



## Software Engineering

Certificate of Professional Preparation | Code: PBC06 | 28 Credits

**CIP (5551102010)**

**Effective Term:** Fall 2022 (2227)

Software engineers contribute to the development and maintenance of computer systems software and applications software. Computer systems software consists of programs that include computing utilities and operating systems. Applications software includes a variety of user-focused programs from web-browsers to multimedia applications. The *Certificate of Professional Preparation* in Software Engineering will provide students with the knowledge of software development, computer architecture, algorithm design, and data structures to apply software engineering principles to software creation. By applying these engineering principles to every stage of the development process, students learn how to specify software requirements from clients and how to design, implement and validate software solutions. *Note: Program Admissions Requirements: Baccalaureate degree in any field of study from a regionally accredited institution.*

### Program Course Requirements

Course ID	Course Title	Credits	Requisites
<b><i>Programming Foundation Core: 8 Credit Hours</i></b>			
COP 1334	Introduction to C++ Programming	4	
COP 2800	Java Programming	4	Prerequisite: COP1334
<b><i>Program Core: 20 Credit Hours</i></b>			
CET 3126C	Computer Architecture	4	
CET 3383C	Software Engineering I	4	Prerequisite: COP 2800
CEN 4025C	Software Engineering II	4	Prerequisite: CET 3383C
COP 3530	Data Structures	4	Prerequisite: COP 2800
COT 4400	Design and Analysis of Algorithms	4	Prerequisite: COP 2800 and Pre/Corequisite: COP 3530