



**University of Hawai'i at Mānoa**  
**College of Engineering Program Sheet 2017-2018**  
**Bachelor of Science (BS) in Electrical Engineering**  
**Admissions: Freshmen = Open / Transfer = Min. Criteria    Process: Declaration**  
**Min. Total Credits: 123 (123 in core & major + 0 in electives)**

UHM General Education Core Requirements
<b>Foundations</b>
<input type="checkbox"/> FW ENG 100, 100A, 190, ESL 100, or AMST 111
<input type="checkbox"/> FS MATH 241, 242
<input type="checkbox"/> FG (A / B / C)
<input type="checkbox"/> FG (A / B / C)
<b>Diversification</b>
<input type="checkbox"/> DA COMG 251
<input type="checkbox"/> DH / DL
<input type="checkbox"/> DB <i>not required for EE students.</i>
<input type="checkbox"/> DP CHEM 161, 162, PHYS 170, 272
<input type="checkbox"/> DY CHEM 161L, 162L, PHYS 170L, 272L
<input type="checkbox"/> DS ECON 120, 130, 131
<input type="checkbox"/> DS
<i>* See degree, college and major requirements for courses that can also fulfill these.</i>
UHM Graduation Requirements
<b>Focus</b>
<input type="checkbox"/> H
<input type="checkbox"/> E (300+)
<input type="checkbox"/> O (300+)
<input type="checkbox"/> W
<input type="checkbox"/> W
<input type="checkbox"/> W
<input type="checkbox"/> W (300+)
<input type="checkbox"/> W (300+)
<b>Hawaiian / Second Language</b>
<ul style="list-style-type: none"> <li>The Hawaiian or Second Language requirement is <b>not</b> required for students admitted to the College of Engineering.</li> </ul>
<b>Credit Minimums</b>
<ul style="list-style-type: none"> <li>120 total applicable</li> <li>30 in residence at UHM</li> <li>45 upper division (300+ level) credits</li> </ul>
<b>Grade Point Average</b>
<ul style="list-style-type: none"> <li>2.0 cumulative or higher (<i>Note: Other GPAs may be required</i>)</li> <li>Good academic standing</li> </ul>

Degree Requirements
<b>Bachelor of Science Requirements</b>
<ul style="list-style-type: none"> <li>Calculus I &amp; II</li> <li>General Chemistry I with lab &amp; II</li> <li>General Physics I &amp; II with labs</li> </ul>
<b>College Requirements</b>
<b>Admission Requirements for Transfer Students</b>
<ul style="list-style-type: none"> <li>3.0 cumulative GPA</li> <li>Completion of the following courses: <ul style="list-style-type: none"> <li>ENG 100*<sup>FW</sup></li> <li>MATH 241*<sup>FS</sup></li> <li>MATH 242</li> <li>CHEM 161*<sup>DP</sup> / 161L*<sup>DY</sup></li> <li>CHEM 162*<sup>DP</sup></li> <li>PHYS 170*<sup>DP</sup> / 170L*<sup>DY</sup></li> </ul> </li> </ul>
<b>Math Requirements</b>
<input type="checkbox"/> MATH 241* <sup>FS</sup>
<input type="checkbox"/> MATH 242
<input type="checkbox"/> MATH 243
<input type="checkbox"/> MATH 244
<b>Natural Sciences Requirements</b>
<input type="checkbox"/> CHEM 161* <sup>DP</sup> / <input type="checkbox"/> 161L* <sup>DY</sup>
<input type="checkbox"/> CHEM 162* <sup>DP</sup>
<input type="checkbox"/> PHYS 170* <sup>DP</sup> / <input type="checkbox"/> 170L* <sup>DY</sup>
<input type="checkbox"/> PHYS 272* <sup>DP</sup> / <input type="checkbox"/> 272L* <sup>DY</sup>
<b>Grade Point Average</b>
<ul style="list-style-type: none"> <li>2.0 GPA for all upper division (300+) mathematics, sciences, and engineering courses.</li> </ul>

*This program sheet was prepared to provide information and does not constitute a contract. See back for major requirements.  
 Meet regularly with your major advisor. Advising is mandatory every semester for Engineering students.*

## Major Requirements for BS in Electrical Engineering

Admission: Open

Application: Required for students who do not apply straight into the program.

Min. major credits: 71

Min. exit GPA: 2.0 overall and 2.0 in upper division technical coursework.

Enrollment in EE courses requires a C (not C-) grade or better, in all prerequisites.

### Requirements

#### Electrical Engineering Core Courses (38 credits)

EE 110 or EE 160

EE 211

EE 213

EE 260

EE 315

EE 323 /  323L

EE 324

EE 342

EE 371

EE 495

PHYS 274

MATH 307

#### Electrical Engineering Projects (6 credits)

EE 296 (or ENGR 296) (Sophomore standing)

EE 396 (or ENGR 396) (Junior standing)

EE 496

#### Electrical Engineering Major Track (17 credits; choose one track below)

17 credits in one major track, which includes all courses in Group I and remaining courses from Group II.

	Group I (11 credits)	Group II (6 credits)
<input type="checkbox"/> <b>Electro-Physics Track</b>	<input type="checkbox"/> EE 326 / <input type="checkbox"/> 326L <input type="checkbox"/> EE 327 <input type="checkbox"/> EE 372 / <input type="checkbox"/> 372L	EE 422/422L, 423, 425, 427 EE 328/328L, 426 EE 470, 471, 473, 474, 475, 477 EE 435, 438 EE 480
<input type="checkbox"/> <b>Systems Track</b>	<input type="checkbox"/> EE 343 / <input type="checkbox"/> 343L <input type="checkbox"/> EE 351 / <input type="checkbox"/> 351L <input type="checkbox"/> EE 415	EE 344, 442, 446, 449 EE 452, 453 EE 416, 417, 445 EE 435

#### Electrical Engineering Technical Electives (7 credits)

7 additional credits from track lists, including 3 credits outside the major track and a 1 credit laboratory:

Technical Elective

Technical Elective

Technical Elective Lab

*List of Computer Engineering Technical Electives: EE 205, 361/361L, 362, 366, 367/367L, 406, 461, 467, 468, 469*

*EE 491 can also be used as a Technical Elective, but the track designation is determined on a case-by-case basis.*

#### **Engineering Breadth (3 credits; one of the following options)**

- CEE 270, ME 311, or a 300+ level course from CEE, ME, OE, or BE.
- 300+ physical, biological, or computer science courses (with department's undergraduate curriculum committee approval).

### Notes

College of Engineering: Holmes 250; (808) 956-8404; info@eng.hawaii.edu; www.eng.hawaii.edu

Director of Academic Affairs: Tep Dobry, PhD; Holmes 240A; (808) 956-8404; tep@hawaii.edu