COURSE SYLLABUS

Project Management Program
(PMP Exam)

50 Cragwood Rd, Suite 35
South Plainfield, NJ 07080

Victoria Commons, 613 Hope Rd Building #5,
Eatontown, NJ 07724

130 Clinton Rd,
Fairfield, NJ 07004
**Avtech Institute of Technology Course**

Instructor:
Course Duration:
Date/Time:
Training Location:

**Course Description**

In this course, a case study is threaded throughout the program, and includes activities (development of many of the planning deliverables and more), which enable participants to apply the lessons learned in the units to the projects they are currently on. The curriculum is presented in a dual fashion; the theory of PMI is balanced by the reality of the course instructors’ project management experiences. The dual approach provides the student learner with real examples of the theory of PMI. There are numerous discussion topics throughout, along with exercises to reinforce what participants have learned in the classroom, which translates into opportunities for incorporation of improved practices into your current projects. Quizzes, also called knowledge checks are given after lessons to measure the students’ progress. Additionally, a 100-question practice PMP® certification exam is included. Upon successful completion of this course, you will be granted the 45 PDUs that are required before taking the PMP® certification exam.

This course leads the student to have an understanding of the nine project management knowledge areas and the five process groups, and the ability to distinguish between core and facilitating processes of project management and the differences between qualitative and quantitative risk analysis, and when it is appropriate to use each type of analysis, and also help students to build the ability to manage conflict on the project team and among stakeholders, along with common communications issues and how to resolve them, and the ability to manage conflict on the project team and among stakeholders, along with common communications issues and how to resolve them.

**Qualifying to Take the PMP Exam**

<table>
<thead>
<tr>
<th>Category</th>
<th>General Education</th>
<th>PM Education</th>
<th>PM Experience</th>
<th>Experience</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Bachelors degree</td>
<td>35 contact hours</td>
<td>4,500 hours</td>
<td>Three years within last six years</td>
<td>*200</td>
</tr>
<tr>
<td>Two</td>
<td>High School graduate</td>
<td>35 contact hours</td>
<td>7,500 hours</td>
<td>Five years within last Eight years</td>
<td>*200</td>
</tr>
</tbody>
</table>
Applying to Take the Exam

You must submit an application to PMI. Applications may be submitted by mail or online. When your application is accepted, you will receive a letter authorizing you to make an appointment to take the exam. ONCE YOU RECEIVE YOUR AUTHORIZATION LETTER, YOU MUST PASS THE EXAM WITHIN ONE YEAR!

<table>
<thead>
<tr>
<th>PM Process</th>
<th>Percent of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Initiating</td>
<td>11</td>
</tr>
<tr>
<td>Project Planning</td>
<td>23</td>
</tr>
<tr>
<td>Project Executing</td>
<td>27</td>
</tr>
<tr>
<td>Project Monitoring and Controlling</td>
<td>21</td>
</tr>
<tr>
<td>Project Closing</td>
<td>9</td>
</tr>
<tr>
<td>Professional and Social Responsibility</td>
<td>9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

The % of scored questions on the exam in each process group

Learning Objectives

1.0 Overview of Project Management

1.1. Key project management definitions, concepts and processes

2.0 The PMP Exam

2.1. Overview of the PMP® Certification Exam - Basic information to prepare for taking the PMP® Certification including study resources. Information on the Professional Responsibility section of the exam

2.2. Explain the good reasons to take PMP exam. Identify the techniques learning from this class to resolve the experience problems on project, and decide when you are ready to take the PMP Exam. Be sure you have current Materials for the Exam, understand how the book is organized; review materials and exercises

2.3. Refer to other PMP exam preparation resources offered by RMC. Such as PMBOK Guide-Third Edition

2.4. Study Magic Three and Be in Test-Taking Mode for the PMP Exam. Set up Step-by-Stop Study Plan: Plan A: Using this book as a stand-alone or Plan B: Using this book with the PMP Prep System

2.5. How to use this book in a study group and apply to take the Exam. What are the PMP Exam like and the tricks for taking the PMP Exam Knowing the recurring Themes - PMI-isms to know for the PMP Exam and common project management errors and pitfalls

