# IT 6823 LM 3 Risk Management Learning Material

**Note**: The learning material is composed of a list of web links, videos, and other materials screened and/or created by the instructor. The material is organized by student outcomes. Essential information is included in this document and students are recommended to go to the links to learn more about a specific topic.

## Overview

Risk management is one of the major topics in information security and could be covered in a different course. We are just learning the essentials of the risk management in this module. This learning module is based on NIST SP 800-30 Rev. 1 Guide for Conducting Risk Assessments, which is called the Risk Assessment Guide thereafter. The Risk Assessment Guide is available at <https://csrc.nist.gov/publications/detail/sp/800-30/rev-1/final> and is also provided as a PDF file in D2L course website. The Risk Assessment Guide is a lengthy document, and you don’t need to know all the details. The keys are to comprehend the basic concepts and be able to use it as resource to conduct risk assessment. The student learning outcomes provide a guided tour to the document.

All page numbers in the documents are referred to the actual page number of NIST SP 800-30 Rev. 1 Guide for Conducting Risk Assessments, not the page number on footnote.

Risk management is part of Identify function in the NIST security framework.

## Student Learning Outcomes

* **Describe risk management and its major goals**
* Page 10 of the Risk Assessment Guide
* **Explain the risk management process**
* Be able to recognize the 4 major components of risk management (Page 13-14 of the Risk Assessment Guide)
* Risk framing components (page 16)
* **Describe the key risk factors in a risk model**
* Be able to recognize the key concepts such as threats, vulnerabilities and predisposing conditions, likelihood, and impact. Page 17-21.
* **Describe different risk assessment approaches**
* Focus on the concepts, page 24-25.
* **Conduct the risk assessment based on the risk management process**
* Page 33-48 Risk Assessment Guide
* Describe the major steps in the risk assessment process
* Know the key activities involved in each step
* Conduct risk assessment following the prescribe process. There are many useful tables in the appendix of the Risk Assessment Guide. For example, Table E-2 lists many different examples of adversarial threat events. You don’t need to remember those tables. But should know that they are exist and be able to refer to them when conducting risk assessment. There is an assignment for conducting simplified risk assessment.