

# **ITMD: 511 Application Development Methodologies**

## **Chapter 1: Introduction to Software Engineering**

### **Exercise**

**1.1:** Explain why professional software that is developed for a customer is not simply the programs that have been developed and delivered.

**1.2:** What is the most important difference between generic software product development and custom software development? What might this mean in practice for users of generic software products?

**1.3:** Briefly discuss why it is usually cheaper in the long run to use software engineering methods and techniques for software systems.

**1.4:** Software engineering is not only concerned with issues like system heterogeneity, business and social change, trust, and security, but also with ethical issues affecting the domain. Give some examples of ethical issues that have an impact on the software engineering domain.

**1.5:** Based on your own knowledge of some of the application types discussed in Section 1.1.2, explain, with examples, why different application types require specialized software engineering techniques to support their design and development.

**1.6:** Explain why the fundamental software engineering principles of process, dependability, requirements management, and reuse are relevant to all types of software systems.

**1.7:** Explain how electronic connectivity between various development teams can support software engineering activities.

### **References**