MUSIC AND TECHNOLOGY MAJOR (graduate) 2010

Core Courses 60 units
A specific set of core courses will be identified by the Graduate Advisory Committee in consultation with each student on the basis of his or her background and experience. At least 24 units will be courses in the School of Music and at least 24 units will be courses in Computer Science or Electrical and Computer Engineering. Courses fulfilling this requirement include but are not limited to the courses listed below. Core courses and support courses may include thesis research units.

<table>
<thead>
<tr>
<th>When?</th>
<th>Grade?</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Support Courses 36 units
Additional courses will be chosen by the student. A graduate student should not repeat courses previously taken as an undergraduate student at Carnegie Mellon or elsewhere. Courses fulfilling this requirement include but are not limited to the courses listed below. Core courses and support courses may include thesis research units.

<table>
<thead>
<tr>
<th>When?</th>
<th>Grade?</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Performance/Capstone Thesis 18 units

<table>
<thead>
<tr>
<th>When?</th>
<th>Grade?</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>57-971 Performance/Thesis</td>
<td>18</td>
</tr>
</tbody>
</table>

Music and Technology Seminar 4 units
Candidates for the School of Music Master of Science degree in music and technology are required to pass Sound and Music Computing Seminar every semester of residence in the School of Music.

<table>
<thead>
<tr>
<th>When?</th>
<th>Grade?</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>57-970 Sound and Music Computing Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>57-970 Sound and Music Computing Seminar</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>57-970 Sound and Music Computing Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

Elective Courses 26 units

<table>
<thead>
<tr>
<th>When?</th>
<th>Grade?</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL UNITS: 144

M.S. in Music and Technology Courses
This is not a complete list of options. Masters students are encouraged to take courses in Music, Computer Science, and Electrical Engineering and any other departments that are not specifically Music and Technology courses. For example, there are several excellent graduate courses on Machine Learning offered by various departments at Carnegie Mellon. Any of these courses can be taken, even though they are not listed here. Please see the Undergraduate Catalog for a complete undergraduate course listing. Courses, including graduate courses, are listed in the University Schedule of Classes (with link to short course descriptions). Your advisory committee will help you select courses.

Computer Music Systems and Technology 9u
15-322 Introduction to Computer Music 9u
15-323 Computer Music Systems and Information Processing 9u
60-439 Advanced SIS: Hybrid Instrument Building 10u
Signal Processing 12u
18-290 Signals and Systems 12u
18-491 Digital Signal Processing 12u
18-551 Digital Communication and Signal Processing System Design 12u
18-792 Advanced Digital Signal Processing 12u
18-798 Image, Video, and Multimedia 12u
Music Information Retrieval 12u
11-755 Machine Learning for Signal Processing 12u
15-826 Multimedia Databases and Datamining 12u
Machine Learning 12u
10-601 or 10-701 Intro to Machine Learning 12u
10-705 Intermediate Statistics 12u
Acoustics/Recording/Instrument Design 12u
18-493 Electrocrocuistics 6u
57-509 Sound Recording 6u
57-988 Sound Editing and Mastering 6u
57-949 Multitrack Recording 6u
48-726 Environment II: Acoustics and Lighting 9u
Music Cognition/Perception 9u
85-756 (Graduate) Music and Mind: The Cognitive Neuroscience of Sound 9u
85-785 Auditory Perception: Sense of Sound var.
57-441 Analysis of 19th Century Music 9u
57-442 Analytical Techniques 9u
57-430 Music of Iran 9u
57-605 Theory and Analysis for Graduate Students 6u
57-700 Schenker Analysis 9u
57-934 Advanced Analytic Techniques 9u
57-968 20th Century Techniques 6u
57-954 Shaping Time in Performance 9u
57-709 The Beatles 9u
79-345 The Roots of Rock and Roll, 1870-1970 9u
57-377 Psychology of Music 9u
57-721 Major Studio (Composition) 9u
57-258 20th and 21st Century Techniques 6u
57-272x Orchestration 6u
Performance 6u
57-xxx Technologically-assisted performance independent study var.

In addition, many of our masters students take undergraduate courses to strengthen their knowledge in areas where they do not already have a strong background. See the B.S. in Music and Technology Curriculum for suggestions.