# Leadership in Medicine Curriculum Worksheet

## Core LIM Math/Science Courses

Students must take a minimum of 16 Math/Science courses.

### Biology

All LIM Students Take:
- BIO 103 Diversity of Life w/lab (F,W,S)
- BIO 104 Cellular Foundations of Life w/lab (F,W,S)
- BIO 205 Topics in Molecular Biology (F,W,S)
- BIO 206 Topics in Physiology (F,W,S)
- BIO 210 Neuroscience: Mind and Behavior. (must be taken during the 3rd summer)
- One of the following upper level BIO or BCH courses (not all courses offered each year – check catalog):
  - BIO 330 Comparative Animal Physiology
  - BIO 332 Comparative Vertebrate Anatomy
  - BIO 352 Microbiology
  - BIO 354 Developmental Biology
  - BIO 355 Immunology
  - BIO 362 Experimental Neurobiology
  - BIO 330 Introduction to Cellular Neuroscience
  - BIO 368 Advanced Molecular Biology
  - BIO 378 Cancer Cell Biology
  - BIO 384 Molecular Genetics
  - BCH 380 Biochemistry: Membranes, Nucleic Acids, Carbs
  - BCH 382 Biochemistry: Structure and Catalysis

### Physics

All LIM Students Take:
- PHY 110 Classical & Modern Physics for the Life Sciences I (F,S)
- PHY 111 Classical & Modern Physics for the Life Sciences II (F,W)

### Chemistry (Course requirements vary based on placement.)

<table>
<thead>
<tr>
<th>Placement</th>
<th>Course Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 101</td>
<td>CHM 101 Intro to Chemistry I (F,W,S)</td>
</tr>
<tr>
<td>CHM 102</td>
<td>CHM 102 Intro to Chemistry II (W,S)</td>
</tr>
<tr>
<td>CHM 231</td>
<td>CHM 231 Organic Chemistry I (F,W)</td>
</tr>
<tr>
<td>CHM 232</td>
<td>CHM 232 Organic Chemistry II (W,S)</td>
</tr>
<tr>
<td>CHM 110H</td>
<td>CHM 110H Accelerated Intro to Chemistry (F)</td>
</tr>
<tr>
<td>MTH 110</td>
<td>MTH 110 Calculus I (F,W)</td>
</tr>
<tr>
<td>MTH 112</td>
<td>MTH 112 Calculus II (W,S)</td>
</tr>
<tr>
<td>MTH 113</td>
<td>MTH 113 AP Calculus (F)</td>
</tr>
<tr>
<td>MTH 115</td>
<td>Math/Science Elective</td>
</tr>
</tbody>
</table>

### Mathematics (course requirements vary based on placement)

<table>
<thead>
<tr>
<th>Placement</th>
<th>Course Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 110H</td>
<td>MTH 113 AP Calculus (F)</td>
</tr>
<tr>
<td>MTH 110</td>
<td>Math/Science Elective</td>
</tr>
<tr>
<td>MTH 113</td>
<td>Math/Science Elective</td>
</tr>
<tr>
<td>MTH 115</td>
<td>Math/Science Elective</td>
</tr>
</tbody>
</table>

### Additional Math/Science Courses Based on ID Major

<table>
<thead>
<tr>
<th>Biology</th>
<th>Chemistry</th>
<th>Biochemistry</th>
<th>Mathematics</th>
<th>Physics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisor: Prof Pytel</td>
<td>Advisor: Prof Kehlbeck</td>
<td>Advisor: Prof Cohen</td>
<td>Advisor: Prof Khatami</td>
<td>Advisor: Prof LaBrake</td>
</tr>
<tr>
<td>BIO 330, 380 or BCH 382</td>
<td>BCH 382</td>
<td>BCH 380</td>
<td>Biochemistry BIO 330, 380 or BCH 382</td>
<td>Biochemistry BIO 330, 380 or BCH 382</td>
</tr>
<tr>
<td>BIO 200+ w/lab Elective</td>
<td>CHM 240</td>
<td>BCH 382</td>
<td>PHY 122</td>
<td>PHY 122</td>
</tr>
<tr>
<td>BIO 200+ w/lab Elective</td>
<td>CHM 200+ w/lab or 300+ Elective</td>
<td>CHM 240</td>
<td>PHY 123</td>
<td>PHY 123</td>
</tr>
<tr>
<td>BIO 200+ w/lab Elective</td>
<td>BIO 330, 332, 340, or 351</td>
<td>CHM 330, 332, 355, 363, 368, 378, 384</td>
<td>PHY 200</td>
<td>PHY 200</td>
</tr>
<tr>
<td>BIO 200+ w/lab Elective</td>
<td>BIO 352, 354, 355, 363, 368, 378, 384</td>
<td>MTH 200+ Elective*</td>
<td>PHY 210</td>
<td>PHY 210</td>
</tr>
<tr>
<td>BIO 200+ w/lab Elective</td>
<td>BHC 382</td>
<td>MTH 200+ Elective*</td>
<td>One additional PHY elective: PHY 220, 230, 270, 310 or 311</td>
<td>One additional PHY elective: PHY 220, 230, 270, 310 or 311</td>
</tr>
</tbody>
</table>

