

University of Asia Pacific (UAP)
Department of Electrical & Electronic Engineering

Course Outline

Program:	Electrical and Electronic Engineering (EEE)
Course Title:	Industrial and Operational Management
Course Code:	IMG 401 (Sec-A)
Semester:	Spring-2022
Level:	4 th year 1 st Semester
Credit Hour:	2.0
Name & Designation of Teacher:	Dr. Shuva Ghosh, Associate Professor, Adjunct Faculty, UAP
Office/Room:	Department of EEE, 5 th floor, UAP campus
Class Hours:	Monday 8:00 AM -10:00 AM
Consultation Hours:	Monday 10:00 AM – 11:00 AM
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Course Synopsis:	Introduction, evolution, management functions, organization and environment. Organization: theory and structure, coordination, span of control, authority delegation, groups, committee and task force, manpower planning. Personnel management: scope, importance, need hierarchy, motivation, job redesign, leadership, participative management, training, performance appraisal, wages & incentives, informal groups, organizational change and conflict. Cost & financial management: Elements of costs of products depreciation, breakeven analysis, Investment Analysis, Benefit cost analysis. Management accounting: Cost planning and control; budget & budgetary control, Development planning process. Marketing Management: Concepts, strategy, sales promotion, patent laws. Technology Management: Management of innovation and changes, technology life cycle. Case studies.
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Course Objectives:

The objectives of this course are to:

1. Introduce organizational management system along with its basic principles, fundamental elements and inter-relations between them.
2. Show the principles of operational management along with its basic principles, fundamental elements, and inter-relations between them.
3. Discuss different types of financial and accounting principles, concepts, and methods to decide and analyze different types of financial decisions.
4. Discuss some basic principles of marketing and technology management.

Course Outcomes (CO) and their mapping with Program outcomes (PO) and Teaching-Learning Assessment methods:

CO No.	CO Statements: Upon successful completion of the course, students should be able to:	Corresponding POs along with knowledge profile (WK) (Appendix-1)	Bloom's taxonomy domain/level (Appendix-2)	Delivery methods and activities	Assessment Tools
CO1	Identify fundamental concepts and components required for managing organization	1 (WK4)	Understand	Live video Lecture, PPT presentation	Online Quiz, Viva
CO2	Identify and select fundamental concepts and components required for managing operations	1 (WK3)	Apply	Live video Lecture, PPT presentation, Problem Solving	Open book Assignment, Online presentation, viva
CO3	Select and analyze different types of financial decisions	2 (WK3)	Apply	Live video Lecture, PPT presentation, Problem Solving	Open book Assignment, Online presentation, viva
CO4	Select and analyze different types of marketing management tools	2 (WK2)	Analyze	PPT presentation, Problem Solving, Group discussion	Open book Assignment, Online presentation

Weighting COs with Assessment methods:

Assessment Type	% weight	CO1	CO2	CO3	CO4
Final Exam	50%	5	10	20	15
Mid Term	20%	10	10		
Class performance, Quizzes, Presentation, Assignment	30%	7.5	7.5	7.5	7.5
Total	100%	22.5	27.5	27.5	22.5

Grading Policy: As per the approved grading policy of UAP (Appendix-3)

Course Content Outline and mapping with COs

Week	Topics/Contents	Course Outcome	Delivery methods and activities	Reading Materials
1	Introduction to organization and management, importance of management and managers, management structure, functions of management, levels of management	CO1	Lecture, multimedia	Chapter 1: Management by Stephen P. Robbins and Mary Coulter

Week	Topics/Contents	Course Outcome	Delivery methods and activities	Reading Materials
2	Organizational structure, designing organizational structure, factors affecting structural choice, Traditional and modern organizations design	CO1	Lecture, multimedia	Chapter 10: Management by Stephen P. Robbins and Mary Coulter
QUIZ-1				
3, 4	Personnel management, importance of personnel management, motivation, factors affecting motivation, need hierarchy	CO1 CO2	Lecture, multimedia, Problem Solving	Chapter 1: Human Resource Management by Gary Dessler Chapter 16: Management by Stephen P. Robbins and Mary Coulter
5, 6	Leadership, participative management, training, performance appraisal, wages and incentives, group dynamics, personnel training	CO1 CO2	Lecture, multimedia, Problem Solving	Chapter 17: Management by Stephen P. Robbins and Mary Coulter Chapter 9: Human Resource Management by Gary Dessler
7	QUIZ-2 and Review of Midterm Syllabus			
MIDTERM EXAM				
8, 9	Importance of cost and financial, elements of costs, determining product depreciation, breakeven analysis, investment analysis, benefit cost analysis	CO3	Lecture, multimedia, Problem Solving	Chater 2, 5, and 13: Managerial Accounting by Garrion, Noreen, Brewer
10, 11	Preparing budgets, cost planning and control, budgetary planning and control, benefit cost analysis	CO3	Lecture, multimedia, Problem Solving	Chater 8 and 13: Managerial Accounting by Garrion, Noreen, Brewer
QUIZ-3 + Assignment + Presentation				
12,13	Concepts of marketing management, product promotion, designing marketing strategy, developing sales strategy,	CO4	Lecture, multimedia	Chapter 1 and 2: Marketing Management by Phillip Kotler and

