PURDUE UNIVERSITY | Elmore Family School of Electrical and Computer Engineering

Engineering Faculty Document No. EFD 09-24
February 29, 2024

Memorandum

To: The College of Engineering Faculty

From: The Elmore Family School of Electrical and Computer Engineering

Re: 2024-2025 BSCmpE Degree Requirements

The faculty of the Elmore Family School of Electrical and Computer Engineering has approved the following degree requirements for the BS in Computer Engineering for the 2024-2025 catalog. This action is now submitted to the Engineering Faculty with a recommendation for approval.

Description: 2024-2025 BSCmpE Degree Requirements

Changes: Change to the degree requirements include additional CMPE Selectives, a new Senior Design Option, additional General Education Elective courses, and replacing the Complementary Electives with a no count list with Complementary Selectives with a list of courses that do count. Lists of these changes are attached.

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Purdue University

2023-2024 University Catalog

Computer Engineering, BSCMPE

About the Program

The Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET.

Electrical and Computer engineering encompasses all areas of research, development, design, and operation of electrical and electronic systems and their components, including software. Emphasis in such varied areas as bioengineering, circuit theory, communication sciences, computers and automata, control systems, electromagnetic fields, energy sources and systems, and materials and electronic devices is available. Two degree programs are offered by the School: Bachelor of Science in Electrical Engineering (BSEE) and Bachelor of Science in Computer Engineering (BSCmpE).

Engineers in both fields must have a strong background in mathematics and physics, a broad base in the humanities, and a command of the English language in order to provide the scope of knowledge essential for optimum professional growth. The curriculum offered by the School of Electrical and Computer Engineering meets these objectives.

Graduates from the School of Electrical and Computer Engineering are sought after by all major industries. Electrical engineers hold many unusual and challenging positions in the aerospace, chemical, nuclear, automotive, medical, metallurgical, textile, railway, petroleum, and other basically non-electrical industries, as well as in computers, electronics, communications, power, and other electrical industries. Their professional roles span industrial activity, research, development, design, production, marketing, operation, field testing, and maintenance of many types of equipment for government, industry, farm, and home.

Two degree programs are offered by the school:

Electrical Engineering encompasses the development, design, research, and operation of electrical and electronic systems and components. Disciplines include VLSI and circuit design, communication and signal processing, computer engineering, automatic control, fields and optics, energy sources and systems, and microelectronics and nanotechnology.

Computer Engineering is a specialization within electrical and computer engineering offering an in-depth education in both hardware and software aspects of modern computer systems.

Electrical and Computer Engineering provides students with a versatile education that will prove valuable looking toward a professional future. Along with problem-solving and design skills, students develop a strong foundation in math, science, and core electrical/computer engineering fundamentals. This skillset prepares them for research and development positions in industry, management, sales, teaching, medical school, and law school.

At Birck Nanotechnology Center, engineers and scientists conduct research in emerging fields where new materials and tiny structures are built atom by atom or molecule by molecule.

Electrical and Computer Engineering website

Electrical and Computer Engineering Major Change (CODO) Requirements

Degree Requirements

125 Credits Required

Computer Engineering Required Major Courses (53 credits)

An overall 2.00 cumulative GPA or better for Required Major courses. (Some courses have minimum grade requirements for prerequisites.)

Required Core Courses (30 credits)

- ECE 20001 - Electrical Engineering Fundamentals I (minimum grade of C)
- ECE 20007 - Electrical Engineering Fundamentals I Lab
- ECE 20002 - Electrical Engineering Fundamentals II (minimum grade of C)
- ECE 26400 - Advanced C Programming (minimum grade of C)
- ECE 20875 - Python For Data Science
- ECE 27000 - Introduction To Digital System Design (minimum grade of C)
- ECE 30100 - Signals And Systems
- ECE 30200 - Probabilistic Methods In Electrical And Computer Engineering
- ECE 36200 - Microprocessor Systems And Interfacing
- ECE 36800 - Data Structures

Required Seminars (3 credits)

- ECE 29401 - Electrical And Computer Engineering Sophomore Seminar
- ECE 39401 - Professional Communications And Diversity
- ECE 49401 - Professional Communication Capstone

Senior Design Requirement - Choose One Option (4 credits)

The CmpE Core Requirements listed above must be completed before taking Senior Design.

Option 1:

- ECE 47700 - Digital Systems Senior Project

Option 2:

- ECE 49022 - Electrical Engineering Senior Design Projects

Option ~~3~~: 4

Must be taken in each of 2 consecutive semesters.