*students should consult Professor Khatami for elective course selections

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**Fall 2019**
## LIM Non-Math/Science Courses
(Students complete 15 non Math/Science courses, which includes a Statistics course or elective taken in its place)

All LIM Students Take:

- **LRS 150 LIM Research Seminar** (2nd S)
- **Statistics**: AP credit can meet Stats requirement. Replace with a non-science course. The LIM Statistics requirement can be met with the following courses: STA 104, ECO 243, SOC 300, PSC 220, PSY 200
- **HC 630** (1st F, also counts as a graduate course)
- **HC 633** (2nd W, also counts as a graduate course)

### Second ID Major Courses (typically eight): Please check with your second ID major advisor regarding thesis requirement

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### Three Non Science Electives

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### International Experience: Mini Terms may be applied toward ID or count as free non-Science elective depending on credit offered. Director must approve all International Experiences

### Graduate Courses

#### Master of Science Courses (12 courses required for MS Degree)

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HC 630 Introduction to Health Systems</strong> (1st F – also counts as an undergraduate course)</td>
<td></td>
</tr>
<tr>
<td><strong>HC 633 Health Care Leadership</strong> (2nd W – also counts as an undergraduate course)</td>
<td>HC 630</td>
</tr>
<tr>
<td><strong>AC 604 Financial &amp; Managerial Accounting for Decision Making</strong></td>
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<tr>
<td><strong>HC 605 Health Operations Management</strong></td>
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<tr>
<td><strong>HC 617 Health Care Finance</strong></td>
<td>AC 604</td>
</tr>
<tr>
<td><strong>HC 634 Health &amp; Human Values I</strong> (3rd Su) (replace with HC 650 beginning summer 2020)</td>
<td>HC 630, HC 633</td>
</tr>
<tr>
<td><strong>HC 635 Economics of Health</strong> (3rd S) or <strong>HC 620 Health Economics</strong> (only open MBA candidates)</td>
<td>HC 630, HC 633</td>
</tr>
<tr>
<td><strong>HC 637 Clinical Leadership Practicum</strong> (4th S – course scheduled once a month throughout senior year and includes additional scheduled classes in Spring term)</td>
<td>HC 630, HC 633</td>
</tr>
<tr>
<td><strong>HC 651 Health Systems Management</strong> (3rd W)</td>
<td>HC 630, HC 633</td>
</tr>
<tr>
<td><strong>HC 656 Group Practice Management</strong> (3rd Summer)</td>
<td>HC 651</td>
</tr>
<tr>
<td><strong>HC 674 Legal Aspects of Health Care</strong></td>
<td>HC 630, HC 633</td>
</tr>
<tr>
<td><strong>HC 684 Health Leadership Capstone</strong></td>
<td>ALL</td>
</tr>
</tbody>
</table>

#### Additional Courses required for MBA (16 courses required for MBA degree)

<table>
<thead>
<tr>
<th>Course</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HC 647 Statistical Methods for Data Analytics</strong></td>
<td>Statistics course</td>
</tr>
<tr>
<td><strong>HC 626 Health Systems Marketing</strong></td>
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<tr>
<td><strong>HC 648 Health Informatics</strong></td>
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<tr>
<td><strong>HC 680 Health Policy &amp; Managerial Epidemiology</strong></td>
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