



Sample 4-year Guided Pathway for
Bachelor of Science in Electrical Engineering

Last Revised 2022-2023

*This is **ONLY** a sample degree pathway. Please meet with an academic or faculty advisor prior to registration to formulate your own plan, and for additional information refer to the [academic catalog](#).*

Year	Fall Semester	Spring Semester
1	ENGE 1000 Intro to Engineering (GE I&T) 3	MATH 2215 Calculus II 3
	MATH 2214 Calculus I (GE QA&SR)* 3	GE WC&IL 2 3
	GE WC&IL I* 3	GE H&P 3
	CHEM 2050 General Chemistry I (GE NW) 3	CHEM 2051 General Chemistry I Lab 1
	CSCI 1911 Foundations of Programming** 3	CSCI 2911 Computer Science I 3
		CSCI 2916 Computer Science I Lab 1
	ENGR 1500 Design Project Experience I 1	
	Total Credits 15	Total Credits 15

Year	Fall Semester	Spring Semester
2	ENGE 2000 Linear Circuits & Systems 3	ENGE 2004 Digital Hardware 3
	ENGE 2001 Linear Circuits & Systems Lab 1	ENGE 2005 Digital Hardware Lab 1
	MATH 2216 Calculus III 3	ENGE 2006 Electronics 3
	PHYS 2050 General Physics I 3	ENGE 2007 Electronics Lab 1
	PHYS 2051 General Physics I Lab 1	MATH 3307 Differential Equations 3
	CSCI 2912 Computer Science II 3	Tech Elective*** 3
	GE SW 3	Tech Elective Lab*** 1
		ENGR 2500 Design Project Experience II 1
	Total Credits 17	Total Credits 16

Year	Fall Semester	Spring Semester
3	ENGR 3500 Design Project I 3	ENGR 3501 Design Project II 3
	ENGE 3000 Signals and Systems 3	ENGE 3006 Electromagnetics 3
	ENGE 3000 Signals and Systems Lab 1	ENGE 3007 Control Systems 3
	MATH 3305 Linear Algebra 3	ENGE 3008 Control Systems Lab 1
	GE AE 3	GE CA 3
	GE CT&E 3	Unrestricted Elective 3
	Total Credits 16	Total Credits 16

Year	Fall Semester	Spring Semester
4	ENGX 4XXX Major Elective or ENGR 4500+ 3	ENGX 4XXX Major Elective or ENGR 4500+ 3
	ENGX 4XXX Major Elective or equivalent ^o 3	ENGX 4XXX Major Elective or equivalent ^o 3
	GE GC&D 3	MATH 3470 Applied Statistics 3
	Unrestricted Elective 3	GE T&M 3
	Unrestricted Elective 3	Unrestricted Elective 3
	Total Credits 15	Total Credits 15

This schedule is only a suggestion; make sure you understand the necessary prerequisites for each course and consult with your Academic Advisor. Course availability subject to change; actual degree audits may change depending on course availability in a given semester.

**If you were placed into foundational Writing and Mathematics courses based on your placement and/or test scores, please consult with your academic advisor to develop a degree plan.*

***If you seek to place out of CSCI 1911 with direct entry into CSCI 2911, contact Dr. Crawford (scrawford@hpu.edu).*

****Must be one lecture & lab from the following list: BIOL 2050 + 2051, CHEM 2052 + 2053, ENVS 2000 + 2001 or PHYS 2052 + 2053*

+ Engineering Research (ENGR 4500) can be either an extension of the Design Project, or relevant industry work such as an internship or a supervised research project under a CNCS faculty.

o Discuss with your faculty advisor.

Baccalaureate Requirements

- Total Degree Credits Required = 120 credits of which a minimum of 38 are Upper-Division Credits (level 3000 and above)
- Completion of Major Requirements (*as indicated above*)
- Completion of General Education Requirements (*as indicated above*)
- Cumulative GPA of at least 2.0; Major GPA of at least 2.0
- Residency Requirements: 12 credits of major course work and 24 of the last 30 credits immediately preceding graduation (*Service member's Opportunity College students please see your academic advisor*)

For more information on our General Education curriculum please refer to our Academic Catalog or visit: <https://www.hpu.edu/gen-ed/index.html>

Program-Specific Requirements

- The total Credit count for the Program complies with University requirements at HPU. The total for this Program is: **120**
- The General Education Credit Point count for the Program complies with University requirements at HPU. GE Total credit for this program is: **27** (9 x 3), excluding (3 x 3); **this number excludes 9 counted as core**
- The Credit count for Basic Math & Science for the Program complies with ABET Accreditation requirements of 1 out of 4 years (equivalent to 30 credits). The total is: **48**
- The Credit count for Engineering (including Computer Science) for the Program complies with ABET Accreditation requirements of 1.5 out of 4 years (equivalent to 45 credits). The total is: **45**
- There are no unrestricted electives for this Program in order to meet ABET accreditation requirements and enable required Core and Elective course offerings specific to Biomedical Engineering.
- The above credit classification is done in order to meet ABET accreditation requirements and enable required Core and Elective course offerings specific to Biomedical Engineering.

To qualify for a Concentration in Engineering Sustainability:

- Students must complete 21 credits of Restricted and Major electives that are categorized as courses in Engineering Sustainability from the Approved List/s (refer Catalog), including Engineering Research in Engineering Sustainability.
- Students must undertake Engineering Design Project I and II, courses ENGR3500 Engineering Design Project I and ENGR3501 Engineering Design Project II, with project topics including design aspects within Engineering Sustainability.
- Total Credit Point Count for all subjects undertaken with focus in Sustainability is: 21.
- Students must achieve a minimum GPA of 2.0 throughout the degree.

To qualify for a Concentration in Computer Engineering:

- Students must complete 21 credits of Restricted and Major electives that are categorized as courses in Computer Engineering from the Approved List/s (refer Catalog), including Engineering Research in Computer Engineering.
- Students must undertake Engineering Design Project I and II, courses ENGR3500 Engineering Design Project I and ENGR3501 Engineering Design Project II, with project topics including design aspects within Computer Engineering.
- Total Credit Point Count for all subjects undertaken with focus in Computer Engineering is: 21.
- Students must achieve a minimum GPA of 2.0 throughout the degree.