- EPCS 41200 - Senior Design Participation In EPICS

Option ~~4~~: 5

Must be taken in 2 consecutive semesters.

- VIP 47921 - Senior Design Participation In Vertically Integrated Projects (VIP) I
- VIP 47922 - Senior Design Participation In Vertically Integrated Projects (VIP) II

Add: Option 3: ECE 49595 Open Source Software 4 cr

Computer Engineering Selectives (16 credits)

Select from the following list so that total credits for Required Major Courses is at least 53.

- ECE 30834 - Fundamentals Of Computer Graphics
- ECE 33700 - ASIC Design Laboratory

* updated list attached

- ECE 40400 - Introduction To Computer Security
- ECE 43700 - Computer Design And Prototyping
- ECE 46100 - Software Engineering
- ECE 46900 - Operating Systems Engineering

- ECE 46300 - Introduction To Computer Communication Networks or
- ECE 50863 - Computer Network Systems

- ECE 46800 - Introduction To Compilers And Translation Engineering or
- ECE 57300 - Compilers And Translator Writing Systems

- ECE 40862 - Software For Embedded Systems or
- ECE 56800 - Embedded Systems

- ECE 47300 - Introduction To Artificial Intelligence or
- ECE 57000 - Artificial Intelligence

- Computer Engineering "Special Content" courses - Maximum of 6 credits (See Computer Engineering "Special Content" Courses in Additional Requirements)

Optional Concentrations

- Artificial Intelligence and Machine Learning Concentration for Computer Engineering
- Computer Systems Concentration in Computer Engineering
- Microelectronics and Semiconductor Concentration for Computer Engineering
- Software Engineering Concentration for Computer Engineering

Other Department/Program Course Requirements (72 credits)

If pursuing Bachelor of Science in Computer Engineering, CS 15900 - Prog Appl for Engineers is required to graduate, but not required to complete the First Year Engineering program.

First-Year Engineering Requirements (29-39 credits)

Click here for First-Year Engineering requirements.

- Requirement #1 - Intro to Engineering I (2-4 credits)
- Requirement #2 - Intro to Engineering II (2-4 credits)
- Requirement #3 - Calculus I (4-5 credits) *(satisfies Quantitative Reasoning for core)*
- Requirement #4 - Calculus II (4-5 credits) *(satisfies Quantitative Reasoning for core)*
- Requirement #5 - Chemistry I (4-6 credits) *(satisfies Science #1 for core)*
- Requirement #6 - Physics (4 credits) *(satisfies Science #2 for core)*
- Requirement #7 - First-Year Engineering Selective (3-4 credits)
- Requirement #8 - Written and Oral Communication (6-7 credits) *(could satisfy Written Communication, Information Literacy or Oral Communication for core)*

General Engineering Requirement (3-6 credits)

C Programming (0-3 credits)

Required only if CS 15900 not taken as the FYE Science Selective.

- CS 15900 - C Programming (minimum grade of C-)

Engineering Breadth Selective - Choose One (3 credits)

- AAE 20300 - Aeromechanics I
- ABE 20100 - Thermodynamics In Biological Systems I
- BME 20100 - Biomolecules: Structure, Function, And Engineering Applications
- CE 29700 - Basic Mechanics I (Statics)
- CE 35000 - Introduction To Environmental And Ecological Engineering
- CE 35500 - Engineering Environmental Sustainability
- CHE 20500 - Chemical Engineering Calculations
- EEE 35000 - Introduction To Environmental And Ecological Engineering
- EEE 35500 - Engineering Environmental Sustainability
- IE 33500 - Operations Research - Optimization
- IE 33600 - Operations Research - Stochastic Models
- ME 20000 - Thermodynamics I
- ME 27000 - Basic Mechanics I
- ME 41300 - Noise Control
- MSE 23000 - Structure And Properties Of Materials
- NUCL 20000 - Introduction to Nuclear Engineering

Mathematics Requirement - Choose One Option (13-14 credits)

Calculus I and II must be completed as part of the First Year Engineering Requirements.

