

## 2.10 CS Course Plan for Class of 2026 and Beyond

First Year					
Fall Semester (Credit Hours:18)			Spring Semester (Credit Hours:18)		
MATH 10550	Calculus I	4	MATH 10560	Calculus II	4
CHEM 10171	Intro to Chemical Principles	4		Technical Elective	3
EG 10117	Engineering Design	3	EG 10118	Engineering Computing	3
	Core Curriculum Course	3	PHYS 10310	Engineering Physics I	4
USEM or WR 13100	University Seminar or Writing & Rhetoric (or WRIT)	3	USEM or WR 13100	University Seminar or Writing & Rhetoric (or WRIT)	3
FYS 10101	Moreau First Year Experience	1	FYS 10102	Moreau First Year Experience	1
Sophomore Year					
Fall Semester (Credit Hours:17.5)			Spring Semester (Credit Hours:17.5)		
MATH 20550	Calculus III	3.5	MATH 20580	Intro to Linear Algebra and Differential Equations	3.5
PHYS 10320	Engineering Physics II	4	CSE 20221	Logic Design	4
CSE 20110	Discrete Mathematics	3	CSE 20289	Systems Programming	3
CSE 20311	Fundamentals of Computing	4	CSE 20312	Data Structures	4
	Core Curriculum Course	3		Core Curriculum Course	3
Junior Year					
Fall Semester (Credit Hours:16)			Spring Semester (Credit Hours:15)		
	CSE Elective	3	CSE 30151	Theory of Computing	3
	CSE Elective	3	CSE 30332	Programming Paradigms	3
	Technical Elective	3	CSE 30341	Operating Systems	3
CSE 30321	Computer Architecture	4	ACMS 30440	Probability and Statistics	3
	Core Curriculum Course	3		Core Curriculum Course	3
Senior Year					
Fall Semester (Credit Hours:15)			Spring Semester (Credit Hours:12)		
	CSE Elective	3		CSE Elective	3
	CSE Elective	3		CSE Elective	3
	Technical Elective	3	CSE 40175	Ethical and Social Issues	3
CSE 40113	Algorithms	3		Core Curriculum Course	3
	Free Elective	3		Total credit hours	129

## CS Program Requirements for Class of 2026 and Beyond

To earn the BS CS, students must complete the following requirements

1. *Completion of University Core Curriculum requirements (26 credits)*. Note the Liberal Arts 1, 2 and 3 requirements will be covered by courses required by the College of Engineering and the Department of Computer Science Engineering.

2. *Completion of the College of Engineering requirements (22 credits)*. Students must complete the following courses:

- EG 10117 – Engineering Design (3 credits)
- EG 10118 – Engineering Programming (3 credits)
- MATH 10550 – Calculus I (4 credits)
- MATH 10560 – Calculus II (4 credits)
- CHEM 10171/11171 – Introduction to Chemical Principles (4 credits)
- PHYS 10310 – General Physics I (4 credits)

Additional College of Engineering degree requirements are covered by courses required by the Department of Computer Science and Engineering.

3. *Completion of the Computer Science Engineering degree requirements.*

a. *CSE mathematics and science requirement (14 credits)*. In addition to the College of Engineering mathematics and science requirements, students must also complete the following courses:

- MATH 20550 – Calculus III (3.5 credits)
- MATH 20580 – Introduction to Linear Algebra and Differential Equations (3.5 credits)
- ACMS 30440 – Probability and Statistics (3 credits)
- PHYS 10320 – General Physics II (4 credits)

b. *CPEG Core requirement (37 credits)*. Students must complete the following courses:

- CSE 20321 – Fundamentals of Computing (4 credits)
- CSE 20110 – Discrete Math (3 credits)
- CSE 20312 – Data Structures (4 credits)
- CSE 20221 – Logic Design (4 credits)
- CSE 20289 – Systems Programming (3 credits)
- CSE 30321 – Computer Architecture (4 credits)
- CSE 30141 – Theory of Computing (3 credits)
- CSE 30332 – Programming Paradigms (3 credits)
- CSE 30341 – Operating Systems (3 credits)
- CSE 40113 – Algorithms (3 credits)
- CSE 40175 – Ethics and Social Issues (3 credits)

c. *CSE Electives (18 credits)*. Students must complete 18 additional credits of CSE elective course. Students have a choice from 30+ courses offered by the departments of Computer Science Engineering and Electrical Engineering. (Up to

9 of the aforementioned electives may be fulfilled by courses offered by the Department of Electrical Engineering)

- d. *Technical Electives (9 credits)*. Students must complete 9 additional credits of technical elective courses. Students can choose from numerous courses offered by the College of Engineering and the College of Science.
- e. *Free Electives (3 credits)*. Students must 3 additional credits of elective courses. Students can choose from courses offered by University of Notre Dame.

