South Dakota State University

Bachelor of Science
Major: Artificial Intelligence Engineering
2026-2027 Sample 4-Year Plan
Total Degree Requirements: 130 credits

Student _____ **Student ID#** _____ **Student Phone #** _____

Advisor _____ **Minimum GPA** _____ **Minor/Career Interest(s)** _____

Students are not limited to this plan; it is meant to be used as a guide for planning purposes in consultation with your advisor. The sample schedule is one possible path to completing your degree within four years. For official program requirements, please refer to the Undergraduate Catalog.

FIRST YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AIE 101	Introduction to Artificial Intelligence Engineering		1		
AIE 101L	Introduction to Artificial Intelligence Engineering Lab		1		
CHEM 112	General Chemistry I	p. MATH 114 or higher	3		
CHEM 112L	General Chemistry I Lab	p. MATH 114 or higher, c. CHEM 112	1		
CSC 150	Computer Science I		3		
ENGL 101	Composition I (SGR #1)	p. Placement	3		
MATH 123	Calculus I (SGR #5)	p. Placement	4		
		Total Credit Hours	16		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
CSC 250	Computer Science II	p. CSC 150	3		
MATH 125	Calculus II	p. MATH 123	4		
PHYS 207	Fundamentals of Physics I (SGR #6)	p. MATH 123	3		
PHYS 207L	Fundamentals of Physics I Lab (SGR #6)	p. MATH 123, c. PHYS 207	1		
SGR #1	Written Communication (SGR #1)	p. ENGL 101	3		
SGR #2	Oral Communication (SGR #2)		3		
		Total Credit Hours	17		

SECOND YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AIE 303	Ethical and Security Issues in Computing		3		
CSC 300	Data Structures	p. CSC 250 (>= C)	3		
GE 385	Introduction to Systems Engineering and Management		3		
MATH 270	Computational Linear Algebra	p. MATH 123	3		
SGR #3	Social Sciences (SGR #3)	SGR #3 satisfied by coursework from 2 disciplines; one must fulfill civics requirement	3		
SGR #4	Arts and Humanities (SGR #4)		3		
		Total Credit Hours	18		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
CSC 346	Object Oriented Programming	p. CSC 300 (requires grade >= C)	3	S	
EE 245	Digital Systems	p. CSC 150 (>= C)	3	S	
EE 245L	Digital Systems Lab	c. EE 245	1	S	
GE 401	Engineering Ethics and Economics		1		
MATH 316	Discrete Mathematics	p. MATH 270	3		
PHYS 209-209L or BIOL 151-151L or BIOL 153-153L or CHEM 114-114L	Fundamentals of Physics II and Lab General Biology I and Lab General Biology II and Lab General Chemistry II and Lab	p. PHYS 207-207L p. CHEM 112-112L	4		
STAT 381	Probability and Statistics	p. MATH 125	3		
		Total Credit Hours	18		

Information Subject to Change. This is not a contract.

p. = Course Prerequisite; c. = Course Co-requisite
Semester: F = Fall, S = Spring, SU = Summer

THIRD YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AIE 401	Artificial Intelligence Engineering	p. GE 385, c. EE 345 and SE 305	3		
CSC 354	Introduction to Systems Programming	p. CSC 346 (>= C)	3	F	
CSC 484	Database Management Systems	p. CSC 300	3		
EE 345	Computer Organization	p. EE 245 (>= C)	3	F	
SE 305	Foundations Of Software Engineering	p. CSC 300 (>= C)	3	F	
SGR #3	Social Sciences (SGR #3)	SGR #3 satisfied by coursework from 2 disciplines; one must fulfill civics requirement	3		
		Total Credit Hours	18		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AIE Technical Elective	Select from 300- or 400-level AIE, CSC, EE, ABE, EM, GE, ME, PRAG, MATH, and STAT prefix courses. Students may only select up to 3 credits from MATH and STAT prefix courses.		3		
CSC 474	Computer Networks		3		
EE 347	Micro System Design	p. EE 345	3	S	
EE 347L	Micro System Design Lab	c. EE 347	1	S	
MATH 374	Scientific Computation I	p. CSC 150, MATH 125	3		
SE 306	Software Project Management and Testing	p. SE 305 (>= C)	3	S	
		Total Credit Hours	16		

FOURTH YEAR

Fall

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AIE 464	Artificial Intelligence Engineering Capstone I	Senior standing	3		
AIE Technical Elective	Select from 300- or 400-level AIE, CSC, EE, ABE, EM, GE, ME, PRAG, MATH, and STAT prefix courses. Students may only select up to 3 credits from MATH and STAT prefix courses.		6		
EE 469	Fundamentals of High-Performance Computing		3		
SE 340	Software Architecture	p. CSC 346	3		
		Total Credit Hours	15		

Spring

Prefix + Number	Course Title	Prerequisites/Comments	Credits	Semester	Grade
AIE 465	Artificial Intelligence Engineering Capstone II	p. AIE 464	3		
AIE Technical Elective	Select from 300- or 400-level AIE, CSC, EE, ABE, EM, GE, ME, PRAG, MATH, and STAT prefix courses. Students may only select up to 3 credits from MATH and STAT prefix courses.		6		
SGR #4	Arts and Humanities (SGR #4)		3		
		Total Credit Hours	12		

COMMENTS/NOTES

Students from all academic majors can pursue graduation with Fishback Honors College distinction. View the Honors program requirements.