Option 1 (13 credits)

- MA 26100 - Multivariate Calculus (minimum grade of C-)
- MA 26600 - Ordinary Differential Equations
- MA 26500 - Linear Algebra
- ECE 36900 - Discrete Mathematics For Computer Engineering

Option 2 (14 credits)

- MA 26100 - Multivariate Calculus (minimum grade of C-)
- MA 26200 - Linear Algebra And Differential Equations
- ECE 36900 - Discrete Mathematics For Computer Engineering

Advanced Math Selective - Choose One (3 credits)

- MA 30300 - Differential Equations And Partial Differential Equations For Engineering And The Sciences
- MA 35100 - Elementary Linear Algebra
- MA 38500 - Introduction To Logic
- MA 42500 - Elements Of Complex Analysis
- MA 51000 - Vector Calculus
- CS 31400 - Numerical Methods

Science Requirement (4-8 credits)

Physics I and General Chemistry are part of the First Year Engineering Requirements. If an FYE Science Selective other than CS 15900 is selected, it will satisfy the ECE Science Selective requirement below.

- PHYS 27200 - Electric And Magnetic Interactions ♦

ECE Science Selective - Choose One

- BIOL 11000 - Fundamentals Of Biology I
- BIOL 11100 - Fundamentals Of Biology II

- BIOL 12100 - Biology I: Diversity, Ecology, And Behavior and
- BIOL 13500 - First Year Biology Laboratory

- BIOL 13100 - Biology II: Development, Structure, And Function Of Organisms
- CHM 11600 - General Chemistry
- PHYS 31000 - Intermediate Mechanics
- PHYS 32200 - Intermediate Optics
- ~~PHYS 34200 - Modern Physics~~ PHYS 34202 Intro to Quantum Science
- PHYS 34400 - Introduction To Quantum Science

ECE General Education Requirement (17-18 credits)

- General Education I (Human Cultures: Humanities) - Credit Hours: 3.00 (satisfies Human Cultures: Humanities for core)
- General Education II (satisfies Human Cultures: Behavioral/Social Science for core) - Credit Hours: 3.00
- General Education III (satisfies Science, Technology & Society for core) - Credit Hours: 3.00
- General Education IV - Credit Hours: 3.00
- General Education V - Credit Hours: 3.00
- General Education VI - Credit Hours: 3.00

C- or better required in all General Education Requirement Courses

- 6 of 24 credits must be Upper level courses (*Non-Introductory: At least 6 credits must be 30000-level or above (or from courses with a required pre-requisite in the same department.*)
- 12 of 24 must be taken from College of Liberal Arts, the Krannert School of Management, and/or the Honors College-provided such courses are not focused primarily on engineering, technology, the natural sciences, or mathematics.

24 credits total of General Education Courses Required

6-7 credits are taken in First-Year Engineering

- General Education - FYE Requirement #8 (Written Communication) - Credit Hours: 3.00-4 credits (satisfies Written Communication for core)

- General Education - FYE Requirement #8 (Oral Communication) Credit Hours: 3.00 (satisfies Oral Communication for core)

Complementary Selections

~~Electives (0-2 credits)~~

complementary

- Elective - Credit Hours: 0.00-2.00

- Choose additional coursework to bring total credits to the minimum 125 required for the BSCMPE degree. Students should carefully select these courses to complement their personal interests and their academic record.
- ~~All courses, except those specifically identified on the Electrical and Computer Engineering No Count List.~~

Supplemental Lists

- Electrical and Computer Engineering General Education
- Computer Engineering "Special Content" Courses

- Electrical and Computer Engineering No Count List

GPA Requirements

- An overall GPA of 2.0 or higher in the Required Major Courses is required.

Pass/No Pass Policy

- The pass/no pass (P/NP) grade option, if available, may be used for courses taken to satisfy the ECE General Education and Complementary Elective Requirements. The P/NP grade option cannot be used for courses applied towards the Required Major Courses, General Engineering Requirement, Mathematics Requirement, and the Science Requirement (unless P/NP is the only allowed grade option for that course).

Transfer Credit Policy

- All 30000-level and above courses applied towards the Required Major Courses must be completed at the Purdue West Lafayette campus.

University Requirements

University Core Requirements

For a complete listing of University Core Course Selectives, visit the Provost's Website.

- Human Cultures: Behavioral/Social Science (BSS)
- Human Cultures: Humanities (HUM)
- Information Literacy (IL)
- Oral Communication (OC)
- Quantitative Reasoning (QR)
- Science #1 (SCI)
- Science #2 (SCI)
- Science, Technology, and Society (STS)
- Written Communication (WC)

Civics Literacy Proficiency Requirement

The Civics Literacy Proficiency activities are designed to develop civic knowledge of Purdue students in an effort to graduate a more informed citizenry. For more information visit the Civics Literacy Proficiency website.

