

Republic of Yemen  
Ministry of Higher Education & Scientific  
Research  
University: 21 September University  
for Medical & Applied Sciences



الجمهورية اليمنية  
وزارة التعليم العالي والبحث العلمي  
جامعة 21 سبتمبر للعلوم الطبية و  
التطبيقية

## Republic of Yemen

Ministry of Higher Education & Scientific Research

Council of Academic Accreditation & Quality Assurance of Higher  
Education(CAQA)

21 September University for Medical and  
Applied Sciences



Faculty of Engineering and Computer

Department of Information Technology

Program of Information Technology

Course Specification of

Project 2

Course Code. (07.01. 726)

2024



T4: This Template is Developed and Approved by CAQA-Yemen, 2023

Prepared by:

Dr. Malek Algabri

Reviewed by:

Dr. -----

Head of the Department:

Quality Unit:

Dean

## I. General Information:

|     |  |  |                      |                   |                         |          |
|-----|--|--|----------------------|-------------------|-------------------------|----------|
| 1.  | Course Title:                                    | Project 2                                  |                      |                   |                         |          |
| 2.  | Course Code:                                     | 07.01. 726                                 |                      |                   |                         |          |
| 3.  | Credit Hours:                                    | Credit Hours                               | Theory Contact Hours |                   | Practical Contact Hours |          |
|     |  |  | Lecture              | Tutorial /Seminar | Lab                     | Clinical |
|     |  | 3  | 3                    | --                | --                      | --       |
| 4.  | Level/ Semester at which this Course is offered: | Level 4/ Semester 2                        |                      |                   |                         |          |
| 5.  | Pre –Requisite (if any):                         | 07.01. 725                                 |                      |                   |                         |          |
| 6.  | Co –Requisite (if any):                          | non  |                      |                   |                         |          |
| 7.  | Program (s) in which the Course is Offered:      | Bachelor of Medical Information Technology |                      |                   |                         |          |
| 8.  | Language of Teaching the Course:                 | English                                    |                      |                   |                         |          |
| 9.  | Location of Teaching the Course:                 | Faculty of Medical Technology              |                      |                   |                         |          |
| 10. | Prepared by:                                     | Dr. Malek Algabri                          |                      |                   |                         |          |
| 11  | Date and Number of Approval by Council:          |  |                      |                   |                         |          |

## II. Course Description:

This course aims to lever student's ability to think critically and to have hands-on experience in handling a range of soft issues in selecting project teams and in managing complexity and uncertainty in business projects in order to deliver benefits for the client. This course covers advanced techniques of Medical Information Technology project management and control including managing off-shore projects and large projects, budgeting and sharing resources across multiple projects, responding to changes in plan and technologies and understanding when to shut a project down. The course also discusses cost estimation, project audit and project reporting. To achieve the course, aim different teaching strategies will be applied such as lectures, case study, problem

solving and so on. The prerequisite for this course is that students should have basic Knowledge of project management.

| III. Course Intended Learning Outcomes (CILOs) :<br>Upon successful completion of the course,<br>students will be able to: |  | Referenced PILOs |    |  |
|--|--|------------------|----|--|
| <b>A. Knowledge and Understanding:</b>   |  | I, P or M/A      |    |  |
| a1   | Explain the advanced concepts of Technology and their application in solving problems related to Medical Information Technology fields.  |                  | A1 | Demonstrate an understanding of appropriate models, theories, mathematical foundations, and techniques related to Health Information Technology discipline.                        |
| a2   | Describe in-depth the technologies, methodologies, criteria and tools that can be employed in the development, implementation, evaluation, and management of Medical Information Technology systems. |                  | A4 | Demonstrate a sound understanding the computing concept related to analysis, design, implementation, and evaluation of Health information system                                   |
|  |  |                  | A3 |  |
| <b>B. Intellectual Skills:</b>   |  |                  |    |  |
| b1   | Analyze and evaluate current methods and tools with linking different knowledge to solve Medical Information Technology problems.  |                  | B1 | Critically analyze complex computing problems and propose appropriate information technology-based solutions and integrate them effectively into the uses and organization Health. |
| b2   | Assess risks in the professional practice of information technology.   |                  | B3 | Explore variety of challenges and problems related to Health Information Technology to select the  |

|   |  |  |    |  |
|---|--|--|----|--|
|   |  |  |    | optimal solution.  |
|   |  |  | B3 |  |
| <b>C. Professional and Practical Skills:</b>                |  |  |    |  |
| c1  | Apply the advanced computing knowledge as appropriate to address Information Technology needs.   |  | C1 | Employ effectively the concepts, principles of computational tools, techniques used for the construction and documentation of Health Information of varying complexity                 |
| c2  | Implement, and evaluate an Medical Information Technology solutions as appropriate to legal, ethical, professional Information Technology practices. |  | C3 | Use systematic approaches to select, develop, apply integrates, and administrate secure computing technologies to accomplish user and Health goals.                                    |
|   |  |  | C3 |  |
| <b>D. Transferable Skills:</b>                              |  |  |    |  |
| d1  | Evaluate and develop their skills in research, independent study and self-management, and prepare themselves for lifelong learning.                  |  | D1 | Function effectively as an individual, as a member, or leader of a team engaged in activities appropriate to the Health Information Technology discipline to accomplish a common goal. |
| d2  | Work in a team and lead teams in different professional tracks and communicate efficiently by different means.                                       |  | D2 | Commit to professional ethics, responsibilities, and norms of professional IT practices.   |
|   |  |  | D3 |  |
| <b>I= Introduced, P=Practiced or M/A= Mastered/Advanced</b> |  |  |    |  |

