

Software Engineering – Associate in Applied Science (SOEN.AAS)

Software engineering is the process of analyzing user needs to design, develop, test, deploy and manage software applications systems. Software applications systems connect you to a computer, tablet, smartphone or mobile device. Coursework will include studies in databases, cloud computing, systems design, and multiple programming languages to create scalable programs, web applications, and cloud-based software. This degree is for students who want to develop the skills necessary to pursue their career goals or transfer to work toward a bachelor's degree in the field. Job opportunities may include: applications developer, computer consultant, information technology analyst, programmer, software developer, or software engineer.

Minimum credits: 60

Minimum cumulative GPA: 2.0

Minimum grade in all courses: 2.0

Minimum Jackson College credits: 15

GENERAL EDUCATION REQUIREMENTS (20-22 CREDITS)

GEO 1: Write clearly, concisely and intelligibly (3 credits)

Take the following:

ENG 131 Writing Experience I

GEO 2: Recognize the importance of equity and inclusion in a diverse society (3 credits)**

Choose one of the following:

ANT 131 Cultural Anthropology
COM 250 Intercultural Communication
HIS 211 Minority Groups in America
PLS 262 International Relations

GEO 3: Demonstrate computational skills and mathematical reasoning (4 credits)

Choose one of the following:

MAT 139 College Algebra

GEO 4: Demonstrate scientific reasoning (4-5 credits)**

Choose one of the following:

PHY 131 Conceptual Physics
PHY 231 College Physics I
PHY 251 Modern University Physics I

GEO 5: Understand human behavior and social systems, and the principles which govern them (3 credits)**

Choose one of the following:

ECN	231	Macroeconomics
ECN	232	Microeconomics
PLS	141	American National Government
PSY	140	Introduction to Psychology

GEO 6: Identify artistic, linguistic, and theoretical perspectives across the human experience (3 credits)**

Choose one of the following:

ART	111	Art History: Prehistory to 1400
ART	112	Art History: Renaissance to Present
HUM	131	Cultural Connections
MUS	131	Understanding Music

SOFTWARE ENGINEERING RELATED REQUIREMENTS (16 CREDITS)

Take the following:

CNS	101	Network+/Network Fundamentals
CNS	131	Linux Administration
CIS	245	Internship/Externship
CNS	251	Cloud Computing
COM	231	Communication Fundamentals

SOFTWARE ENGINEERING CORE REQUIREMENTS (24 CREDITS)

Take the following:

CIS	146	Web Design & Development
CIS	158	Programming Logic
CIS	165	JAVA Programming
CIS	170	Programming in C++
CIS	220	Database Systems
CIS	244	Web Programming
CIS	265	Android Mobile Development
CIS	273	Systems Concepts & Design

***We have listed the preferred course option(s) in this category, but other courses may be used to meet this requirement. Your student success navigator will assist you making the best course selection based on your schedule and interests. You can view the complete list of approved GEO courses in the [Jackson College Catalog](#) on pages 14-16.*