Students will complete the Proficiency by passing a test of civic knowledge, and completing one of three paths:

- Attending six approved civics-related events and completing an assessment for each; or
- Completing 12 podcasts created by the Purdue Center for C-SPAN Scholarship and Engagement that use C-SPAN material and completing an assessment for each; or
- Earning a passing grade for one of **these approved courses** (or transferring in approved AP or departmental credit in lieu of taking a course).

Upper Level Requirement

- Resident study at Purdue University for at least two semesters and the enrollment in and completion of at least 32 semester hours of coursework required and approved for the completion of the degree. These courses are expected

to be at least junior-level (30000+) courses.

- Students should be able to fulfill *most, if not all,* of these credits within their major requirements; there should be a clear pathway for students to complete any credits not completed within their major.

Sample First Year Engineering Plan of Study

Fall 1st Year

- CHM 11500 - General Chemistry *(FYE Requirement #8)* - Credit Hours: 4.00 or (CHM 11100 and CHM 11200)

- ENGR 13100 - Transforming Ideas To Innovation I ♦ *(FYE Requirement #1)* - Credit Hours: 2.00

OR ENGR 16100

- MA 16100 - Plane Analytic Geometry And Calculus I ♦ *(FYE Requirement #3)* - Credit Hours: 5.00 or
- MA 16500 - Analytic Geometry And Calculus I ♦ *(FYE Requirement #3)* - Credit Hours: 4.00

- Written Communication Selective *(FYE Requirement #8)* - Credit Hours: 3.00-4.00 (satisfies Written Communication for core) or
- Oral Communication Selective *(FYE Requirement #8)* - Credit Hours: 3.00 (satisfies Oral Communication for core)

16
~~14~~

13-14 Credits

Spring 1st Year

- ENGR 13200 - Transforming Ideas To Innovation II ♦ *(FYE Requirement #2)* - Credit Hours: 2.00

OR ENGR 16200

- PHYS 17200 - Modern Mechanics *(FYE Requirement #6)* - Credit Hours: 4.00

- MA 16200 - Plane Analytic Geometry And Calculus II ♦ *(FYE Requirement #4)* - Credit Hours: 5.00 or
- MA 16600 - Analytic Geometry And Calculus II ♦ *(FYE Requirement #4)* - Credit Hours: 4.00

- Written Communication Selective *(FYE Requirement #8)* - Credit Hours: 3.00-4.00 (satisfies Written Communication for core) or
- Oral Communication Selective *(FYE Requirement #8)* - Credit Hours: 3.00 (satisfies Oral Communication for core)

First-Year Engineering Selective (*FYE Requirement # 7*) - Credit Hours: 3.00-4.00

- CHM 11600 - General Chemistry or
- CS 15900 - C Programming or
- BIOL 11000 - Fundamentals Of Biology I or
- BIOL 11100 - Fundamentals Of Biology II

-20

16 Credits

Sample Computer Engineering Plan of Study

Combined with two semesters for FYE above, the following is an example of a 4-year plan that satisfies the BSCMPE degree requirements.

Fall 2nd Year

- ECE 29401 - Electrical And Computer Engineering Sophomore Seminar
- ECE 20001 - Electrical Engineering Fundamentals I
- ECE 20007 - Electrical Engineering Fundamentals I Lab
- ECE 26400 - Advanced C Programming OR
- ECE 36900 - Discrete Mathematics For Computer Engineering
- MA 26100 - Multivariate Calculus

C Programming (if not taken in FYE)

- CS 15900 - C Programming

16-19 Credits

Spring 2nd Year

- ECE 20002 - Electrical Engineering Fundamentals II
- ECE 20875 - Python For Data Science
- ECE 27000 - Introduction To Digital System Design

Mathematics Requirement

- MA 26600 - Ordinary Differential Equations or
- MA 26200 - Linear Algebra And Differential Equations

- Foundational General Education I (Human Cultures: Humanities) - Credit Hours: 3.00

16-17 Credits

Fall 3rd Year

- ECE 30100 - Signals And Systems
- ECE 36200 - Microprocessor Systems And Interfacing
- ECE 36800 - Data Structures
- ECE 39401 - Professional Communications And Diversity
- ECE Science Selective - Credit Hours: 0.00-4.00
- Foundational General Education II (Human Cultures: Behavioral/Social Science) - Credit Hours: 3.00

14-18 Credits

Spring 3rd Year

- ECE 30200 - Probabilistic Methods In Electrical And Computer Engineering
- PHYS 27200 - Electric And Magnetic Interactions
- Computer Engineering Selectives - Credit Hours: 7.00
- Foundational General Education III (Science, Technology, and Society) - Credit Hours: 3.00