Week	Topics/Contents	Course Outcome	Delivery methods and activities	Reading Materials
	Technology Management, technology life cycles, management of innovation and change			Kevin Lane Keller Chapter Chapter 1 and 2: Management of Technology by Tarek M. Khalil
14	QUIZ-4 and Review of Final Exam Syllabus			
FINAL EXAM				

Required Reference(s):

1. S. P. Robbins and M. Coulter: Management, Prentice Hall, NJ, USA
2. G. Dessler: Human Resource Management, 15th Edition, Pearson Education Inc., USA.
3. R. H. Garrison, E. W. Noreen, and P. C. Brewer: Managerial Accounting, McGraw Hill Education, NY, USA
4. P. Kotler and K. L. Keller: Marketing Management, Prentice Hall, NJ, USA
5. T. M. Khalil: Management of Technology

Special Instructions:

- As per general UAP rule, minimum 70% is required to attend the semester final exam. However, due to internet connection or network problems suffered by few students in online semester, this percentage would be considered in favor of the students.
- There is no mark for class attendance. However, there is mark for class performance.
- Generally, there will be no make-up for quizzes and mid-term exam. But, if a student suffers network problem, his case may be considered.
- No plagiarism would be allowed in assignments. Cases of copying one another in assignments or class tests would be dealt very strictly.
- Students must come to the class prepared for the course material covered in the previous class.

Prepared by	Checked by	Approved by
Course Teacher	Chairman, PSAC committee	Head of the Department

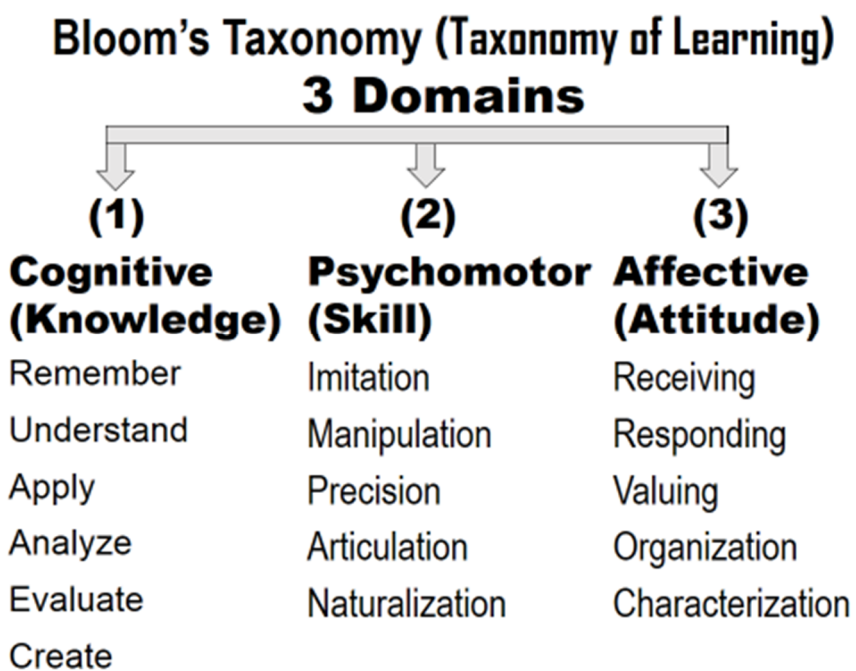
Appendix-1:

Washington Accord Program Outcomes (PO) for engineering programs:

No.	PO	Differentiating Characteristic
1	Engineering Knowledge	Breadth and depth of education and type of knowledge, both theoretical and practical
2	Problem Analysis	Complexity of analysis
3	Design/ development of solutions	Breadth and uniqueness of engineering problems i.e. the extent to which problems are original and to which solutions have previously been identified or codified
4	Investigation	Breadth and depth of investigation and experimentation

5	Modern Tool Usage	Level of understanding of the appropriateness of the tool
6	The Engineer and Society	Level of knowledge and responsibility
7	Environment and Sustainability	Type of solutions.
8	Ethics	Understanding and level of practice
9	Individual and Team work	Role in and diversity of team
10	Communication	Level of communication according to type of activities performed
11	Project Management and Finance	Level of management required for differing types of activity
12	Lifelong learning	Preparation for and depth of Continuing learning.

Appendix-2



Appendix-3

UAP Grading Policy:

Numeric Grade	Letter Grade	Grade Point
80% and above	A+	4.00
75% to less than 80%	A	3.75
70% to less than 75%	A-	3.50
65% to less than 70%	B+	3.25
60% to less than 65%	B	3.00
55% to less than 60%	B-	2.75

50% to less than 55%	C+	2.50
45% to less than 50%	C	2.25
40% to less than 45%	D	2.00
Less than 40%	F	0.00

