

## M.S. / Ph.D. Degree Planner: Medical Imaging (EC95) 2021-2022

- ❖ Minimum of 12 units (Plan II) 14 units (Plan I) must be 201+ ECE courses that must count toward your degree.
- ❖ All courses counted towards the degree must be taken for a letter grade, with the exception of research units.
- ❖ Students **CANNOT** repeat a course unless they earned a D, F, U, or W grade. If you'd like to repeat a course, please submit the [online form](#). More information about how to repeat a course can be found [here](#).
- ❖ Note that **ONLY** 100+ courses will count towards your overall GPA.
- ❖ Must meet the Academic Residency requirement. More detailed info can be found [here](#).

### Core Coursework: BENG 280A/B OR ECE 207A/B (8 Units)

<b>BENG 280A OR ECE 207A</b>	Principles of Bioengineering OR Principles of Medical Imaging
<b>BENG 280B OR ECE 207B</b>	Comparative Biomedical Imaging OR <b>*MISSING COURSE NAME (NOT ON COURSE CATALOG)</b>

Quarter/Core Courses	
	BENG 280A OR ECE 207A
	BENG 280B OR ECE 207B
<b>Total: 8 Units</b>	

### 16 Additional Units Selected from the following:

<b>BENG 280C</b>	Imaging Cardiovascular Disease
<b>BENG 235</b>	Molecular Imaging and Quantitation in Living Cells
<b>BENG 278</b>	Magnetic Resonance Imaging
<b>ECE 247A OR BENG 247A OR NANO 247A</b>	Advanced Biophotonics
<b>ECE 250</b>	Random Processes
<b>ECE 253</b>	Fundamentals of Digital Image Processing
<b>ECE 269</b>	Linear Algebra and Application
<b>ECE 273</b>	Convex Optimization and Applications
<b>ECE 275A</b>	Parameter Estimation I

Quarter/Add. Units	
<b>Total: 16 Units</b>	

### Writing/Presentation (4 Units)

<b>ECE 189</b>	Technical Public Speaking (2 units)
<b>ENG 100B</b>	Engineering Leadership (2 units)

Quarter/ Writing/Presentation	
	ENG 189
	ENG 100B
<b>Total: 4 Units</b>	
Quarter/ Human Physiology	
	BILD 26
<b>Total: 4 Units</b>	

### Human Physiology, Pathology, or Anatomy (4 Units)

<b>BILD 26</b>	Human Physiology
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### Technical Electives (16 Units)

- ❖ Up to 12 units of undergraduate ECE coursework (ECE 111+ only\*) OR up to two 4-unit course of undergraduate ECE coursework (ECE 111+ only\*) and one 4-unit course of CSE undergraduate coursework (CSE100+ only\*\*) may be counted
- ❖ With the exception of research units, all courses counted towards the degree must be taken for a letter grade.
- ❖ Any 4 units, 200+ courses from ECE, CSE, MAE, BENG, NANO, taken for a letter grade may be counted. Exceptions to this list require departmental approval.
- ❖ \*Exclude ECE 195, 197, 198, 199, 210 or 298
- ❖ MS students (Plan II) are allowed no more than 4 units of any Jacobs School of Engineering Research units as technical electives. PhD and MS students (Plan I) are allowed no more than 8 units of research as technical electives.
  - ECE 299, CSE 298/299, MAE 299, BENG 299, NANO 299, SE 299

Quarter/Tech.Electives	
<b>Total: 16 Units</b>	

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**Curriculum/Faculty Advisor:** Advises M.S. students regarding course selection; Considers any exception requests requiring faculty approval (such as course substitutions); Sign forms; Technical engineering related questions & job advice- **PLEASE CONTACT [YOUR STAFF ADVISOR](#) FOR ALL OTHER ISSUES.**