16 Credits

Fall 4th Year

Senior Design Requirement Option I

- ECE 47700 - Digital Systems Senior Project

- MA 26500 - Linear Algebra or
- Advanced Math Selective - Credit Hours: 3.00

- Computer Engineering Selectives - Credit Hours: 3.00
- General Education IV - Credit Hours: 3.00
- Elective - Credit Hour: 0.00-3.00

15 Complementary Selective -2

13-16 Credits

Spring 4th Year

- ECE 49401 - Professional Communication Capstone
- Computer Engineering Selectives - Credit Hours: 6.00
- Engineering Breadth Selective - Credit Hours: 3.00
- General Education V - Credit Hours: 3.00
- General Education VI - Credit Hours: 3.00
- Elective - Credit Hours: 0.00-2.00

16-18 Credits

Pre-Requisite Information

For pre-requisite information, click here.

Critical Course

The ♦ course is considered critical.

In alignment with the Degree Map Guidance for Indiana's Public Colleges and Universities, published by the Commission for Higher Education (pursuant to HEA 1348-2013), a Critical Course is identified as "one that a student must be able to pass to persist and succeed in a particular major. Students who want to be nurses, for example, should know that they are expected to be proficient in courses like biology in order to be successful. These would be identified by the institutions for each degree program".

Disclaimer

The student is ultimately responsible for knowing and completing all degree requirements.

Consultation with an advisor may result in an altered plan customized for an individual student.

The myPurduePlan powered by DegreeWorks is the knowledge source for specific requirements and completion.

Computer Engineering Selectives 2024-2025 Catalog Term			
Computer Engineering Selective	**Prerequisites**	**Credits**	**Semester(s) Offered**
ECE 30834 – Fundamentals of Computer Graphics	ECE 36800	3	Fall
ECE 30861 – Software Engineering	ECE 36800	3	Fall
ECE 30862 – Object Oriented Prog with C++ and Java **OR** ECE 39595 - Object Oriented Programming with C++	ECE 26400	3	Fall
ECE 30864 – Software Engineering Tools	ECE 26400 [minimum grade of C]	1	Fall, Spring
ECE 33700 – ASIC Design Laboratory	ECE 27000 [minimum grade of C]	2	Fall, Spring
ECE 40400 – Introduction to Computer Security	ECE 36800	3	Spring
ECE 40862 – Software for Embedded Systems **OR** ECE 56800 – Embedded Systems	CS 15900, ECE 36200 ECE 43700	3 3	Fall Spring
ECE 40863 – Introduction to Computer Networks **OR** ECE 50863 – Computer Network Systems	ECE 20875, ECE 26400, ECE 36800 ECE 36800 [minimum grade of B]	4 3	Fall Spring
ECE 40875 – Data Mining Basic Concepts and Techniques **OR** ECE 59500 – Introduction to Data Mining	ECE 20875, ECE 30200 [may be taken concurrently ECE 20875, ECE 30200, MA 26500	3 3	Spring Fall
ECE 43700 – Computer Design and Prototyping	ECE 33700, ECE 36200	4	Fall, Spring
ECE 46800 – Intro to Compilers & Translation Engineering **OR** ECE 57300 – Compilers & Translation Writing Systems	ECE 36200, ECE 36800 ECE 36200, ECE 36800	4 3	Fall Fall
ECE 46900 – Operating Systems	ECE 36800	4	Spring
ECE 47300 – Introduction to Artificial Intelligence **OR** ECE 57000 – Artificial Intelligence	ECE 36800 ECE 30200, ECE 36800	3 3	Spring Fall, Spring
ECE 49595 – Undergraduate Computer Vision	ECE 20875, ECE 30100, ECE 30200, ECE 36800, MA 2100, MA 26500	3	Fall
ECE 54700 – Introduction to Computer Comm Networks	ECE 30200	3	Fall
ECE 51220 – Applied Algorithms	EE 36800	3	Fall odd yrs
ECE 59500 – Advanced Software Engineering	ECE 30861, ECE 36800	3	Spring

(Continued on Back)

