Software Engineering

Graduate Certificate in Software Engineering

CERTIFICATE CODE - CG10

The certificate in software engineering program provides further education to individuals who are currently working in the computer and information technology industry. This program is offered online at evening times convenient for the working professional.

Students may apply for admission as non-degree students to complete the certificate requirements. These students may then optionally apply for transfer to the M.S.S.E. program. In addition, students already admitted to the M.S.S.E. may elect to receive the certificate after completing the necessary requirements.

ADMISSION REQUIREMENTS

Applicants for the certificate in software engineering must meet the following requirements:

• Hold a bachelor’s degree in any field from an accredited University.
• Submit a resume documenting at least one year of software development experience.
• By the semester in which the certificate is to be awarded, students must meet the following additional requirements:
  a. Submit a resume documenting at least three years of software development experience.
  b. Submit three letters of reference from persons familiar with the student's professional work.

Students working toward the certificate in software engineering are not degree candidates and are admitted as non-degree students. However, they may apply for admission to the M.S.S.E. program (see below) after satisfactory completion of most of the certificate requirements.

Students initially admitted to the M.S.S.E. program may elect to receive the certificate after satisfactory completion of the five core courses and the certificate paper (see below). In this case the resume and letters of reference are not required.

PROGRAM REQUIREMENTS

The certificate program consists of completing five approved courses and a certificate term paper. Students who achieve a B- or higher in each of the first four courses of the certificate program may qualify to enter the M.S.S.E. program, as described below.

The Software Engineering certificate is designed to allow a pathway to graduate for students who have completed the core M.S.S.E. requirements but have decided to not continue with the M.S.S.E. studies. Students in this program would have initially been admitted to the M.S.S.E. program.

Admissions

Students seeking admission to the Certificate in Software Engineering program must meet the following requirements to be admitted:

• Submit an official transcript showing completion of a Bachelor's degree in Computer Science, Computer Engineering, Software Engineering, or a closely related field from an accredited University with a minimum cumulative grade point average of 3.00 (on a 4-point scale).
• Submit a resume, three professional/academic letters of recommendation and a personal statement.
• International applicants must submit proof of English language proficiency.
• The GRE is not required.

Students may enroll in core courses in the M.S.S.E. program to complete the certificate. They may apply to the M.S.S.E. program: WVU policies on residency and credit sharing by programs should be considered for planning multiple programs.

Certificate Learning Outcomes

SOFTWARE ENGINEERING

Upon completion of the certificate students should be able to:

• Achieve proficiency in the area of Software Project Management.
• Achieve proficiency in Software Analysis and Design.
• Understand the process of software Validation and Verification.
• Understand the process of Software Evolution.
• Achieve proficiency in Object-Oriented Design of software.