

WOLLO UNIVERSITY
COMBOLCHA INSTITUTE OF TECHNOLOGY
Industrial Engineering Department

Industrial Management and Engineering Economy

Academic year 2019

CourseNumber: CEng 5211 or MEng 5241 CourseTitle: Industrial Management and Engineering Economy Instructor: Yared A.,Dagne T. & Mengistu M.		CreditHours: 3 ContactHours: 2Lectureand 3 Tutorial hrs.		
Course Objectives: The course enables students to understand basic principles/concepts of: <ul style="list-style-type: none">• Industrial management and organization;• Industrial plant design;• Effective material management;• Management and resource allocation; and• Engineering economy.				
Course Description: Basic management concepts and industrial organization; Work environment; Plant design; Materials management;Forecastingtechniques;Basicsofaccountingprinciples;Projectmanagement;Financial evaluation.				
WEEKS	COURSE OUTLINES:	ACTIVITIES TO BE PERFORMED		
Week 1 to 2 March 16 to 27/2020	1. Basic Management Concepts and Industrial Organization: <ul style="list-style-type: none">▪ Introduction to management;▪ Functions of management;▪ Organizational structure;▪ Basics of productivity.	Quiz 1	Mid-Exam	Industrial Visit
Week 3 to 4 Apr 30to 10/2020	2. Plant Design: <ul style="list-style-type: none">▪ Basics of plant Layout;▪ Study of Plant Layout;▪ Ergonomics and Industrial Safety	Assignment followed by presentation		
Week 5 to 6 Apr 13 to 24/2020	3. Forecasting: <ul style="list-style-type: none">▪ Meaning and use of forecasting;▪ Forecasting techniques	Test 1		
Week 7to 8 Apr 27 to May8/2020	4. Materials Management: <ul style="list-style-type: none">▪ Purchasing;▪ Inventory control	Quiz 2	Final-Exam	
Week 9 to 11 May 11 to 29/2020	5. Project Management and Resource Allocation: <ul style="list-style-type: none">▪ Work breakdown structure;▪ Project organization,▪ Network scheduling;▪ Projects crashing;▪ Resource allocation,	Class - Discussion Followed by Presentation		

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	<ul style="list-style-type: none">▪ Project risks	Test 2												
Week 12to 13 June 1 to 12/2020	6. Investment Evaluation: <ul style="list-style-type: none">▪ Total investment costs;▪ Projects financing;▪ Financial evaluations													
Week 14 to 15 June 15 to 26/2019	7. Basic Accounting Principles & Budgeting Fundamentals: <ul style="list-style-type: none">▪ Classification of accounts;▪ Accounting concepts;▪ Accounting statements;▪ Budgets and budgetary control	Reading Assignment Followed by Presentation												
Pre-requisites: <ul style="list-style-type: none">▪ Senior standing														
Textbook: <ul style="list-style-type: none">▪ Daniel Kitaw, Industrial Management and Engineering Economy														
References: <ol style="list-style-type: none">1. Riggs James L. Production Systems: Planning, Analysis & Control, New York: John Wiley & Sons Inc. 1970.2. Mikell P. Groover, Automation, Production systems, and Computer-Integrated Manufacturing3. 2nd Edition, Asia, Pearson Education, 20014. Moore, James M. Plant Layout and Design, New York ; Macmillan Company, 19625. 4. Muther , Richard Systematic Layout Planning, London, Industrial International Limited, 19626. Turner, Joe H. Mize, Kenneth E. Case, Introduction to Industrial and System Engineering,7. Prentice Hall Inc., Englewood Cliffs, New Jersey,19788. Kurtz, Max P.E., Hand Book of Industrial Management, New York: McGraw Hill Inc., 1984, 199. Peter Atrill& Eddie McLaney, Accounting and Finance for Non -specialist, New Delhi:, Prentice10. Hall of India, 2001														
Teaching Methods: <ul style="list-style-type: none">▪ Lectures supported by tutorials▪ Assignments followed by presentations.▪ Industrial visit														
Attendance Requirement: <ul style="list-style-type: none">▪ Minimum of 80% attendance during lecture hours;▪ 100% attendance during tutorials and industrial visits, except for some unexpected mishaps.														
Evaluation: <table><tr><td>▪ Quizzes</td><td>6%</td></tr><tr><td>▪ Tests</td><td>14%</td></tr><tr><td>▪ Assignments, Discussions and Visit Report followed by Presentations</td><td>20%</td></tr><tr><td>▪ Mid - Exam</td><td>20%</td></tr><tr><td>▪ Final - Examination</td><td>40%.</td></tr></table>					▪ Quizzes	6%	▪ Tests	14%	▪ Assignments, Discussions and Visit Report followed by Presentations	20%	▪ Mid - Exam	20%	▪ Final - Examination	40%.
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▪ Final - Examination	40%.													
Hours per semester: <ul style="list-style-type: none">▪ 80 hours														