Computer Engineering Selective Special Content	Prerequisites	Credits	Semester(s) Offered
ECE 20008	ECE 20002 [may be taken concurrently], ECE 20007	1	Fall, Spring
ECE 29600/49600	Permission of Instructor	1-3	Fall, Spr, Sum
ECE 39600	Permission of Instructor	1	Fall, Spring
All 40000-level or higher ECE courses not on any other list	See Catalog		See Catalog
VIP 27900/37900/47900		2	Fall, Spring
EPCS 20100/20200/30100/30200/40100/40200		1-2	Fall, Spring

Complementary Selectives Only	Prerequisites	Credits	Semester(s) Offered
All 30000-level ECE courses not already required or listed above	See Catalog		See Catalog

Senior Design Reqirement – Choose One (4)

- **Option I**
  ECE 49022 – Electrical Engineering Senior Design Projects

- **Option 2**
  ECE 47700 – Digital Systems Senior Project

- **Option 3**
  ECE 49595 – Open Source Software

- **Option 4**
  Must be taken in each of 2 consecutive semesters
  EPCS 41200 – Senior Design Participation in EPICS

- **Option 5**
  Must be taken in 2 consecutive semesters
  VIP 47921 – Senior Design Participation in Vertically Integrated Projects (VIP) I
  VIP 47922 – Senior Design Participation in Vertically Integrated Projects (VIP) II

BS in Electrical Engineering and BS in Computer Engineering
Approved Complementary Selective Courses
2024 - 2025

AAE	20000:59900
AAS	10000:59900
ABE	20000:59900
AD	10000:59900
AFT	30000:59900
AGEC	10000:59900
AGR	10000:59900
AGRY	10000:59900
AMST	10000:59900
ANSC	10000:59900
ANTH	10000:59900
ARAB	10000:59900
ASAM	10000:59900
ASEC	10000:59900
ASL	10000:59900
ASTR	10000:59900
AT	10000:59900
BAND	10000:59900
BCHM	10000:59900
BIOL	10000:59900
BME	20000:59900
BTNY	10000:59900
CDIS	10000:59900
CE	20000:59900
CEM	20000:59900
CGT	10000:59900
CHE	20000:59900
CHM	11500:59900
CHNS	10000:59900
CLCS	10000:59900
CM	10000:59900
CMPL	10000:59900
CNIT	10000:59900
COM	10000:59900
CS	18000:59900
CSR	10000:59900

DANC	10000:59900
EAPS	10000:59900
ECET	10000:59900
ECON	10000:59900
EDCI	10000:59900
EDPS	10000:59900
EDST	10000:59900
EEE	20000:59900
ENGL	10000:59900
ENGR	10000:59900
ENGT	10000:59900
ENTM	10000:59900
ENTR	10000:59900
FNR	10000:59900
FR	10000:59900
FS	10000:59900
FVS	10000:59900
GER	10000:59900
GREK	10000:59900
GS	10000:59900
GSLA	10000:59900
HDFS	10000:59900
HEBR	10000:59900
HIST	10000:59900
HK	10000:59900
HONR	10000:59900
HORT	10000:59900
HSCI	10000:59900
HSOP	10000:59900
HTM	10000:59900
IDE	20000:59900
IDIS	20000:59900
IE	20000:59900
IET	10000:59900
IT	10000:59900
ITAL	10000:59900

JPNS	10000:59900
JWST	10000:59900
KOR	10000:59900
LA	10000:59900
LALS	10000:59900
LATN	10000:59900
LC	10000:59900
LING	10000:59900
MA	30000:59900
MARS	10000:59900
ME	20000:59900
MET	10000:59900
MFET	10000:59900
MGMT	10000:59900
MSE	20000:59900
MSL	30000:59900
MUS	10000:59900
NRES	10000:59900
NS	10000:59900
NUCL	20000:59900
NUTR	10000:59900
OBHR	10000:59900

OLS	10000:59900
PES	10000:59900
PHIL	10000:59900
PHYS	24100:59900
POL	10000:59900
PSY	10000:59900
PTGS	10000:59900
PUBH	10000:59900
REL	10000:59900
RUSS	10000:59900
SCLA	10000:59900
SFS	10000:59900
SLHS	10000:59900
SOC	10000:59900
SPAN	10000:59900
STAT	10000:59900
SYS	10000:59900
TDM	10000:59900
TECH	10000:59900
THTR	10000:59900
TLI	10000:59900
WGSS	10000:59900

BS in Electrical Engineering and BS in Computer Engineering
Approved General Education Elective Courses
2024 – 2025
(Bold are Advanced-Level, *must gain ECE approval)

Aerospace Studies

AFT	**47100**

African American Studies

AAS	27100 27700

Agricultural Economics

AGEC	20300 20400 21700 **22000** 25000 29600* **33000** **33100** **34000** **35200** **40600** **41000** **41500** **45000**