3.0 Project Management Framework

3.1. Understand what is the Operation Work, the Project Management, a Program, PMP (Project Management Office) or Program Office, the objectives of Exam, Management
by Objectives (MBO), Constraints or “Triple Constraint”, OPM3 (PMI’s organizational maturity mode for project management), Areas of Expertise, Stakeholder, Stakeholder Management

3.2. Organizational Structure can be defined in terms of the project manager’s level of authority, such as functional, projectized, Matrix, Project Management role (Expeditor or Project Coordinator), Life Cycle (Project Life Cycle and Project Management Process)

3.3. Project Management Process
   3.3.1. Rita’s Process Chart: Initiating, Planning, Executing, Monitoring & Controlling, Closing, AND Notes on the Chart
   3.3.2. Rita’s Process Game: The What-Comes-Before Game, how to use the rest of the Chapter
   3.3.3. Initiating Process Group (Inputs to the initiating Process Group), Planning Process Group, Executing Process Group, Monitoring and Controlling Process Group (Scope Verification, Scope Control, Schedule Control, Cost Control, Perform Quality Control, Manage Project Team, Manage Stakeholders, Performance Reporting, Risk Monitoring and Control, and Contract Administration), Closing Process Group, Input and Output

4.0 Integration Management
   4.1. Integration in project management is evident in situations where individual processes interact
   4.2. The processes and activities required to identify, define, combine, unify, and coordinate the various processes and project management activities with the project management process groups
   4.3. Rita’s Process Chart—Integration Management: Where are we in the project management process, the Integration Management Process
   4.6. Direct and Manage Project Execution, Monitor and Control Project Work (Corrective Action, and close project

5.0 Scope Management
   5.1. Defining the scope of a project is one of the most challenging tasks for a project manager.
   5.2. The importance of formally initiating a project and the need for proper documentation of the scope of the project
5.3. The importance of working with stakeholders to ensure that the project meets their expectations

5.4. Rita’s Process Chart—Scope Management (Product Scope, Project Scope, Scope Baseline)

5.5. Project Scope Management Plan, Scope Definition, Stakeholder Analysis, Product Analysis, Project Scope Statement

5.6. Create the Work Breakdown Structure (WBS), A WBS (on a Summary Level) for a Hardware/Software Creation and Installation Project, Scope Verification, and Scope Control

6.0 Time Management

6.1. The importance of determining project activities and breaking them down to the smallest components

6.2. how to manage the project schedule

6.3. Rita’s Process Chart—Time Management, Schedule Management Plan

6.4. Activity Sequencing: Methods to Draw Network Diagrams, Precedence Diagramming Method (PDM) or Activity-on-Node (AON), Arrow Diagramming Method (ADM) or Activity-on Arrow (AOA), Types of Dependencies, Milestones, Leads and Lags, Requested Changes


6.7. Schedule Control: Progress Reporting, 50/50 Rule, 20/80 Rule, 0/100 Rule

7.0 Cost Management

7.1. Ways of estimating and budgeting costs and effective monitoring and control of project costs


7.5. Cost Control (Earned Value Technique), Terms to Know, Formulas and Interpretations to Memorize, Accounting Standards, Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, Benefit Cost Ratio, Opportunity Cost, Sunk Costs, Law of Diminishing Returns, Working Capital, Project Selection Methods, and Depreciation
8.0 Quality Management

8.1. The importance of developing and utilizing a quality plan and methods of managing quality for a project

8.2. Rita’s Process Chart—Quality Management: Definition of Quality, Definition of Quality Management, Quality Theorists, Gold Plating, Prevention Over Inspection, Marginal Analysis, Continuous Improvement (or Kaizen), Just in Time (JIT), Total Quality management (TQM), Responsibility for Quality, Impact of Poor Quality, Cost of Conformance and Cost of Nonconformance, For Understanding the Difference Between Quality Planning, Assurance, and Control

8.3. Quality Planning: Cost-Benefit Analysis, Benchmarking, Design of Experiments (DOE), Cost of Quality (COQ), Outputs of Quality Planning

8.4. Perform Quality Control: Population/Sample, Mutual Exclusivity, Probability, Normal Distribution, Statistical Independence, Standard Deviation, 3 or 6 Sigma, quality Control Tools, Seven Basic Tools of Quality, Cause and Effect Diagram (Fishbone diagram, Ishikawa diagram, Flowchart, Pareto Chart, Run Chart, Scatter Diagram, Control Chart)

