

Universidad Autónoma de San Luis Potosí  
College of Engineering  
Mechanical and Electrical Department  
Analytical Program

**A) COURSE**

| COURSE ID | COURSE NAME         |
|-----------|---------------------|
| 5909      | PROJECTS MANAGEMENT |

| Class Hours per Week | Lab hours per week | Complementary practices | CREDITS | COURSE TOTAL HOURS |
|----------------------|--------------------|-------------------------|---------|--------------------|
| 3                    | 0                  | 3                       | 6       | 48                 |

**B) DATOS BÁSICOS DEL CURSO:**

|  | EE<br>(IEA) | ME<br>(IM)  | MME<br>(IMA) | EME<br>(IME) | MTE<br>(IMT) |
|--|-------------|-------------|--------------|--------------|--------------|
| <b>Level:</b>                              | VIII        | VII         | VIII         | VIII         | VIII         |
| <b>Course Type<br/>(Required/Elective)</b> | Mandatory   | Mandatory   | Mandatory    | Mandatory    | Mandatory    |
| <b>Prerequisite<br/>Course:</b>            | 315 CREDITS | 315 CREDITS | 315 CREDITS  | 315 CREDITS  | 315 CREDITS  |
| <b>CACEI<br/>Classification:</b>           | IA          | IA          | IA           | IA           | IA           |

**C) COURSE GENERAL OBJECTIVE**

**At the end of the course, the student will be capable of::**

Students will be able to document a blueprint including the design of a system, component or process, through the application of knowledge, skills, engineering tools and techniques to meet the needs of a company, client or business, considering the aspects economic, environmental and social all based on the methodology for Project Management, also it checks the responsibility that is acquired in the same direction or participation.

**D) TOPICS (CONTENTS AND METHODOLOGY)**

| <b>UNIT 1.- Introduction to Project Management</b> |   | <b>8 hours</b> |
|--|---|----------------|
| <b>Specific Objective</b>                          | At this stage, students will be able to define your project, scope and general and specific objectives as well as select your team to help you meet the needs of customers through tools such as the Quality Function Deployment  |                |
|  | <ol style="list-style-type: none"> <li>1. Mechanisms in selecting the Project</li> <li>2. Definition Project Chart</li> <li>3. Definition of Goals and Objectives</li> <li>4. Definition of the Scope</li> <li>5. Selecting the Team</li> <li>6. Listening the Voice of the Customer</li> </ol> |                |
| <b>Readings and other resources</b>                | Reading. Projects Management (Clifford Gray )<br>Web site: Moodle   |                |

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|                            |   |
|----------------------------|---|
| <b>Teaching Methods</b>    | Presenting the theme<br>Promoting teamwork<br>Supervising activities Monitoring |
| <b>Learning Activities</b> | Readings<br>Searching and gathering information<br>Advances Report              |

| <b>UNIT 2 PLANNING THE PROJECT</b>  |  | <b>8 HOURS</b> |
|-------------------------------------|--|----------------|
| <b>Specific Objective</b>           | At this stage you will define will be able to shape your team and formulate their planning through MS Project.   |                |
|                                     | <ol style="list-style-type: none"> <li>1. Team Work</li> <li>2. Communication with the Customer</li> <li>3. Define methodology for managing conflicts</li> <li>4. Planning of resources (monetary, human, infrastructure, time)</li> </ol> |                |
| <b>Readings and other resources</b> | Reading. Projects Management (Clifford Gray )<br>Web site: Moodle  |                |
| <b>Teaching Methods</b>             | Presentation of the theme<br>Reflective dialogues<br>Promoting teamwork<br>Driving Case Analysis<br>Supervising activities Monitoring  |                |
| <b>Learning Activities</b>          | Using Software. Project Manager<br>Using: MS Project<br>Searching and gathering information<br>Advances Report   |                |

| <b>UNIT 3 EXECUTION OF THE PROJECT</b> |  | <b>16 HOURS</b> |
|--|--|-----------------|
| <b>Specific Objective</b>              | In the implementation phase, students will be able to map their process with action and sequencing of activities perfectly well defined itself as well as be able to quantify the resources and run the initial plan using engineering tools and techniques. |                 |
|  | <ol style="list-style-type: none"> <li>1. Mapping: process, activities programming.</li> <li>2. Resources Planning (money, human resources, infrastructure, time)</li> <li>3. Risk Management</li> <li>4. Execution of the Project</li> </ol>                |                 |
| <b>Readings and other resources</b>    | Reading. Projects Management (Clifford Gray )<br>Web site Moodle   |                 |
| <b>Teaching Methods</b>                | Presentation of the theme<br>Reflective dialogues<br>Promoting teamwork<br>Driving Case Analysis<br>Designing and Presenting cases<br>Supervising activities Monitoring  |                 |