| <b>(A) Alignment of Course Intended Learning Outcomes (Knowledge and Understanding) to Teaching Strategies and Assessment Methods:</b>       |  |   |  |
|--|--|---|--|
|  | <b>Course Intended Learning Outcomes</b>   | <b>Teaching Strategies</b>  | <b>Assessment Strategies</b>   |
| a1   | Explain the advanced concepts of Technology and their application in solving problems related to Medical Information Technology fields.  | <ul style="list-style-type: none"> <li>▪ Lectures, Interactive class</li> <li>▪ discussions, Tutorials.</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Written exams, assignment</li> <li>▪ work, quizzes, submission of</li> <li>▪ reports</li> </ul> |
| a2   | Describe in-depth the technologies, methodologies, criteria and tools that can be employed in the development, implementation, evaluation, and management of Medical Information Technology systems. |   |  |
| a3   |  | ▪   | ▪  |
| <b>(B) Alignment of Course Intended Learning Outcomes (Intellectual Skills) to Teaching Strategies and Assessment Methods:</b>               |  |   |  |
|  | <b>Course Intended Learning Outcomes</b>   | <b>Teaching Strategies</b>  | <b>Assessment Strategies</b>   |
| b1   | Analyze and evaluate current methods and tools with linking different knowledge to solve Medical Information Technology problems.  | <ul style="list-style-type: none"> <li>▪ Lectures, Tutorial, Interactive class</li> <li>▪ discussions, and group work,</li> <li>▪ presentation</li> </ul> | <ul style="list-style-type: none"> <li>▪ Written exams, Project, Case</li> <li>▪ studies and assignment work.</li> </ul>                 |
| b2   | Assess risks in the professional practice of information technology.   |   |  |
|  | ...  | ▪   | ▪  |
| <b>(C) Alignment of Course Intended Learning Outcomes (Professional and Practical Skills) to Teaching Strategies and Assessment Methods:</b> |  |   |  |

|  | Course Intended Learning Outcomes  | Teaching Strategies  | Assessment Strategies   |
|--|--|--|---|
| c1   | Apply the advanced computing knowledge as appropriate to address Information Technology needs.   | <ul style="list-style-type: none"> <li>▪ Short lectures, case study, Laboratory</li> <li>▪ experiments, Project, and group work,</li> <li>▪ Field training, Drawing sessions</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Written exams, quizzes, Practical</li> <li>▪ exam assignment and report</li> <li>▪ submission</li> </ul> |
| c2   | Implement, and evaluate an Medical Information Technology solutions as appropriate to legal, ethical, professional Information Technology practices. |  |   |
|  | ...  | ▪  | ▪   |
|  |  | ▪  | ▪   |
| <b>(D) Alignment of Course Intended Learning Outcomes (Transferable Skills) to Teaching Strategies and Assessment Methods:</b> |  |  |   |
|  | Course Intended Learning Outcomes  | Teaching Strategies  | Assessment Strategies   |
| d1   | Evaluate and develop their skills in research, independent study and self-management, and prepare themselves for lifelong learning.                  | <ul style="list-style-type: none"> <li>▪ Group work, Self-study, Interactive</li> <li>▪ class discussions, Tutorials, Seminar/</li> <li>▪ project/presentation, Laboratory</li> <li>▪ experiments, Project, and Art Gallery</li> </ul> | <ul style="list-style-type: none"> <li>▪ Project presentation, Laboratory</li> <li>▪ exam, Report/Project</li> </ul>                              |
| d2   | Work in a team and lead teams in different professional tracks and communicate efficiently by different means.                                       |  |   |
|  | ...  | ▪  | ▪   |

