
|                                                                                                                                                             |               |              |       | <b>CS Headers</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |      |       |
|                                                                                                                                                             |               |              |       | 6.033                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
|                                                                                                                                                             |               |              |       | 6.034                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
|                                                                                                                                                             |               |              |       | 6.046                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                            |      |       |
| *For unit requirements, consult:<br><a href="http://web.mit.edu/catalogue/degre.engin.elect.shtml">http://web.mit.edu/catalogue/degre.engin.elect.shtml</a> |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| 3rd Year CI-M: Juniors must take at least one of the Course VI 3rd year CIM classes.                                                                        |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |
| Use the CI-M, Communications Reqmnts site, below.                                                                                                           |               |              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |      |       |

Dept. Requirements may be used to satisfy the Institute Lab (6.01, 6.02), the REST and CI-M requirements.  
 Otherwise: NO DOUBLE COUNTING.

<http://www.eecs.mit.edu/academics-admissions/undergraduate-programs/curriculum/advanced-undergraduate-subjects>  
<http://www.eecs.mit.edu/academics-admissions/undergraduate-programs/curriculum/communication-requirement>

(AUS site)  
 (Communication Req.)

## New M.Eng. Program in EECS for students who completed the new undergraduate curriculum

Four H-level graduate subjects totaling at least **42 units** of which at least **36 units** are from **EECS subjects**.

Two subjects (24 units) from Restricted Electives list

66 units total in graduate program; plus 24 units M.Eng. thesis (6.THM)

90 units TOTAL

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**Restricted Electives** (2 subjects): 6.041, 8.044, 18.04, 18.06, 6.042J, 6.436, 18.085, 18.086, 18.100, 18.311, 18.330, 18.353, 18.703, 18.781, 18.440, 18.075, 18.700 Approved Substitutions:

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**The AUS requirement** is either 2 AUS subjects or 1 AUS and 1 of these subjects: 6.111, 6.115, 6.131. These cannot also be counted for Lab or other requirement from your SB program.

**Concentration Fields** (one three-subject concentration from among the 2 AUS and 4 grad-H subjects; at least one of the concentration subjects must be grad-H.)

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**Applied Physics** AUS: 6.061, 6.602 \*(ends FT12), 6.641

Grad-H: 6.621, 6.630, 6.631, 6.632, 6.634, 6.637, 6.638, 6.641, 6.642, 6.644, 6.645, 6.685, 6.690, 6.691, 6.695

Approved Substitution:

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**Artificial Intelligence** AUS: 6.141 or 6.142, 6.801, 6.802, 6.803, 6.804, 6.813, 6.863, 6.867

Grad-H: 6.345, 6.437, 6.438, 6.831, 6.832, 6.833, 6.834, 6.863, 6.864, 6.866, 6.867, 6.868, 6.869, 6.872, 6.881, 6.882, 6.945, 6.946

Approved Substitution:

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**BioEECS** AUS: 6.022, 6.023, 6.047, 6.048, 6.049, 6.502, 6.503, 6.802

Grad-H: 6.345, 6.521, 6.522, 6.524, 6.541, 6.542, 6.544, 6.545, 6.551, 6.552, 6.555, 6.556, 6.561, 6.580, 6.581, 6.582, 6.589, 6.872, 6.874, 6.877, 6.878

Approved Substitution:

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**Circuits** AUS: 6.301, 6.302

Grad-H: 6.331, 6.332, 6.333, 6.334, 6.374, 6.375, 6.376, 6.775, 6.776

Approved Substitution:

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**Communications** AUS: 6.207, 6.255, 6.36, 6.434, 6.437

Grad-H: 6.231, 6.260, 6.261, 6.262, 6.263, 6.264, 6.265, 6.266, 6.267, 6.268, 6.435, 6.436, 6.438, 6.440, 6.441, 6.442, 6.443, 6.450, 6.451\*, 6.452, 6.453, 6.859

Approved Substitution:

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**Computer Systems** AUS: 6.035 (if not used as Lab), 6.172 (not if used as Lab), 6.173 (if not used as lab), 6.805, 6.814, 6.824, 6.829

Grad-H: 6.820, 6.821, 6.823, 6.828, 6.830, 6.846, 6.857, 6.858, 6.883, 6.884, 6.885, 6.886, 6.887, 6.888

Approved Substitution:

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**Control** AUS: 6.302 Grad-H: 6.231, 6.241, 6.242, 6.243, 6.245, 6.246, 6.247

Approved Substitution:

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**Graphics and Human-Computer Interfaces** AUS: 6.801, 6.813 (if not used for Lab), 6.815, 6.835, 6.837

Grad-H: 6.831, 6.838, 6.839, 6.865, 6.870, 6.894, 6.895, 6.896

Approved Substitution:

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**Materials, Devices and Nanotechnology** AUS: 6.602, 6.701, 6.717

Grad-H: 6.719, 6.720, 6.728, 6.730, 6.731, 6.732, 6.735, 6.736, 6.763, 7.772, 6.774, 6.777, 6.780J, 6.781, 6.789

Approved Substitution:

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**Numerical Methods** AUS: 6.336

Grad-H: 6.248, 6.249, 6.251, 6.252, 6.253, 6.254, 6.255, 6.256, 6.337, 6.338, 6.339, 6.581, 6.673

Approved Substitution:

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**Signals and Systems** AUS: 6.341 Grad-H: 6.342, 6.344, 6.345, 6.347, 6.348, 6.456, 6.555, 6.556

Approved Substitution:

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**Theoretical Computer Science** AUS: 6.045, 6.840, 6.854

Grad-H: 6.841, 6.842, 6.845, 6.849, 6.850, 6.851, 6.852, 6.853, 6.856, 6.875, 6.876, 6.889, 6.890, 6.891, 6.892, 6.893

Approved Substitution:

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\*no longer satisfies requirement; but can be used if taken before FT11.