Appendix 2: Optics Technical Electives

Three technical electives are required. Suggested technical elective themes are listed in blue in the first row of the table below. The combinations listed below are not a mandatory sequence of technical electives; they serve as a starting point for students considering technical elective combinations. Classes in green are Optics core courses that pair up nicely with suggested electives. Choose classes in the vertical column below the technical elective theme you wish to explore or consult your adviser for additional class themes and/or combinations.

Effective Spring 2015, any 200-level engineering course may be counted as a technical elective with faculty adviser approval. This approval must be documented via email or on the semester course planning form.

<table>
<thead>
<tr>
<th>Biomedical Optics</th>
<th>Optics + Math</th>
<th>Lens Design</th>
<th>Photonic Materials/ Devices</th>
<th>Optics &amp; Physics</th>
<th>Lab Special</th>
<th>Lasers and Photonics</th>
<th>Optomechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPT 241</td>
<td>OPT 287</td>
<td>OPT 241</td>
<td>OPT 225</td>
<td>OPT 223</td>
<td>OPT 204</td>
<td>OPT 225</td>
<td>OPT 242</td>
</tr>
<tr>
<td>OPT 248</td>
<td>MTH 2XX</td>
<td>OPT 243</td>
<td>ME 280</td>
<td>PHY 235</td>
<td>OPT 253</td>
<td>ECE 235</td>
<td>ME 226</td>
</tr>
<tr>
<td>OPT 276</td>
<td>MTH 2XX</td>
<td>OPT 244</td>
<td>OPT 421*</td>
<td>PHY 227</td>
<td>OPT 257</td>
<td>OPT 465*</td>
<td>OPT 232</td>
</tr>
<tr>
<td>PHY 253</td>
<td>MTH 2XX</td>
<td>OPT 246</td>
<td>ECE 235</td>
<td>PHY 246</td>
<td>PHYS 243W</td>
<td>OPT 468*</td>
<td>OPT 432*</td>
</tr>
<tr>
<td>BME 270</td>
<td></td>
<td>OPT 247</td>
<td>OPT 468*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For students pursuing graduate studies at The Institute, these courses cannot count for both the Bachelor’s and Master’s degrees in Optics

Class                  Title
OPT 232                Opto-Mechanics
OPT 243                Optical Fabrication and Testing
OPT 244                Lens Design
OPT 246                Thin Film Coatings
OPT 247                Advanced Optical Coatings
OPT 248                Vision and the Eye
OPT 253                Quantum Optics Lab
OPT 257                Advanced Senior Laboratory
OPT 276                Biomedical Optics
OPT 421                Optical Properties of Materials
OPT 432                Intro to Optomechanics
OPT 444                Lens Design
OPT 465                Laser Systems
OPT 468                Waveguide Optoelectronic Devices
BME 270                Biomedical Microscopy
ECE 235                Intro to Optoelectronic
ME 226                 Intro to Solid Mechanics
ME 280                 Intro to Material Science
MTH 2XX                Any upper division math course
PHY 227                Thermo and Stat Mechanics
PHY 235                Advanced Classical Mechanics
PHY 243W               Advanced Lab Topics
PHY 246                Quantum Theory
PHY 253                Biological Physics