#### IV. Course Contents:

##### A. Theoretical Aspect:

| No. | Units/Topics List                                     | Sub Topics List   | Number of Weeks | Contact Hours | Learning Outcomes (CILOs) |
|-----|---|---|-----------------|---------------|---------------------------|
| 1   | The Nature of Information Technology Projects         | <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ What Is a Project?</li> <li>▪ What Is Project Management?</li> </ul> <p>The State of IT Project Management</p>   | 1               | 3             | a1                        |
| 2   | Project Methodologies and Processes                   | <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ The Project Life Cycle</li> <li>▪ The Project Management Body of Knowledge (PMBOK®)</li> <li>▪ Project Processes</li> <li>▪ Project Management Process Groups</li> <li>▪ The Systems Development Life Cycle (SDLC)</li> <li>▪ Learning Cycles and Lessons Learned</li> </ul> <p>Case Studies</p>   | 1               | 3             | a1,a3,b3,d1               |
| 3   | Measurable Organizational Value and the Business Case | <ul style="list-style-type: none"> <li>▪ Measurable Organizational Value (MOV)</li> <li>▪ The Business Case</li> <li>▪ Project Selection and Approval</li> </ul> <p>Case Studies</p>  | 1               | 3             | a2,b4,d2                  |
| 4   | Project Planning: The Project Infrastructure          | <ul style="list-style-type: none"> <li>▪ Project Governance</li> <li>▪ The Project Team</li> <li>▪ The Project Manager</li> <li>▪ The Organization and Project Planning</li> <li>▪ Procurement Planning</li> <li>▪ Measurable Organizational Value (MOV)</li> <li>▪ Quality Standards</li> <li>▪ Resources</li> <li>▪ Assumptions and Risks</li> <li>▪ Project Administration</li> </ul> <p>Acceptance and Approval</p> | 1               | 3             | a2,b1,b5,c2,d1,d2         |
| 5   | Project Planning: Scope and the Work Breakdown        | <ul style="list-style-type: none"> <li>▪ The Triple Constraint</li> <li>▪ Defining and Managing Project Scope</li> </ul>  | 1               | 3             | a2,b1,b4,c2,d1            |

| No. | Units/Topics List                               | Sub Topics List  | Number of Weeks | Contact Hours | Learning Outcomes (CILOs) |
|-----|---|--|-----------------|---------------|---------------------------|
|     | Structure                                       | <ul style="list-style-type: none"> <li>▪ The Work Breakdown Structure (WBS)</li> <li>▪ Work Packages</li> <li>▪ Project Estimation</li> <li>– Poker Planning</li> </ul>  |                 |               |                           |
| 6   | Project Planning: The Schedule and Budget       | <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Developing the Project Schedule</li> <li>▪ Project Management Software Tools</li> <li>▪ Developing the Project Budget</li> <li>▪ The Baseline Plan</li> <li>▪ The Kick-Off Meeting</li> </ul> <p>Case Studies</p>                     | 1               | 3             | a2,b1,b4,c3,d1            |
| 7   | Mid-Term Exam                                   |  | 1               | 1.5           | a1,a2,a3,b1,b2,b5,c1,d1   |
| 8   | Managing Project Risk                           | <ul style="list-style-type: none"> <li>▪ Create a Risk Plan</li> <li>▪ Identify Risks</li> <li>▪ Analyze Risk</li> <li>▪ Develop Risk Strategies</li> <li>▪ Monitor and Control Risk</li> <li>▪ Respond and Evaluate Response to Risk</li> </ul> <p>Case Studies</p>                                   | 1               | 3             | a1,a2,b2,c1,c2,d1,d2      |
| 9   | Managing Project Stakeholders and Communication | <ul style="list-style-type: none"> <li>▪ Stakeholder Analysis</li> <li>▪ Monitoring and Controlling the Project</li> <li>▪ The Project Communications Plan</li> <li>▪ Project Metrics</li> <li>▪ Reporting Performance and Progress</li> <li>▪ Information Distribution</li> </ul> <p>Case Studies</p> | 1               | 2             | a2,a3,b1,b3,c1,d1,d2      |
| 10  | Managing Project Quality & Team Leading         | <ul style="list-style-type: none"> <li>▪ Quality Philosophies</li> <li>▪ Process Capability and Maturity</li> <li>▪ The Project Quality Management Plan</li> </ul>   | 1               | 3             | a3,b3,b5,c3,d1,d2         |

| No.                                     | Units/Topics List  | Sub Topics List   | Number of Weeks | Contact Hours | Learning Outcomes (CILOs)                      |
|---|--|---|-----------------|---------------|--|
|   |  | <ul style="list-style-type: none"> <li>▪ Leading the Project Team</li> <li>▪ Project Leadership</li> <li>▪ Some Modern Approaches to Leadership</li> <li>▪ Leadership Styles</li> <li>▪ Emotional Intelligence</li> <li>▪ Ethics and Leadership</li> <li>▪ Teams and Leadership</li> <li>▪ Multicultural Projects</li> </ul> Case Studies |                 |               |  |
| 11                                      | Managing Organizational Change, Resistance, and Conflict | <ul style="list-style-type: none"> <li>▪ The Nature of Change</li> <li>▪ The Change Management Plan</li> <li>▪ Dealing with Resistance And Conflict</li> </ul> Case Studies   | 1               | 1.5           | a3,<br>b2,b3,c1,<br>d1,d2                      |
| 12                                      | Project Completion                                       | <ul style="list-style-type: none"> <li>▪ Product Release or System Implementation</li> <li>▪ Project Sponsor Acceptance</li> <li>▪ The Final Project Report</li> <li>▪ The Final Meeting and Presentation</li> <li>▪ Administrative Closure</li> <li>▪ Project Evaluation</li> </ul> Case Studies   | 1               | 1.5           | a2,<br>b5,c1,c3,<br>d1,d2                      |
| 13                                      | Final Theoretical Exam                                   | Final Exam  | 1               | 1.5           | a1,a2,<br>a1,c1,c2,<br>,<br>b1,b2,c1,<br>d1,d2 |
| Number of Weeks /and Units Per Semester |  |   | 16              | 32            |  |

