BS in Electrical Engineering (Fall 2024 & Later)

Minimum 120 credits required for Bachelor's degree

Foundational Core (27-29 Credits)		**Grade**
FYWS-125[1]	First Year Seminar	
MA [2]	Foundational Core Math course	
Choose 1 course from each area *		
[3,4]Natural/Physical Science		
Literature		
History	HI-100, HI-102 or HI-110	
Arts/Design/Comm. [5]		
Philosophy		
Theology/Relig		
Social/Behavioral Science [6]		

Human Journey Seminars: Great Books in CIT (6 Credits)

CIT 201	CIT Seminar I	
CIT 202	CIT Seminar II	

Liberal Arts Explorations (LAE) (12 Credits Total)

Student must complete 4 courses from at least 2 different subjects and one course in each area. (see list on Registrar's Website - checksheets)		
Humanistic Inquiry (3 credits)		
Social and Global Awareness (3 credits)		
See Note 7		
Scientific Literacy (3 credits)		
See Note 8		
LAE in any area (3 credits)		

* See list of courses.

[1](Requires Grade C or higher)

[2] Fulfilled by MA 151

[3] Fulfilled by PY 151

[4]Science/Natural Science courses includes approved Math and Computer Science courses. Students are required to take at least one course in Biology, Chemistry, or Physics in the Foundational or Liberal Arts Exploration Core. CS and MA courses may be used as a Science/Natural Science in either the Foundational Core **or** as a requirement in the LAE Core but not in both categories.

[5] AR 114 is recommended

[6] EC 202 is recommended

[7] Fulfilled by CS 319

[8] Fulfilled by PY 152

Note: MA 006 and ESL courses **will not** count towards the 120 credit graduation requirement.
Approved Study Abroad courses may be used to satisfy requirements for the foundational core or a Liberal Arts Exploration
A maximum of 8 Applied Music credits may be applied towards graduation

Required Curriculum for Degree in Major

Required courses		**Grade**	Credits	Prerequisites
CS 111	Introduction to Structured Programming		3	None
CS 112	Data Structures		3	CS 111
CS 113	Discrete Structures		3	None
CSE 125	CSE Explorations		1	None
ENGR 125	Engineering Explorations		1	None
ENGR 200	Computational Methods in Engr		4	CS 112
ENGR 211	Circuits and Systems with Lab		4	MA 152 (co-req)
ENGR 212	Digital Design with Lab		4	CS 113
ENGR 313	Signal Processing with Lab		4	ENGR 211, MA 254 (co
ENGR 324	Embedded Systems with Lab		4	CS 112, ENGR 200
ENGR 339	Power Systems with Lab		4	ENGR 211
ENGR 349	Electromagnet Theory with Lab		4	MA 152
	Elective			
	Elective			
	Elective			
	Elective			
EE 413	Internship in Engineering		3	BU 296, ENGR 200, 21
EE 417	Engineering Design Project I		2	ENGR 324
EE 418	Engineering Design Project II		3	EE 417

Required Supporting courses		**Grade**		
BU 296	Career Development and Readiness		0	None
MA 151	Calculus I		4	MA 140
MA 152	Calculus II		4	MA 151
MA 253	Calculus III		4	MA 152
MA 254	Differential Equations		3	MA 152
MA 261	Linear Algebra		4	MA 152
CSE 300	Stat and Prob for CS and ENGR		3	MA 151
CS 319	Computer Ethics		3	PH 1xx/2xx
PY151/153	Principles of Physics I and Lab		4	MA 152
PY152/154	Principles of Physics II and Lab		4	PY 151

Electives (4 courses or 3 + Coop, 12-16 credits)		**Grade**		
MGT 101	Organization Management		3	None
EC 202	Principles of Microeconomics		3	MA 140
AC 221	Financial Accounting and Reporting		3	None
MK 201	Principles of Marketing		3	None
FN 215	Financial Management		3	AC 221
ENGR 314	Directed Research in Engr		3	ENGR 200, 211, 212
ENGR 315	Analog Circuits with Lab		4	ENGR 211
ENGR 325	FPGA Design with Lab		4	ENGR 212
ENGR 350	Sensors & Robotics with Lab		4	ENGR 200, 211, 212
ENGR 351	PCB Design with Lab		4	ENGR 211
ENGR 353	VLSI Design with Lab		4	ENGR 211
ENGR 411	Adv Image Proc with Lab		4	ENGR 313
ENGR 419	Cooperative Studies in Engineering		6	ENGR 200, 211, 212

Checksheet Key	
T	Course transferred and Requirement satisfied
W	Requirement waived
TW	Course transferred and Requirement waived

SACRED HEART UNIVERSITY

School of Computer Science and Engineering

BS in Electrical Engineering (Fall 2024 & Later)

SUGGESTED FOUR YEAR SEQUENCE OF STUDY:

YEAR 1	SEMESTER I	YEAR 1	SEMESTER 2
FYWS 125	First Year Seminar		LAE in any area
MA 151	Calculus I	MA 152	Calculus II
CS 111	Intro to Structured Programming	CS 112	Data Structures
CSE 125	CSE Explorations	CS 113	Discrete Structures
HI 100 or 102	Foundational Core 1/6	ENGR 125	Engineering Explorations

YEAR 2	SEMESTER 3	YEAR 2	SEMESTER 4
CIT 201	CIT Seminar I	CIT 202	CIT Seminar II
ENGR 212	Digital Design with Lab	ENGR 211	Circuits and Systems with Lab
MA 253	Calculus III	MA 254	Differential Equations
PY 151/153	Principles of Physics I / Lab	PY 152/154	Principles of Physics II / Lab
		ENGR 200	Computational Methods in ENGR

YEAR 3	SEMESTER 5	YEAR 3	SEMESTER 6
	Elective 1/4	MA 261	Linear Algebra
ENGR 339	Power Systems with Lab	CSE 300	Stat and Prob for CS and ENGR
ENGR 349	Electromagnet Theory with Lab	ENGR 313	Signal Processing with Lab
	Elective 2/4		Elective 3/4
	Foundational Core 2/6	ENGR 324	Embedded Systems with Lab
		BU 296	Career Development and Readines

YEAR 4	SEMESTER 7	YEAR 4	SEMESTER 8
EE 417	Engineering Design Project I	EE 418	Engineering Design Project II
EE 413	Internship in Engineering		Elective 4/4
CS 319	Computer Ethics (LAE awareness)		Foundational Core 4/6
	LAE Humanistic Inquiry		Foundational Core 5/6
	Foundational Core 3/6		Foundational Core 6/6

Note: Foundational Core should be completed by…