The PhD in Software Engineering program is tailored to the student. The student must arrange a course program with the guidance and approval of a faculty member chosen as their graduate advisor. Adjustments can be made as the student's interests develop and a specific dissertation topic is chosen.

The software engineering researchers in the Computer Science Department are focused on issues related to effectively developing large-scale, complex systems. In particular, new categories of applications are emerging such as big data, cyber physical, and autonomous adaptable systems, which continue to drive leading edge research in software engineering on diverse topics. Key research areas include requirements engineering, architecture, design, service-oriented computing, testing and verification, static analysis, software maintenance and multi-agent systems.

**Program Description**
The PhD in Software Engineering requires 75 semester credit hours minimum beyond the baccalaureate degree.

Graduate assistantships feature a full tuition waiver and a stipend starting at $1,850/month and increasing to $2,150/month. Other opportunities include Jonsson School Distinguished Graduate Research Fellowships, the Computer Security and Information Assurance Scholarship for Service Program Fellowships, teaching assistantships and research assistantships. MS students on track to a PhD are also fully supported. Exceptional candidates are awarded a research excellence scholarship over and above the GA stipend.

For complete admission and degree requirements, view the Graduate Catalog at catalog.utdallas.edu.

**Career Opportunities**
Virtually all major companies and corporations need software related core competencies. Software engineers are central in developing and making use of these competencies. They work in teams that interface extensively with clients, company executives, IT managers, data scientists, security and domain experts.

Software engineering professionals are creative, highly collaborative, well paid, and in very high demand with employers. Graduates of the program seek academic positions at universities, as well as positions as researchers, senior software engineers and data scientists. Graduates often become industry experts in various fields like cyber security, artificial intelligence, machine learning and natural language processing.

**Marketable Skills**
Upon successful completion of the PhD in Software Engineering, graduates will be able to enter the workforce with the following skills:

- Designing and developing novel software engineering techniques
- Developing advanced, novel software systems following software engineering techniques
- Advanced critical thinking
- Conducting independent research
- Mentor and/or teach in the Software Engineering field