## VII. Assignments:

| No.   | Assignments   | Week Due | Mark | Aligned CILOs (symbols)         |
|-------|---|----------|------|---------------------------------|
| 1     | Assignment 1: Discussions                               | 1-10     | 5    | a1,a2, a1,c1,c2, b1,b2,c1,d1,d2 |
| 2     | Assignment 2: Exercises and Home Works, Problem Solving | 4, 8, 12 | 10   | a1,a2, b1,b2, c1,c2,c3, d1,d2   |
| 3     | Assignment 3: Technical Report and Presentation.        | 14, 15   | 5    | a1,a2, b1,b2, c1,c2,c3, d1,d2   |
| Total |   |          |      |                                 |

### VIII. Schedule of Assessment Tasks for Students During the Semester:

| No.   | Assessment Method  | Week Due | Mark | Proportion of Final Assessment | Aligned Course Learning Outcomes |
|-------|--|----------|------|--------------------------------|----------------------------------|
| 1     | Assignments  | 1-12     | 20   |                                | a1,a2, a1,c1,c2, b1,b2,c1,d1,d2  |
| 2     | Mid-Term Theoretical Exam  | 7-8      | 20   |                                | a1,a2,b1,b2,d1,d2                |
| 3     | Final Practical Exam including Project Presentation & Evaluation | 14       | 20   |                                | a1,a2, a1,c1,c2, b1,b2,c1,d1,d2  |
| 4     | Final Theoretical Exam   | 16       | 40   |                                | a1,a2, a1,c1,c2, b1,b2,c1,d1,d2  |
| Total |  |          | 100  |                                |                                  |

### IX. Learning Resources:

- *Written in the following order:* Author, Year of publication, Title, Edition, Place of publication, Publisher.

#### 1- Required Textbook(s) (maximum two):

- 1- Jack T. Marchewka, 2016, Information Technology Project Management: Providing Measurable Organizational Value, 5th Edition, Wiley, USA.
- 2- Kathy Schwalbe, 2015, Information Technology Project Management, 8th Edition, Course Technology,

### 2- Essential References:

- 1- Stanley E. Portny, "Project Management All-in-One For Dummies 1st Edition", For Dummies; 1st edition (September 25, 2020)
- 2- Chemuturi, Murali. – 2013 – Mastering IT Project Management: Best Practices, Tools and Techniques, The, J. Ross Publishing.
- 3- Jack T. Marchewka, 2016, Information Technology Project Management: Providing Measurable Organizational Value, 5th Edition, Wiley, USA.
- 4- Kathy Schwalbe, 2015, Information Technology Project Management, 8th Edition, Course Technology,

### 3- Electronic Materials and Web Sites etc.:

#### Websites:

- 1- <https://www.jstor.org/stable/j.ctt1d2dpw4>
- 2- <https://alison.com/course/fundamentals-of-project-management-revised-2017>
- 3- <https://www.pmi.org/>
- 4- <https://www.coursera.org/learn/project-management-foundations>
- 5- <https://fi.co/insight/the-ultimate-guide-to-project-management-fundamentals>
- 6- <https://projectmanagementacademy.net/pm-fundamentals-young-professional-course>
- 7- <https://blog.udemy.com/project-management-fundamentals/>
- 8- [https://emeritus.org/in/learn/fundamentals-to-a-successful-project-management/Guide-to-Protecting-the-Confidentiality-of-Personally-Identifiable-Information-\(PII\).National-Institute-of-Standards-and-Technology,US-Department-of-Commerce-Special-Publication-800-122.http://csrc.nist.gov/publications/nistpubs/800-122/sp800-122.pdf](https://emeritus.org/in/learn/fundamentals-to-a-successful-project-management/Guide-to-Protecting-the-Confidentiality-of-Personally-Identifiable-Information-(PII).National-Institute-of-Standards-and-Technology,US-Department-of-Commerce-Special-Publication-800-122.http://csrc.nist.gov/publications/nistpubs/800-122/sp800-122.pdf)
- 9- <http://donottrack.us/>

## X. Course Policies: (Based on the Uniform Students' By law (2007))

|          |   |
|----------|---|
| <b>1</b> | <b>Class Attendance:</b><br>Class Attendance is mandatory. A student is considered absent and shall be banned from taking the final exam if his/her absence exceeds 25% of total classes. |
| <b>2</b> | <b>Tardiness:</b><br>A student will be considered late if he/she is not in class after 10 minutes of the start time of class.   |
| <b>3</b> | <b>Exam Attendance/Punctuality:</b>   |



|   |  |
|---|--|
|   | No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.   |
| 4 | <b>Assignments &amp; Projects:</b><br>Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.   |
| 5 | <b>Cheating:</b><br>Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.  |
| 6 | <b>Forgery and Impersonation:</b><br>Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply. |
| 7 | <b>Other policies:</b><br>The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.                                     |