9.0 Human Resource Management

9.1. How to effectively manage resources is paramount to the successful completion of a project

9.2. The stages of team development and the methods used to guide teams through the various stages

9.3. Roles and Responsibilities of Project Manager, PM Team, Sponsor, Team, Stakeholders, and Functional Manager


9.5. Acquire Project Team: Enterprise Environmental Factors, Organizational Process Assets, Negotiation, Halo Effect

9.6. Develop Project Team: Team Building, Training, Ground Rules, Co-Location (or War Room), Give Out Recognition and Rewards, Team Performance Assessment


10.0 Communications Management

10.1. A myriad of challenges in developing and executing a project communications plan

10.2. Participants explore how communication media, frequency and content are adapted to fulfill the communication needs of stakeholders
10.3. Communications Planning: Who Do We Communicate With, Communications Model, Effective Communication, Effective Listening, Communications Technology, Communications Methods, Control of Communications, Meetings, Communication Channels, Communications Management Plan

10.4. Information Distribution, Performance Reporting, and Manage Stakeholder (Issue Logs, Communication Blockers, Approved Change Requests and Approved Corrective Actions)

11.0 Risk Management

11.1. Risk is a given on any project.
11.2. The progression of risk from identification to analysis to response
11.3. The importance of developing and maintaining a risk-management plan and a risk-response plan Definition of Risk Management, Threats and Opportunities
11.4. Definition of Uncertainty, Risk Factors, Risk Averse, Risk Tolerances and Thresholds
11.7. Qualitative Risk Analysis: Probability and Impact Matrix, Risk Data Quality Assessment, Risk Categorization, Risk Urgency Assessment, Outputs of Qualitative Risk Analysis
11.8. Quantitative Risk Analysis: Determining Probability and Impact, Expected Monetary Value, Monte Carlo Analysis, Decision Tree, Proving the Value of Project Management, Outputs of Quantitative Risk Analysis
11.9. Risk Response Planning and Strategies, Outputs of Risk Response Planning

12.0 Procurement Management

12.1. The variety of types of contracts and procurement documents and effective evaluation criteria
12.2. Project Manager’s Role in Procurement, Centralized/Decentralized Contracting, The Procurement Management Process
12.3. Inputs to the Procurement Management Process, Plan Purchases and Acquisitions (Make-or-Buy Analysis, Contract Type Selection, Cost Reimbursable (CR), Cost Plus Fee (CPF) or Cost Plus Percentage of Costs (CPPC), Risk and Contract Type, Incentives, Types of Contract Statements of Work, Procurement Management Plan

12.5. Request Seller Responses: Bidder Conferences (Contractor Conferences, Vendor Conferences, Pre-Bid Conferences), Advertising, Qualified Seller List, Proposal (or bid)


13.0 Professional and Social Responsibility

13.1. Ensure Individual Integrity: Tell the Truth in Reports, Conversations and Other Communications, Follow Copyright Laws, Put the Project’s Needs Before your Own, Do Not Give or Take Bribes or Inappropriate Gifts, Do the Right Thing, Follow the Right Process

13.2. Contribute to the Project Management Knowledge, Enhance Personal Professional Competence, Promote Interaction Among Stakeholders (Balance Stakeholders’ Interests, Resolve Competing Interests, Deal with Problems and Conflicts as They Arise, Interact with Team and Stakeholders in a Professional and Cooperative Manner (Identify and Understand Culture Differences, Uncover Communication Preferences when Identifying Stakeholders

13.3. PMI’s PMP® Code of Professional Conduct: PMI reserves the right to amend the Code at any time. For updates to the Cost, visit PMI’s Web site, www.pmi.org

Co-requisite

At least 2-4 years of experience working in a Project Manager role leading a team, Already have a understanding of PMI and the PMBOK Guide, Interest in taking/prepping for the PMP certification exam Has the sufficient experience to take the PMP certification exam (4,500 hrs. of experience over 5 years) Not expecting to gain concentrated knowledge in any one area.