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|                            |  |
|----------------------------|--|
| <b>Learning Activities</b> | Readings<br>Using Software. Project Management<br>Using MS Project<br>Searching and gathering information<br>Advances Report |
|----------------------------|--|

| <b>UNIT 4 Project Control</b>       |  | <b>5 hours</b> |
|-------------------------------------|--|----------------|
| <b>Specific Objective:</b>          | At this stage, students will be able to determine the level of compliance according to the initial project and culminating with the final project and be able to express the lessons learned from the project.   |                |
|                                     | <ol style="list-style-type: none"> <li>1. Monitoring the initial plan and deviations reports</li> <li>2. Generating the corrective actions plan</li> <li>3. Documenting the changes</li> <li>4. Modifying the calendar of activities</li> <li>5. Resources evaluation and the scope of the project.</li> </ol> |                |
| <b>Readings and other resources</b> | Reading. Projects Management (Clifford Gray )<br>Web site Moodle   |                |
| <b>Teaching Methods</b>             | Presentation of the theme<br>Reflective dialogues<br>Promoting teamwork<br>Driving Case Analysis<br>Supervising activities Monitoring  |                |
| <b>Learning Activities</b>          | Readings<br>Using Software. Project Management<br>Using MS Project<br>Searching and gathering information<br>Advances Report   |                |

| <b>UNIT 5 Conclusion of Project</b> |  | <b>11 hours</b> |
|-------------------------------------|--|-----------------|
| <b>Specific Objective:</b>          | At this stage, students will be able to determine the level of compliance according to the initial project and culminating with the final project and be able to express the lessons learned from the project. |                 |
|                                     | <ol style="list-style-type: none"> <li>1. Documenting: Results</li> <li>2. Documentation of learning lessons</li> <li>3. Process reviewing and results</li> <li>4. Final Report</li> </ol>                     |                 |
| <b>Readings and other resources</b> | Reading. Projects Management (Clifford Gray )<br>Web site Moodle   |                 |
| <b>Teaching Methods</b>             | Presentation of the theme<br>Reflective dialogues<br>Promoting teamwork<br>Driving Case Analysis<br>Supervising activities Monitoring  |                 |
| <b>Learning activities</b>          | Using Software. Project Management<br>Using MS Project<br>Searching and gathering information<br>Final Report  |                 |

#### E) TEACHING AND LEARNING STRATEGIES

1. At least 2 activities are required. It is important to measure the achievement of the following Student Outcomes.
  - (c) An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
  - (f) An understanding of professional and ethical responsibility
  - (g) (h) The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
  - (l) Willingness to assume leadership roles and responsibilities.
2. Case Based Learning
3. Collaborative Work Based Learning
4. Problem Based Learning

#### F) EVALUATION AND ASSESSMENT

| EVALUATION:               | SCHEDULE                               | Suggested Form of Evaluation and weighing  | Topics       |
|---------------------------|--|--|--------------|
| 1st Partial Evaluation.   | Session 16                             | Partial examination: 80% ,<br>HW: 20%      | 1,2          |
| 2nd Partial Evaluation    | Session 32                             | Partial examination 80% ,<br>HW: 20%       | 3            |
| Third Partial. Evaluation | Session 48                             | Partial Examination 80% ,<br>HW: 20%       | 4,5          |
| Final Evaluation          |  | 100% (average of the partial examinations) |              |
| Extraordinary examination | Week 17                                | 100% Examination                           | 100%         |
| Exam of title             | According to schedule school secretary | 100% Exam                                  | 100% Program |
| Exam regularization       | According to schedule school secretary | 100% Exam                                  | 100% Program |

#### G) BIBLIOGRAPHY AND COMPUTATIONAL RESOURCES

##### Basic Texts:

1. Clifford Gray, Erik Larson, ADMINISTRACION DE PROYECTOS, Mc Graw Hill, ISBN: 9789701072356, 2009
2. Francisco Rivera Martínez / Gisel Hernández Chávez, ADMINISTRACIÓN DE PROYECTOS, Pearson, ISBN: 9786074426205, 2010
3. Francisco Rivera Martínez / Gisel Hernández Chávez, ADMINISTRACIÓN DE PROYECTOS, Pearson, ISBN: 9786073227919, 2015

**Complementary texts**

1. María Eugenia González De La Cueva, Administración de proyectos optimización de recursos , Trillas ,
2. KLASTORIN , Administración de proyectos, Alfaomega , September 29, 2005
3. Yamal Chamoun , Administración Profesional de Proyectos-La Guía, McGraw Hill ,February 19, 2002
4. A Guide to the Project Management Body of Knowledge , Fifth Edition , Kindle Edition

**Software:**

MS- Project  
Visio