Faculty of Medical Technology  
Department of Medical Information Technology  
Program of Medical Information Technology  
Course Specification of  
Project 2  
Course Code. (07.01. 726)

| I. Information about Faculty Member Responsible for the Course: |       |              |     |     |     |     |     |
|---|-------|--------------|-----|-----|-----|-----|-----|
| Name of Faculty Member:   |       | Office Hours |     |     |     |     |     |
| Location & Telephone No.:                                       | ---   |              |     |     |     |     |     |
| E-mail:   | --@-- | SAT          | SUN | MON | TUE | WED | THU |

2024/2025

## II. Course Identification and General Information:

|  |  |                      |                  |                         |          |
|--|--|----------------------|------------------|-------------------------|----------|
| Course Title:                                    | Project 2                                  |                      |                  |                         |          |
| Course Code:                                     | 07.01. 726                                 |                      |                  |                         |          |
| Credit Hours:                                    | Credit Hours                               | Theory Contact Hours |                  | Practical Contact Hours | Clinical |
|  |  | Lecture              | Tutorial/Seminar | Lab                     |          |
|  |  | 3                    | 3                | --                      |          |
| Level/ Semester at which this Course is offered: | Level 4/ Semester 2                        |                      |                  |                         |          |
| Pre –Requisite (if any):                         | 07.01. 725                                 |                      |                  |                         |          |
| Co –Requisite (if any):                          | non  |                      |                  |                         |          |
| Program (s) in which the Course is Offered:      | Bachelor of Medical Information Technology |                      |                  |                         |          |
| Language of Teaching the Course:                 | English                                    |                      |                  |                         |          |
| Location of Teaching the Course:                 | Faculty of Medical Technology              |                      |                  |                         |          |
| Prepared by:                                     | Dr. Malek Algabri                          |                      |                  |                         |          |
| 11   | Date and Number of Approval by Council:    |                      |                  |                         |          |

## III. Course Description:

This course aims to lever student's ability to think critically and to have hands-on experience in handling a range of soft issues in selecting project teams and in managing complexity and uncertainty in business projects in order to deliver benefits for the client. This course covers advanced techniques of Medical Information Technology project

management and control including managing off-shore projects and large projects, budgeting and sharing resources across multiple projects, responding to changes in plan and technologies and understanding when to shut a project down. The course also discusses cost estimation, project audit and project reporting. To achieve the course, aim different teaching strategies will be applied such as lectures, case study, problem solving and so on. The prerequisite for this course is that students should have basic Knowledge of project management.

#### IV. Course Intended Learning Outcomes (CILOs) :

Upon successful completion of the Course, student will be able to:

|    |  |
|----|--|
|    | <b>A. Knowledge and Understanding:</b>   |
| a1 | Explain the advanced concepts of Technology and their application in solving problems related to Medical Information Technology fields.  |
| a2 | Describe in-depth the technologies, methodologies, criteria and tools that can be employed in the development, implementation, evaluation, and management of Medical Information Technology systems. |
|    |  |
|    | <b>B. Intellectual Skills:</b>   |
| b1 | Analyze <b>and evaluate current</b> methods and tools with linking different knowledge to solve Medical Information Technology problems.   |
| b2 | Assess risks in the professional practice of information technology.   |
|    |  |
|    | <b>C. Professional and Practical Skills:</b>   |
| c1 | Apply the advanced computing knowledge as appropriate to address Information Technology needs.   |
| c2 | <b>Implement, and evaluate an Medical Information</b> Technology solutions as appropriate to legal, ethical, professional Information Technology practices.  |
|    |  |
|    | <b>D. Transferable Skills:</b>   |
| d1 | Evaluate and develop their skills in research, independent study and self-management, and prepare themselves for lifelong learning.  |
| d2 | <b>Work in a team</b> and lead teams in different professional tracks and communicate  |

efficiently by different means.

I= Introduced, P=Practiced or M/A= Mastered/Advanced

## V. Course Contents:

### A. Theoretical Aspect:

| No. | Units/Topics List                                     | Sub Topics List   | Number of Weeks | Contact Hours |
|-----|---|---|-----------------|---------------|
| 1   | The Nature of Information Technology Projects         | <ul style="list-style-type: none"> <li>– Introduction</li> <li>– What Is a Project?</li> <li>– What Is Project Management?</li> <li>– The State of IT Project Management</li> </ul>   | 1               | 3             |
| 2   | Project Methodologies and Processes                   | <ul style="list-style-type: none"> <li>– Introduction</li> <li>– The Project Life Cycle</li> <li>– The Project Management Body of Knowledge (PMBOK®)</li> <li>– Project Processes</li> <li>– Project Management Process Groups</li> <li>– The Systems Development Life Cycle (SDLC)</li> <li>– Learning Cycles and Lessons Learned</li> <li>– Case Studies</li> </ul> | 1               | 3             |
| 3   | Measurable Organizational Value and the Business Case | <ul style="list-style-type: none"> <li>– Measurable Organizational Value (MOV)</li> <li>– The Business Case</li> <li>– Project Selection and Approval</li> <li>– Case Studies</li> </ul>  | 1               | 3             |
| 4   | Project Planning: The Project Infrastructure          | <ul style="list-style-type: none"> <li>– Project Governance</li> <li>– The Project Team</li> <li>– The Project Manager</li> <li>– The Organization and Project Planning</li> <li>– Procurement Planning</li> <li>– Measurable Organizational Value (MOV)</li> <li>– Quality Standards</li> </ul>  | 1               | 3             |