Contact Hours

_____ Contact Hours (Lecture ___ Hours / Lab ____ Hours)

Semester Credit Hours

__________ semester credit hours

Text / Lab Books

PMP Exam Prep
Teaching Strategies
A variety of teaching strategies may be utilized in this course, including but not limited to, lecture, discussion, written classroom exercises, written lab exercises, performance based lab exercises, demonstrations, quizzes and examinations. Some quizzes may be entirely or contain lab based components. A mid-course and end course examination will be given.

Method of Evaluating Students

Grade Distribution

<table>
<thead>
<tr>
<th>Class Attendance</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Term</td>
<td>30</td>
</tr>
<tr>
<td>Finals</td>
<td>50</td>
</tr>
<tr>
<td>Special Projects / Makeup projects</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
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Grading Policy

At the end of each course, each student is assigned a final grade as follows:

<table>
<thead>
<tr>
<th>Point Range</th>
<th>Interpretation</th>
<th>Grade</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 – 100</td>
<td>Excellent</td>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>80 – 89</td>
<td>Very Good</td>
<td>B</td>
<td>3.0 – 3.9</td>
</tr>
<tr>
<td>70 – 79</td>
<td>Average</td>
<td>C</td>
<td>2.0 – 2.9</td>
</tr>
<tr>
<td>60 – 69</td>
<td>Poor</td>
<td>D</td>
<td>1.0 – 1.9</td>
</tr>
<tr>
<td>Below 60</td>
<td>Failure</td>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>N/A</td>
<td>Withdrawal</td>
<td>W</td>
<td>0</td>
</tr>
<tr>
<td>N/A</td>
<td>Pass</td>
<td>P</td>
<td>0</td>
</tr>
<tr>
<td>N/A</td>
<td>Incomplete</td>
<td>I</td>
<td>0</td>
</tr>
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A student earning a grade of D or above is considered to have passed the course and is eligible to pursue further studies. A student receiving a grade of F has failed the course. A failed course must be repeated and passed to meet Avtech Institute’s graduation requirements, in addition to an overall program GPA of 2.0.
Requirements for Successful Completion of the Course
At a minimum, students must achieve the following:

- A passing grade of D or above
- Completion of all required examinations
- Submission of all required lab exercises and projects and;
- Adherence to the school attendance policy.

Equipment Needed
Industry standard desktop computer for lab exercises.

Equipment Breakdown
Lab room
Videos and Projector

Library Assignments
To be determined by the instructor.

Portfolio Assignment
Student program outcome portfolios are required to demonstrate student competencies. In conjunction with your course structure, please select a project/paper that best demonstrates what you have learned in this course and add it to your program portfolio.

Course Policies
Disruptive Behavior
Disruptive behavior is an activity that interferes with learning and teaching. Inappropriate talking during class, surfing inappropriate website, tardiness, cheating, alcohol or drug use, use of cell phone, playing loud music during class, etc. all disrupt the learning process.

Copyright Infringement
Specific exemptions to copyright infringement are made for student use in the context of learning activities. Graphic design students often download images from the Internet, or scan images from publications. As long as this work is for educational purpose, and subject to faculty permission, this is not a problem.

Plagiarism
Faculty cannot tolerate the misrepresentation of work as the student’s own. This often involves the use by one student or another student’s design, whether voluntarily or involuntarily. In the event that plagiarism is evident and documented, all students involved in the conscious decision to misrepresent work must receive an F as the grade for the project. A second occurrence may result in suspension for the rest of the quarter, and return to the school only after a review by the Academic Standards Committee.
**Attendance**

**Attendance and Lateness**

In education and the workplace, regular attendance is necessary if individuals are to Access. There is a direct correlation between attendance and academic success. Attendance is mandatory. All students must arrive on time and prepared to learn at each class session. At the faculty member’s discretion, students may be marked absent if they arrive more than 15 minutes late to any class. More than five absences in a class that meets twice per week or more that two absences in a class that meets once per week may result in a failure.

**Make-Up Work**

**Late Projects and Homework**

All projects and homework must be handed in on time. Homework should be emailed to your instructor if you are going to miss a class. Work that is submitted one week late will result in the loss of one full grade; and work that is submitted two weeks late will result in the loss of two full grades; more than two weeks late you will receive a failing grade on the project.