## 2.11 CPEG Course Plan for Class of 2026 and Beyond

First Year					
Fall Semester (Credit Hours: 18)			Spring Semester (Credit Hours: 18)		
MATH 10550	Calculus I	4	MATH 10560	Calculus II	4
CHEM 10171	Intro to Chemical Principles	4		Technical Elective	3
EG 10117	Engineering Design	3	EG 10118	Engineering Computing	3
	Core Curriculum Course	3	PHYS 10310	Engineering Physics I	4
USEM or WR 13100	University Seminar or Writing & Rhetoric (or WRIT)	3	USEM or WR 13100	University Seminar or Writing & Rhetoric (or WRIT)	3
FYS 10101	Moreau First Year Experience	1	FYS 10102	Moreau First Year Experience	1
Sophomore Year					
Fall Semester (Credit Hours: 17.5)			Spring Semester (Credit Hours: 17.5)		
MATH 20550	Calculus III	3.5	MATH 20580	Intro to Linear Algebra and Differential Equations	3.5
PHYS 10320	Engineering Physics II	4	CSE 20221	Logic Design	4
CSE 20110	Discrete Mathematics	3	EE 20223 (spring only)	Intro to Electric Circuits	3
CSE 20311	Fundamentals of Computing	4	CSE 20312	Data Structures	4
	Core Curriculum Course	3		Core Curriculum Course	3
Junior Year					
Fall Semester (Credit Hours: 16)			Spring Semester (Credit Hours: 15)		
CSE 20289	Systems Programming	3	CSE 30341	Operating Systems	3
	Free Elective	3	ACMS 30440	Probability and Statistics	3
CSE xxxxx (fall only)	Digital Integrated Circuits	3		CSE Elective	3
CSE 30321	Computer Architecture	4	CSE xxxxx (spring only)	Signal Processing Fundamentals	3
	Core Curriculum Course	3		Core Curriculum Course	3
Senior Year					
Fall Semester (Credit Hours: 13)			Spring Semester (Credit Hours: 12)		
CSE 40522 (fall only)	CPEG Capstone Design	4	CSE 40175	Ethical and Social Issues	3
	CSE Elective	3		CSE Elective	3
	CSE Elective	3		CSE Elective	3
	CSE Elective	3		Core Curriculum Course	3
				Total credit hours	127

## CPEG Program Requirements for Class of 2026 and Beyond

To earn the BS CPEG, students must complete the following requirements

1. *Completion of University Core Curriculum requirements (26 credits)*. Note the Liberal Arts 1, 2 and 3 requirements will be covered by courses required by the College of Engineering and the Department of Computer Science Engineering.

2. *Completion of the College of Engineering requirements (22 credits)*. Students must complete the following courses:

- EG 10117 – Engineering Design (3 credits)
- EG 10118 – Engineering Programming (3 credits)
- MATH 10550 – Calculus I (4 credits)
- MATH 10560 – Calculus II (4 credits)
- CHEM 10171/11171 – Introduction to Chemical Principles (4 credits)
- PHYS 10310 – General Physics I (4 credits)

Additional College of Engineering degree requirements are covered by courses required by the Department of Computer Science and Engineering.

3. *Completion of the Computer Science Engineering degree requirements.*

a. *CSE mathematics and science requirement (14 credits)*. In addition to the College of Engineering mathematics and science requirements, students must also complete the following courses:

- MATH 20550 – Calculus III (3.5 credits)
- MATH 20580 – Introduction to Linear Algebra and Differential Equations (3.5 credits)
- ACMS 30440 – Probability and Statistics (3 credits)
- PHYS 10320 – General Physics II (4 credits)

b. *CPEG Core requirement (41 credits)*. Students must complete the following courses:

- CSE 20321 – Fundamentals of Computing (4 credits)
- CSE 20110 – Discrete Math (3 credits)
- CSE 20312 – Data Structures (4 credits)
- CSE 20221 – Logic Design (4 credits)
- EE 20223 – Intro to Electric Circuits (new course) (3 credits)
- CSE xxxxx – Digital Integrated Circuits (new course) (3 credits)
- CSE 30321 – Computer Architecture (4 credits)
- CSE 20289 – Systems Programming (3 credits)
- CSE 30341 – Operating Systems (3 credits)
- CSE xxxxx – Signal Processing Fundamentals (3 credits)
- CSE 40522 – CPEG Capstone Design (4 credits)
- CSE 40175 – Ethics and Social Issues (3 credits)

c. *CSE Electives (18 credits)*. Students must complete 18 additional credits of CSE elective course. Students have a choice from 30+ courses offered by the departments of Computer Science Engineering and Electrical Engineering. (Up to

9 of the aforementioned electives may be fulfilled by courses offered by the Department of Electrical Engineering)

- d. *Technical Electives (3 credits)*. Students must complete 3 additional credits of technical elective courses. Students can choose from numerous courses offered by the College of Engineering and the College of Science.
- e. *Free Electives (3 credits)*. Students must 3 additional credits of elective courses. Students can choose from courses offered by University of Notre Dame.