| No. | Units/Topics List   | Sub Topics List  | Number of Weeks | Contact Hours |
|-----|---|--|-----------------|---------------|
|     |   | <ul style="list-style-type: none"> <li>– Resources</li> <li>– Assumptions and Risks</li> <li>– Project Administration</li> <li>– Acceptance and Approval</li> </ul>  |                 |               |
| 5   | <b>Project Planning: Scope and the Work Breakdown Structure</b> | <ul style="list-style-type: none"> <li>– The Triple Constraint</li> <li>– Defining and Managing Project Scope</li> <li>– The Work Breakdown Structure (WBS)</li> <li>– Work Packages</li> <li>– Project Estimation</li> <li>– Poker Planning</li> </ul>                                | 1               | 3             |
| 6   | <b>Project Planning: The Schedule and Budget</b>                | <ul style="list-style-type: none"> <li>– Introduction</li> <li>– Developing the Project Schedule</li> <li>– Project Management Software Tools</li> <li>– Developing the Project Budget</li> <li>– The Baseline Plan</li> <li>– The Kick-Off Meeting</li> <li>– Case Studies</li> </ul> | 1               | 3             |
| 7   | <b>Mid-Term Exam</b>  | –  | 1               | 1.5           |
| 8   | <b>Managing Project Risk</b>                                    | <ul style="list-style-type: none"> <li>– Create a Risk Plan</li> <li>– Identify Risks</li> <li>– Analyze Risk</li> <li>– Develop Risk Strategies</li> <li>– Monitor and Control Risk</li> <li>– Respond and Evaluate Response to Risk</li> <li>– Case Studies</li> </ul>               | 1               | 3             |
| 9   | <b>Managing Project Stakeholders and Communication</b>          | <ul style="list-style-type: none"> <li>– Stakeholder Analysis</li> <li>– Monitoring and Controlling the Project</li> <li>– The Project Communications Plan</li> <li>– Project Metrics</li> <li>– Reporting Performance and Progress</li> </ul>   | 1               | 2             |

| No.  | Units/Topics List  | Sub Topics List  | Number of Weeks | Contact Hours |
|--|--|--|-----------------|---------------|
|  |  | <ul style="list-style-type: none"> <li>– Information Distribution</li> <li>– Case Studies</li> </ul>   |                 |               |
| 10   | Managing Project Quality & Team Leading                  | <ul style="list-style-type: none"> <li>– Quality Philosophies</li> <li>– Process Capability and Maturity</li> <li>– The Project Quality Management Plan</li> <li>– Leading the Project Team</li> <li>– Project Leadership</li> <li>– Some Modern Approaches to Leadership</li> <li>– Leadership Styles</li> <li>– Emotional Intelligence</li> <li>– Ethics and Leadership</li> <li>– Teams and Leadership</li> <li>– Multicultural Projects</li> <li>– Case Studies</li> </ul> | 1               | 3             |
| 11   | Managing Organizational Change, Resistance, and Conflict | <ul style="list-style-type: none"> <li>– The Nature of Change</li> <li>– The Change Management Plan</li> <li>– Dealing with Resistance And Conflict</li> <li>– Case Studies</li> </ul>   | 1               | 1.5           |
| 12   | Project Completion                                       | <ul style="list-style-type: none"> <li>– Product Release or System Implementation</li> <li>– Project Sponsor Acceptance</li> <li>– The Final Project Report</li> <li>– The Final Meeting and Presentation</li> <li>– Administrative Closure</li> <li>– Project Evaluation</li> <li>– Case Studies</li> </ul>   | 1               | 1.5           |
| 13   | Final Theoretical Exam                                   | Final Exam   | 1               | 1.5           |
| <b>Number of Weeks /and Units Per Semester</b> |  |  | <b>16</b>       | <b>32</b>     |