American Studies

AMST	20100 **30100** **32000** **32500**

Communication

COM	10200 11400 20400 **21000** 21200 21700 22400 25000 25100 25300 25600 **30300** **31200** **31400** **31500** **31600** **31800** **32000** **32400** **32500** **32900** **33000** **33200** **33300** **35100** **35200** **36800** **37200** **37400** **37600** **38100** **41100** **41200** **41500** **41600** **42400** **43500** **49100***

Comparative Literature

CMPL	26600 26700

Consumer Science

CSR	10300 20900 **34200** **48400**

Economics

ECON	16500 21000 21700 25100 25200 **30100** **34000** **35200** **35500** **36000** **36100** **36200** **36500** **36700** **36800** **37000** **37500** **38000** **38500** **41900** **42200** **45600** **46100** **46600** **47000** **47100** **48500** **51200**

Educational and Psychological Studies

EDPS	**31500** **31600** **31700**

English

ENGL	10100 **10200** 10300 10600 10800 11000 **11100** **20500** 22300 22700 23000 23100 23200 23500 23700 23800 24000 24100 25000 25700 25800 26200 26400 26600 26700 27600 27900 28600 **30400** **30600** **30900** **32200** **32700** **33000** **33100** **33300** **33500** **33700** **33900** **34500** **35000** **35100** **35600** **35800** **36000** **36500** **36600** **36700** **36800** **37200** **37300** **37500** **37700** **37900** **38100** **38200** **38300** **38600** **38700** **38900** **39600** **40600** **40700** **40900** **41100** **41200** **41300** **41400** **41900** **42000** **42100** **44100** **44200** **44400** **46000** **46200** **46300** **46600** **46800** **46900** **47000**

Entrepreneurship

ENTR	20000 **31000**

Food Science

FS	**47000**

Foreign Languages and Literature

ARAB	10100 **10200** **20100** **20200**
CHNS	10100 **10200** 10700 **20100** **20200** **20700** 23000 24100 28000 28500 **30100** **30200** **30500** **31300** **34100** **34200** **40100** **40200** **49000*** **49300***

CLCS	18100 23010 23100 23200 23300 23500 23700 23800 23900 **33000 33100 33300 33500 33700 33900 38000 38100 38300 38500 38700 48300**
FR	10100 **10200** 10500 **11200 20100 20200 20500 21100 21200 22400 24100 28000 30100 30200 32400 33000 34100 38000 39400 39600 40100 40200 44300 48000**
GER	10100 **10200** 10500 **11200 20100 20200 20500 21100 21200 22300 22400** 23000 **24100 28000* 30100 30200 31200 32300 33000 34100 40100 48000**
GREK	10100 **10200** 10500 **20100 20200 49000***
HEBR	10100 **10200** 12100 **12200 20100 20200 22200 38000**
ITAL	10100 **10200** 10500 **10500 11200 20100 20200 20500 20500 21100 21200** 23100 28000 28100 **30100 30200** 33000 **33300 33500 34100 34200 39300 39400**
JPNS	10100 **10200 20100 20200** 23000 **24100** 28000 **30100 30200 31300 33000 34100 34200 36100 36200 40100 40200 48000 49000***
KOR	10100 **10200 20100 20200 30100 30200 33000 40100**
LATN	10100 **10200** 10500 **20100 20200 34300 34400 34500 34600 44200 44300 44400 44500 44600**
LC	10100* 10200* 20100* 20200* 23000 23300 23500 23900 26100 26100 **33100 33300 36800 37100 49000***
PTGS	10100 **10200 11200 20100 20200 21200**
RUSS	10100 **10200** 11100 **11200 20100 20200 21100 21200 24100** 28100 **30100 30200 33000 34100 34200 36100 36200 40100 40200 48000**
SPAN	10100 **10200** 10500 **11200 20100 20200 20500 21100 21200** 23100 23500 **24100 28000 30100 30200 30801 32100 33000 33500 34100 34200 36100 36200 40100 40200 48000 48100 48200 48500**

