Course Competency

MAN 3731 Assessing and Managing Project Risk

Course Description

This course explores project uncertainty, and how to manage risk to keep the project on track and meet project goals. Project risk management is a vital part of all projects, which requires a purposeful strategy to avoid any setbacks. In this course there will be an examination of what the risk management process involves through the identification, assessment, and response to project risks. (3 hr. lecture) Prerequisite: None

Course Competency	Learning Outcomes
Competency 1: The student will learn the basics of the risk management process by:	1. Critical thinking 2. Information Literacy
1. Defining risk management - process to identify possibilities, measure risks and create strategies to manage risks before they occur. Allowing business owners to regulate procedures to avoid these risks and minimize their negative impacts and overcome them. 2. nderstanding why a business must make a realistic evaluation of potential risks and plan properly. 3. Discussing the stages of risk management 4. Identifying risks - list as many possible risks as possible using; Survey, Interview, Brainstorming, Information, Etc 5. Analyzing risks - look at the possibility of the risk occurring, and the amount of loss incurred. Find out how to minimize the potential risks. The possibility of risk occurring is subjective and based more on experience and intuition. Determine if risk can be measured. Prioritize risk. 6. Risk management by - Risk avoidance, reduction, transfer, difference, and retention. 7. Application of risk management -	

implementation of planned risk management. 8. Conducting evaluation - evaluate the risk management that has been implemented from the starting stage to implementing risk, find out the effectiveness of a strategy in responding to the risks that occur.	
Competency 2: The student will identify risk, in terms of a project by:	1. Information Literacy
1. Defining strategic risk management - a mature and comprehensive business plan can change quickly. Strategic risk management helps decision making when unexpected conditions affect the business planning. Unfavorable conditions include changes in technology, the emergence of new competitors, rising prices of raw materials, etc. 2. Defining operational risk management - internal factors within the company can be the source of risk. Resulting from unexpected failures in the company's daily operations including employee error, server damage, power outages, etc. Operational risks can affect the overall operations of the company. 3. Defining financial risk management - impact on the company's financials due to additional costs or loss of income. Financial risk refers to money that flows in and out. Financial risks can include: Market risk, Credit risk, Liquidity, Operational, and Legal risk. 4. Defining management of reputation risk - the company's reputation has been damaged and no longer trusted by customers, resulting in a loss of customers. Negative effects on the morale of employees. 5. efining compliance risk management - business compliance with all applicable regulations and laws. Problems occur with regulation or legislation changes	

Competency 3: The student will demonstrate how to assess risk, with respect to the likelihood of a given risk and its potential impact on the success of a project by:	1. Numbers / Data 2. Critical thinking 3. Information Literacy
1. Demonstrate the methods of risk assessment which can help identify risk, assess the risk appropriately and help in the risk management, using the following methods: 2. hat-if analysis 3. ault tree analysis (FTA) 4. ailure mode event analysis (FMEA) 5. azard operability analysis (HAZOP) 6. ncident BowTie 7. vent Tree a)What-if analysis - identify hazards, hazardous situations, or specific event sequences that could produce undesirable consequences. b)Fault tree analysis (FTA) - deductive procedure used to determine the various combinations of hardware and software failures and human errors that could cause undesired events (referred to as top events) at the system level. c)Failure mode event analysis (FMEA) - step-by-step approach for identifying all possible failures in a design, a manufacturing or assembly process, or a product or service. d)Hazard operability Analysis (HAZOP) - used as a technique for identifying potential hazards in a system and identifying operability problems likely to lead to nonconforming products. e)Incident BowTie - combines two analysis methods; BowTie risk analysis and Tripod incident analysis. f)Event Tree analysis - method is a bottom-up inductive method. It makes use of general information to analyze specific information.	
Competency 4: The student will demonstrate how to plan risk responses to reduce or prevent risks to a project by:	1. Communication 2. Information Literacy

1. Understanding the parts of a risk response – includes Cost effect relative to the significance of the risk, scale to the magnitude of the risk, project stakeholder agreement and is it achievable and realistic.
2. Defining risk register - developed prior to the development of a risk response plan. It is an itemized list of the important risk events that could affect the project. Risks are prioritized based on their two underlying elements, probability and impact.
3. Reviewing a risk response plan example – the steps include: 1) Determine trigger condition, 2) Decide which risk response type to use, 3) Develop the response plan
4. Learning how to communicate risk - it is important that the risk register, and response plans be communicated to the applicable stakeholders. Plans should be communicated to the appropriate stakeholders in advance, i.e. during project planning.

Updated: FALL TERM 2021