| No. | Units/Topics List  | Sub Topics List   | Number of Weeks | Contact Hours |
|-----|--|---|-----------------|---------------|
| 1   | The Nature of Information Technology Projects            | <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ What Is a Project?</li> <li>▪ What Is Project Management?</li> </ul> <p>The State of IT Project Management</p>   | 1               | 3             |
| 2   | Project Methodologies and Processes                      | <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ The Project Life Cycle</li> <li>▪ The Project Management Body of Knowledge (PMBOK®)</li> <li>▪ Project Processes</li> <li>▪ Project Management Process Groups</li> <li>▪ The Systems Development Life Cycle (SDLC)</li> <li>▪ Learning Cycles and Lessons Learned</li> </ul> <p>Case Studies</p>   | 1               | 3             |
| 3   | Measurable Organizational Value and the Business Case    | <ul style="list-style-type: none"> <li>▪ Measurable Organizational Value (MOV)</li> <li>▪ The Business Case</li> <li>▪ Project Selection and Approval</li> </ul> <p>Case Studies</p>  | 1               | 3             |
| 4   | Project Planning: The Project Infrastructure             | <ul style="list-style-type: none"> <li>▪ Project Governance</li> <li>▪ The Project Team</li> <li>▪ The Project Manager</li> <li>▪ The Organization and Project Planning</li> <li>▪ Procurement Planning</li> <li>▪ Measurable Organizational Value (MOV)</li> <li>▪ Quality Standards</li> <li>▪ Resources</li> <li>▪ Assumptions and Risks</li> <li>▪ Project Administration</li> </ul> <p>Acceptance and Approval</p> | 1               | 3             |
| 5   | Project Planning: Scope and the Work Breakdown Structure | <ul style="list-style-type: none"> <li>▪ The Triple Constraint</li> <li>▪ Defining and Managing Project Scope</li> <li>▪ The Work Breakdown Structure (WBS)</li> <li>▪ Work Packages</li> <li>▪ Project Estimation</li> </ul> <p>– Poker Planning</p>   | 1               | 3             |
| 6   | Project Planning: The Schedule and                       | <ul style="list-style-type: none"> <li>▪ Introduction</li> <li>▪ Developing the Project Schedule</li> </ul>   | 1               | 3             |

| No. | Units/Topics List  | Sub Topics List  | Number of Weeks | Contact Hours |
|-----|--|--|-----------------|---------------|
|     | Budget   | <ul style="list-style-type: none"> <li>▪ Project Management Software Tools</li> <li>▪ Developing the Project Budget</li> <li>▪ The Baseline Plan</li> <li>▪ The Kick-Off Meeting</li> </ul> <p>Case Studies</p>  |                 |               |
| 7   | Mid-Term Exam  |  | 1               | 1.5           |
| 8   | Managing Project Risk                                    | <ul style="list-style-type: none"> <li>▪ Create a Risk Plan</li> <li>▪ Identify Risks</li> <li>▪ Analyze Risk</li> <li>▪ Develop Risk Strategies</li> <li>▪ Monitor and Control Risk</li> <li>▪ Respond and Evaluate Response to Risk</li> </ul> <p>Case Studies</p>   | 1               | 3             |
| 9   | Managing Project Stakeholders and Communication          | <ul style="list-style-type: none"> <li>▪ Stakeholder Analysis</li> <li>▪ Monitoring and Controlling the Project</li> <li>▪ The Project Communications Plan</li> <li>▪ Project Metrics</li> <li>▪ Reporting Performance and Progress</li> <li>▪ Information Distribution</li> </ul> <p>Case Studies</p>   | 1               | 2             |
| 10  | Managing Project Quality & Team Leading                  | <ul style="list-style-type: none"> <li>▪ Quality Philosophies</li> <li>▪ Process Capability and Maturity</li> <li>▪ The Project Quality Management Plan</li> <li>▪ Leading the Project Team</li> <li>▪ Project Leadership</li> <li>▪ Some Modern Approaches to Leadership</li> <li>▪ Leadership Styles</li> <li>▪ Emotional Intelligence</li> <li>▪ Ethics and Leadership</li> <li>▪ Teams and Leadership</li> <li>▪ Multicultural Projects</li> </ul> <p>Case Studies</p> | 1               | 3             |
| 11  | Managing Organizational Change, Resistance, and Conflict | <ul style="list-style-type: none"> <li>▪ The Nature of Change</li> <li>▪ The Change Management Plan</li> <li>▪ Dealing with Resistance And Conflict</li> </ul> <p>Case Studies</p>   | 1               | 1.5           |

| No.  | Units/Topics List      | Sub Topics List   | Number of Weeks | Contact Hours |
|--|------------------------|---|-----------------|---------------|
| 12   | Project Completion     | <ul style="list-style-type: none"> <li>▪ Product Release or System Implementation</li> <li>▪ Project Sponsor Acceptance</li> <li>▪ The Final Project Report</li> <li>▪ The Final Meeting and Presentation</li> <li>▪ Administrative Closure</li> <li>▪ Project Evaluation</li> </ul> Case Studies | 1               | 1.5           |
| 13   | Final Theoretical Exam | Final Exam  | 1               | 1.5           |
| <b>Number of Weeks /and Units Per Semester</b> |                        |   | <b>16</b>       | <b>32</b>     |

## VI. Teaching Strategies of the Course:

- Lectures
- Tutorials
- Problem solving
- Lab
- Case study
- Small project

## VII. Assessment Methods of the Course:

- Written Tests (Mid and Final Terms Tests)
- Exercises and Homework
- Project/Technical report
- Quizzes
- Presentation.

