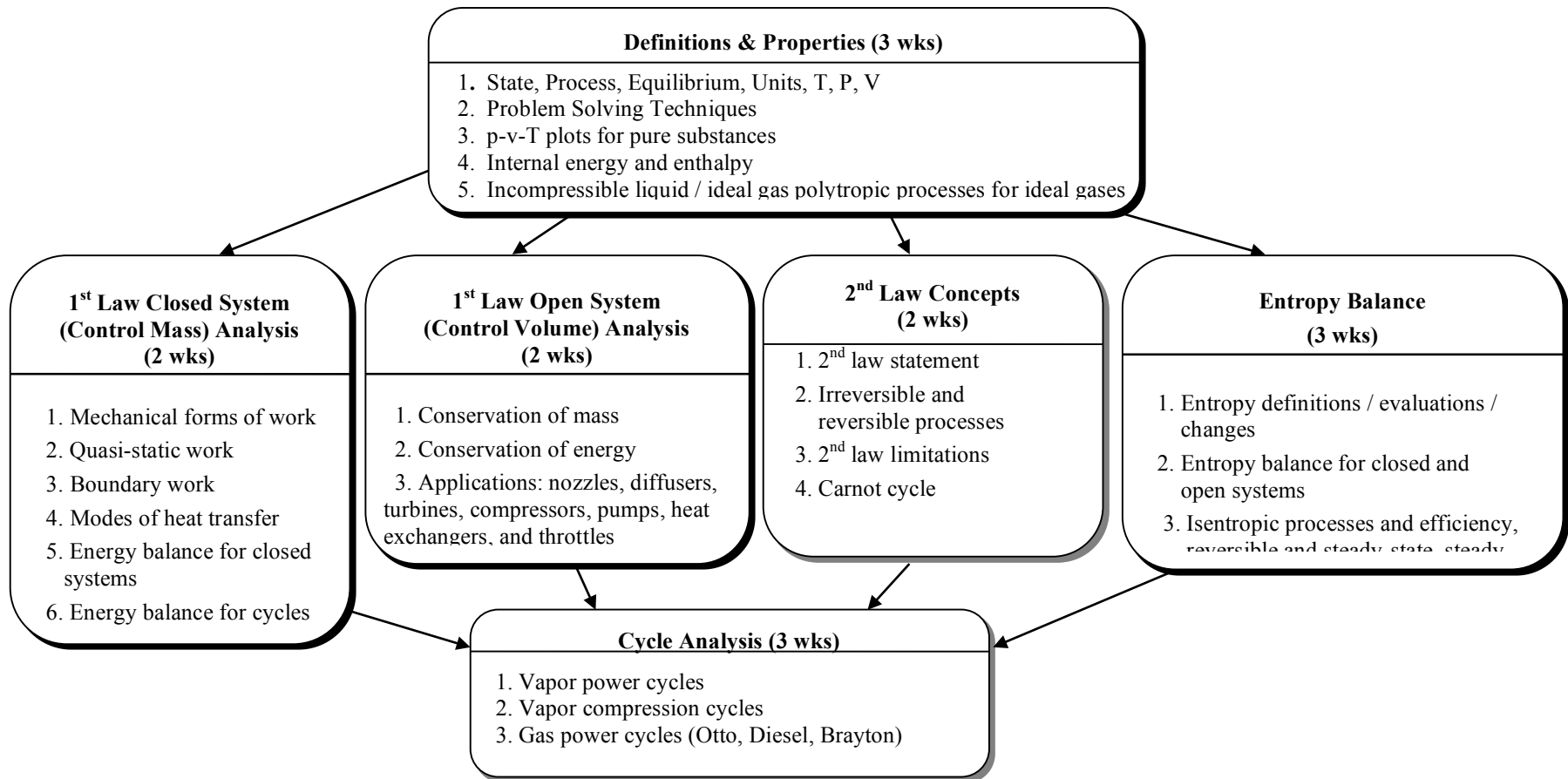


ME 200 THERMODYNAMICS I

Course Outcomes [Related ME Program Outcomes in brackets]

1. Provide a thorough understanding of the basic concepts of thermodynamics, (i.e., 1st and 2nd law). [1, 2, 7]
2. Apply the basic concepts of thermodynamics to the solution of practical problems. [1, 2, 7]
3. Develop a systematic approach to problem-solving skills. [1, 7]
4. Cultivate a strong work ethic in students. [7]



COURSE NUMBER: ME 200		COURSE TITLE: Thermodynamics I	
REQUIRED COURSE OR ELECTIVE COURSE: Required		TERMS OFFERED: Fall, Spring and Summer	
TEXTBOOK/REQUIRED MATERIAL: M. J. Moran and H.N. Shapiro, <i>Fundamentals of Engineering Thermodynamics</i> , 9 th ed, John Wiley and Sons, Inc., 2018.		PRE-REQUISITIES: CHM 115 General Chemistry	
COORDINATING FACULTY: E.A. Groll		CO-REQUISITIES: MA 261 Multivariate Calculus	
COURSE DESCRIPTION: First and second laws, entropy, reversible and irreversible processes, properties of pure substance. Application to engineering problems.		COURSE OUTCOMES [Related ME Program Outcomes in brackets]: <ol style="list-style-type: none"> 1. Provide a thorough understanding of the basic concepts of thermodynamics (i.e., 1st and 2nd law). [1, 2, 7] 2. Apply the basic concepts of thermodynamics to the solution of practical problems in a social context. [1, 2, 7] 3. Develop a systematic approach to problem-solving skills. [1, 7] 4. Cultivate a strong work ethic in students [7] 	
ASSESSMENTS TOOLS: <ol style="list-style-type: none"> 1. Daily homework 2. Six ½-hour quizzes. 3. Three 1-hour exams. 4. One comprehensive final exam. 		RELATED ME PROGRAM OUTCOMES: <ol style="list-style-type: none"> 1. Engineering fundamentals 2. Engineering design 3. Communication skills 4. Ethical/Prof. responsibilities 5. Teamwork skills 6. Experimental skills 7. Knowledge acquisition 	
NATURE OF DESIGN CONTENT: N/A			
PROFESSIONAL COMPONENT: <ol style="list-style-type: none"> 1. Engineering Topics: Engineering Science – 100% 			
COMPUTER USAGE: None.			
COURSE STRUCTURE/SCHEDULE: Lecture - 3 days per week at 50 minutes			
PREPARED BY: E. A. Groll (updated by R. P. Lucht)		REVISION DATE: January 31, 2019	