General Studies

GS	10000 **10100**

History

HIST	10300 10400 10500 15100 15200 21000 21100 22800 22900 23005 23800 24000 24100 24300 24500 24600 25000 27100 27200 **30000 30200 30301 30400 30505 30605 30701 31005 31200 31405 31505 31700 31800 31905 32000 32200 32300 32400 32600 32700 32800 32900 33000 33100 33205 33300 33400 33501 33505 33700 33900 34000 34100 34200 34300 34400 34901 35000 35100 35305 35400 35500 35600 35700 35900 36000 36500 36600 37100 37200 37500 37600 37700 38001 38200 38300 38400 38700 39100 39400 39600 39800 40200 40300 40400 40500 40600 40700 40800 41200 41300 42300 42700 43800 43900 44000 44100 46000 46100 46300 46500 46700 46800 46900 47005 47100 47200 47300 47500 49200* 49300* 49400**

Human Development & Family Studies

HDFS	20100 21000 **22100** 25500 **30100 31100 31200 32500 42400**

Interdisciplinary Studies

IDIS	**33000 49000***

Jewish Studies

JWST	**33000**

Languages and Cultures

Linguistics

LING	20100 **32100**

Management

MGMT	20000 **20100 30400 31000 32300 35400 38200 41100 41200 41300 41350 44301 45500**

Medieval and Renaissance Studies

MARS	12000

Organizational Behavior and Human Resources

OBHR	**33000**

Philosophy

PHIL	10100 11000 11005 11100 11400 12000 20600 20700 20800 21900 22100 22500 23000 23100 24000 24200 26000 27000 27500 28000 29000 29300* **30100 30200 30300 30400 30600 31900 32200 32400 32900 33000 33100 35000 35100 40200 40600 41100 42100 42400 42500 43000 43100 43200 43500 46500 49000* 53500**

Political Science

POL	10100 12000 13000 14100 20000 22200 22300 23000 23100 23200 23500 23700 **30000 30400 30500 31400 32300 32600 32700 33500 33500 34200 34400 34500 34600 34800 35000 35100 35200 35300 36000 37000 37200 37300 41000 41100 41300 41500 41900 42300 42800 42900 43000 43100 43200 43300 43400 43500 44700 45300 46000 46100 46200 49300***

Psychology

PSY	12000 **12100** 12300 **20000 22000 22200 23500 23900 24000 24400 25100 27200** 28500 **31000 31100 31400 33300 33500 33600 33700 34200 35000 35100 35400 35600 36000 36100 36400 36500 36700 36800 37600 38000 39100* 39200* 42600 42800 44400 46400 47300 47500 48400**

Religious Studies

REL	20000 23000 23100 **31800 35000**

Sociology and Anthropology

ANTH	10000 20100 20300 20400 20500 21000 23000 **30700 31200 31300 32000 33500 33600 34000 34100 35200 36800 37300 37700 37900 38000 39000* 39200* 40400 41400 42500 43500 43600 46000**

SOC	10000 22000 **31000** **31200** **31600** **32400** **32600** **32700** **32800** **33400** **33800** **33900** **34000** **34100** **35000** **35200** **35600** **36700** **36800** **37400** **39100*** **40200** **41100** **41900** **42000** **42100** **42600** **42900** **45000** **45400** **49300***

Speech, Language, and Hearing Sciences

ASL	10100 **10200** **20100** **20200** 28000
SLHS	11500 22700 **30900** **40100** **41900***

Visual and Performing Arts

A&D	10500 **10600** 11300 **11400** 11700 12500 14600 **20000** **20500** **20600** **21300** **21500** 22000 22600 22700 **23000** **23500** 24200 **24600** **25000** 25100 25500 **25600** **26200** 26500 26600 26700 27000 27100 27500 **30000** **31100** **31200** **31400** **31600** **32600** **32700** **33000** **33200** **33300** **34100** **34200** **35000** **35900** **36200** **36300** **36500** **36600** **36800** **36900** **37000** **38000** **38100** **38200** **38300** **38400** **38400** **38500** **39000** **39100** **39500** **39600** **40000** **40500** **40600** **42100** **44200** **45100** **45200** **45400** **46200** **46800** **47000** **48500** **49000*** **49200**
DANC	10100 10200 10300 14000 20100 20200 20300 24000 24500 25000 26100 **30100** **35000**
FVS	26100 **33600**
MUS	13200 **13300** 16100 25000 26100 **29300*** **34100** **36100** **36200** **36300** **36400** **37400** **37500** **37600** **37800** **38100** **38200** **38300** **38400** **49000***
THTR	13300 15003 16100 16200 16400 20100 **21300** **32300** **33300** **33400** **33600** **36200** **38000** **38100** **41300** **43300** **43400** **44000**

Women's, Gender, and Sexuality Studies

WGSS	28000 28200 **38000**