## VIII. Assignments:

| No.   | Assignments   | Week Due | Mark |
|-------|---|----------|------|
| 1     | Assignment 1: Discussions                               | 1-10     | 5    |
| 2     | Assignment 2: Exercises and Home Works, Problem Solving | 4, 8, 12 | 10   |
| 3     | Assignment 3: Technical Report and Presentation.        | 14, 15   | 5    |
| Total |   |          |      |

### IX. Schedule of Assessment Tasks for Students During the Semester:

| No.   | Assessment Method  | Week Due | Mark | Proportion of Final Assessment |
|-------|--|----------|------|--------------------------------|
| 1     | Assignments  | 1-12     | 20   |                                |
| 2     | Mid-Term Theoretical Exam  | 7-8      | 20   |                                |
| 3     | Final Practical Exam including Project Presentation & Evaluation | 14       | 20   |                                |
| 4     | Final Theoretical Exam   | 16       | 40   |                                |
| Total |  |          | 100  |                                |

| No.   | Assessment Method  | Week Due | Mark | Proportion of Final Assessment |
|-------|--|----------|------|--------------------------------|
| 1     | Assignments  | 1-12     | 20   |                                |
| 2     | Mid-Term Theoretical Exam  | 7-8      | 20   |                                |
| 3     | Final Practical Exam including Project Presentation & Evaluation | 14       | 20   |                                |
| 4     | Final Theoretical Exam   | 16       | 40   |                                |
| Total |  |          | 100  |                                |

### X. Learning Resources:

- Written in the following order: Author, Year of publication, Title, Edition, Place of publication, Publisher.

1- Required Textbook(s) (maximum two):



Jack T. Marchewka, 2016, Information Technology Project Management: Providing Measurable Organizational Value, 5th Edition, Wiley, USA.

Kathy Schwalbe, 2015, Information Technology Project Management, 8th Edition, Course Technology,

## 2- Essential References:

Stanley E. Portny, "Project Management All-in-One For Dummies 1st Edition", For Dummies; 1st edition (September 25, 2020)

Chemuturi, Murali. – 2013 – Mastering IT Project Management: Best Practices, Tools and Techniques, The, J. Ross Publishing.

Jack T. Marchewka, 2016, Information Technology Project Management: Providing Measurable Organizational Value, 5th Edition, Wiley, USA.

Kathy Schwalbe, 2015, Information Technology Project Management, 8th Edition, Course Technology,

## 3- Electronic Materials and Web Sites etc.:

### Websites:

<https://www.jstor.org/stable/j.ctt1d2dpw4>

- <https://alison.com/course/fundamentals-of-project-management-revised-2017>
- <https://www.pmi.org/>
- <https://www.coursera.org/learn/project-management-foundations>
- <https://fi.co/insight/the-ultimate-guide-to-project-management-fundamentals>
- <https://projectmanagementacademy.net/pm-fundamentals-young-professional-course>
- <https://blog.udemy.com/project-management-fundamentals/>
- [https://emeritus.org/in/learn/fundamentals-to-a-successful-project-management/Guide-to-Protecting-the-Confidentiality-of-Personally-Identifiable-Information-\(PII\).National-Institute-of-Standards-and-Technology,US-Department-of-Commerce-Special-Publication-800-122.http://csrc.nist.gov/publications/nistpubs/800-122/sp800-122.pdf](https://emeritus.org/in/learn/fundamentals-to-a-successful-project-management/Guide-to-Protecting-the-Confidentiality-of-Personally-Identifiable-Information-(PII).National-Institute-of-Standards-and-Technology,US-Department-of-Commerce-Special-Publication-800-122.http://csrc.nist.gov/publications/nistpubs/800-122/sp800-122.pdf)
- <http://donottrack.us/>

## XI. Course Policies: (Based on the Uniform Students' Bylaw (2007))

1

### Class Attendance:

Class Attendance is mandatory. A student is considered absent and shall be banned



|   |  |
|---|--|
|   | from taking the final exam if his/her absence exceeds 25% of total classes.  |
| 2 | <b>Tardiness:</b><br>A student will be considered late if he/she is not in class after 10 minutes of the start time of class.  |
| 3 | <b>Exam Attendance/Punctuality:</b><br>No student shall be allowed to the exam hall after 30 minutes of the start time, and shall not leave the hall before half of the exam time has passed.  |
| 4 | <b>Assignments &amp; Projects:</b><br>Assignments and projects must be submitted on time. Students who delay their assignments or projects shall lose the mark allocated for the same.   |
| 5 | <b>Cheating:</b><br>Cheating is an act of fraud that results in the cancelation of the student's exam or assignment. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply.  |
| 6 | <b>Forgery and Impersonation:</b><br>Forgery/Impersonation is an act of fraud that results in the cancelation of the student's exam, assignment or project. If it takes place in a final exam, the penalties stipulated for in the Uniform Students' Bylaw (2007) shall apply. |
| 7 | <b>Other policies:</b><br>The University official regulations in force will be strictly observed and students shall comply with all rules and regulations of the examination set by the Department, Faculty and University Administration.                                     |