

Graduate Certificate in System Quality and Risk Evaluation

The System Quality and Risk Evaluation Graduate Certificate prepares students to work as

- Test Manager who will plan, test, and evaluate activities and oversee testing activities
- Systems Test Engineer with responsibilities to design and implement test strategies to ensure system quality
- Systems Integration Engineer who develops and manages interoperability across systems
- System analyst who analyzes system qualities and troubleshoots test failures
- Risk analyst who models and analyzes system risks

Students master the following skill set essential to this industry role:

- Reliability, Availability, Maintainability Analysis
- Analysis of Alternatives
- Testing Strategy
- Testing Infrastructure
- Testing Frameworks
- Testing Tools
- Automated Testing
- Continuous Integration
- Test Planning
- Decision Models
- Risk Analysis

The Graduate Certificate in System Quality and Risk Evaluation will be awarded upon successful completion of the 9-credit curriculum below. The courses are not listed in sequential order. All course work should be completed within two years of starting the certificate program. Students should e-mail questions to EngHelp@psu.edu.

9-Credit Required Curriculum			
Course #	Course Title	Semester Completed	Grade
SYSEN 520	Systems Engineering		
SYSEN 522	Systems Verification Validation & Testing		
SYSEN 536	Decision and Risk Analysis in Engineering		

Note: Students must maintain a minimum grade point average of 3.0 (B) throughout the program. Courses may be applied to master's programs if admitted as a degree-seeking student. If degree-seeking, you must formally apply for degree admission. Up to 15 credits earned may be transferred to a master's degree, subject to restrictions outlined in [GCAC-309 Transfer Credit](#). Completing this certificate does not guarantee admission to a degree program. To be awarded the graduate certificate, students must successfully complete 9 credits of course work. Students must complete each course with a grade of C or better, and an overall grade-point average of 3.0 in the certificate courses.

Questions & Advising - Students should contact EngHelp@psu.edu with any questions. After successfully completing the required course work, please submit a Graduate Certificate Completion Form found at <http://greatvalley.psu.edu/form/graduate-certificate-completion-form>.