Ph.D. Study in Systems Engineering
Doctoral study in systems engineering is available through the Ph.D. in Information Technology program, which offers advanced courses in this discipline. The doctoral program allows the student to take a broad range of courses and research options. Students may designate a concentration in systems engineering in their doctoral degree title. In that case the degree conferred upon a graduating student would be “Ph.D. in Information Technology with Concentration in Systems Engineering.” Students may also pursue such doctoral studies without designating a concentration in their degree title.

Requirements
Students seeking one of these concentrations must satisfy all the requirements for the Ph.D. degree in Information Technology. In addition, the following requirements must be met.

Admissions
Students are normally admitted with an M.S. degree in systems engineering, or some related engineering or information technology area.

Plan of Study
All decisions concerning the student's course requirements and plan of study must be approved by the advisor/director, with the consent of the department's doctoral coordinator.

Doctoral Supervisory Committee
The chair of the committee should be selected from the list of approved chairs of the SEOR department. The dissertation director must be a member of the SEOR department. The doctoral supervisory committee must include at least three members from the SEOR department. The composition of the doctoral supervisory committee is to be approved by the doctoral coordinator. Permission for the comprehensive examination and the dissertation defense are requested from the IT&E associate dean on the basis of a written request and plan that has been approved by the supervisory committee and the department’s doctoral coordinator.

Qualifying Examinations
Each student must take a set of four exams from three different degree programs from the following course list:

- SYST 520  System Design and Integration
- SYST 573  Decision and Risk Analysis
- OR 541  Deterministic Models in Operations Research
- OR 542  Stochastic Models in Operations Research
- STAT 554  Applied Statistics

Advanced Emphasis Requirement
At least 18 of the 24 credits in the advanced emphasis requirement must either be in SYST courses numbered 600 or higher or in IT courses with a SYST designation. All
exceptions to this rule must be approved by the student’s doctoral supervisory committee and the department's doctoral coordinator. The doctoral supervisory committee and the associate dean for graduate studies and research of IT&E must approve the overall plan of study. A list of IT courses with a SYST designation is available from the office of the SEOR Department.