BACHELOR OF SCIENCE IN COMPUTER SCIENCE AND MUSIC (CS + MUSIC)

Professor Jeffrey Magee, Director
School of Music
2040 Music Building
1114 West Nevada, Urbana

PH: (217)244-6449
http://music.illinois.edu

The Bachelor of Science in Computer Science and Music (CS + Music) is designed for students who plan to pursue a career in music technology, as well as students who want to push the state-of-the-art in music composition and explore new avenues of expression. This degree will prepare students for advanced study at the graduate level for many existing programs in music and audio technology, as well as equip them with the proper skills to successfully join and lead a vibrant workforce centered around the creation and distribution of entertainment media through constantly evolving technological platforms.

The CS + Music curriculum provides a broad knowledge of the theory, design, and application of computer systems integrated with the theory, history, and application of music. The curriculum is formed around courses in music, mathematics, science, and computation. Advanced coursework includes either a senior thesis or a senior project. A minimum of 120 hours is required for graduation.

For admission requirements for the Bachelor of Science in CS + Music, please see the School of Music's Admissions website or contact the Music Admissions Office:

Music Admissions Office
School of Music
1114 W Nevada Street
Urbana, IL 61801

(217)244-7899
E-mail: musicadmissions@illinois.edu

General Education and College Orientation

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAA 101</td>
<td>Arts at Illinois</td>
<td>1</td>
</tr>
</tbody>
</table>

General Education Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Composition I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Advanced Composition</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities and the Arts</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Cultural Studies: Western/Comparative Culture(s)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Cultural Studies: Non-Western Culture(s)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Cultural Studies: U.S. Minority Culture(s)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Natural Sciences and Technology</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Quantitative Reasoning I and II</td>
<td>6</td>
</tr>
</tbody>
</table>

Music Core Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 101</td>
<td>Music Theory and Practice I</td>
<td>2</td>
</tr>
<tr>
<td>MUS 102</td>
<td>Music Theory and Practice II</td>
<td>2</td>
</tr>
<tr>
<td>MUS 201</td>
<td>Music Theory and Practice III</td>
<td>2</td>
</tr>
<tr>
<td>MUS 107</td>
<td>Musicianship I</td>
<td>2</td>
</tr>
<tr>
<td>MUS 108</td>
<td>Musicianship II</td>
<td>2</td>
</tr>
<tr>
<td>MUS 207</td>
<td>Musicianship III</td>
<td>2</td>
</tr>
<tr>
<td>MUS 208</td>
<td>Musicianship IV</td>
<td>1</td>
</tr>
</tbody>
</table>

Musicology

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 110</td>
<td>Introd Art Mus: Intl Perspect</td>
<td>2</td>
</tr>
<tr>
<td>MUS 313</td>
<td>The History of Music I</td>
<td>3</td>
</tr>
<tr>
<td>MUS 314</td>
<td>The History of Music II</td>
<td>3</td>
</tr>
</tbody>
</table>

Performance Studies 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 172</td>
<td>Grp Instr Pno for Mus Major I</td>
<td>2</td>
</tr>
<tr>
<td>MUS 173</td>
<td>Grp Instr Pno for Mus Maj II</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Hours 25

Computer Science

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 125</td>
<td>Intro to Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CS 126</td>
<td>Software Design Studio</td>
<td>3</td>
</tr>
<tr>
<td>CS 173</td>
<td>Discrete Structures</td>
<td>3</td>
</tr>
<tr>
<td>CS 225</td>
<td>Data Structures 3</td>
<td>4</td>
</tr>
<tr>
<td>CS 233</td>
<td>Computer Architecture</td>
<td>4</td>
</tr>
<tr>
<td>CS 241</td>
<td>System Programming</td>
<td>4</td>
</tr>
<tr>
<td>CS 361</td>
<td>Probability &amp; Statistics for Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CS 374</td>
<td>Introduction to Algorithms &amp; Models of Computation</td>
<td>3</td>
</tr>
<tr>
<td>CS 421</td>
<td>Progrmg Languages &amp; Compilers</td>
<td>3</td>
</tr>
<tr>
<td>CS 498</td>
<td>Special Topics (Audio Signal Processing)</td>
<td>3</td>
</tr>
</tbody>
</table>

Math

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 220</td>
<td>Calculus</td>
<td>5</td>
</tr>
<tr>
<td>MATH 231</td>
<td>Calculus II</td>
<td>3</td>
</tr>
</tbody>
</table>

Information listed in this catalog is current as of 07/2018
MATH 225  Introductory Matrix Theory  2

Total Hours  67-68

1. Completion of both MUS 313 and MUS 314 meets the general education requirement for Humanities and the Arts.
2. All students must demonstrate keyboard competency by examination when they matriculate or by enrolling in MUS 172 and/or MUS 173. It is possible to proficiency out of group piano courses through proficiency examination.
3. Completion of both CS 125 and CS 225 meets the general education requirement for Quantitative Reasoning I and Quantitative Reasoning II.
4. Students who are more interested in systems building can substitute CS 427 (Software Engineering I) for CS 361.
5. Students must take the ALEKS placement exam for course entry.