

ISC 2216 – APPLICATIONS OF CALCULUS II
SPRING 2009
HPA 112, Mon, 4:30 – 5:45 p.m.

COORDINATOR: Dr. Scott C. Hagen, P.E.
ENG2, Room 442H
OFFICE HOURS: Mon/Wed, 10:30 – 11:30 a.m. or by appointment.

ASSISTANT: Mr. Peter Bacopoulos
CCII, Room 223
OFFICE HOURS: Mon/Wed, 10:30 – 11:30 a.m. or by appointment.
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REQUIRED TEXT: Applications of Calculus II.
Edited by: S.C. Hagen and S.C. Medeiros.
To be handed out on the first day of class.

REQUIRED DEVICE: VHPS “Clicker,” ISBN = 9780716779391. If you do not have your “Clicker” or if your batteries are dead, you will not receive credit for your presence that day. Therefore, it is a good idea to have a spare set of batteries on hand.

COURSE OBJECTIVE: The goal of the EXCEL program is to enhance understanding of mathematics (primarily calculus) for Science, Technology, Engineering and Mathematics (STEM) students. Mathematics is considered the cornerstone of the success of any student pursuing a degree in a STEM discipline. One way of achieving this goal at UCF is by introducing students to the Application of Calculus courses. The presentations that the individual EXCEL faculty members will make in the Applications of Calculus II class will show you how material that you will be learning in your Calculus II class is *actually used* in the discipline of the faculty presenter. These presentations are correlated with sections of your calculus book.

ORGANIZATION OF COURSE: There will be a total of seven faculty presenters who will provide lectures for the Applications of Calculus II class. During the first week of each module, the presenter will give a lecture of at least one-hour covering his/her topic of interest. During the second week, the faculty will present an in-class project and discuss the logic/procedure for completing the project and may present new material to supplement the first week of his/her module. Each presenter will also have multiple in-class problem solving exercises that you will answer with your “clicker.”

GRADING: You will use your “Clicker” to answer questions in class, and your participation in class will be recorded by the system. You will receive 25% of your grade if you are present and respond (right or wrong) to the questions indicated as “participation.” The remaining 75% of your grade will be based on how correctly you answer the additional in-class questions (indicated as “performance”). The plus/minus system of grading will not be used (i.e., you will receive an A, B, C, D or F).

Note: The use of another person's pad is considered to be cheating by both parties involved. **If caught, both parties will receive an F for the course and may be reported to the University's disciplinary committee.**

SCHEDULE:

Faculty Presenter (Home Department)	Week No.	Dates
"Topic"		
Mr. Bacopoulos (Civil & Environmental Engineering)	1	1/12
"Announcements, Course Overview, & Lecture Procedures"		
MARTIN LUTHER KING DAY!	2	1/19
Dr. Brueckner (Physics)	3 & 4	1/26 & 2/2
"Applying Hyperbolic Functions to Quantum Tunneling & EM Wave Problems"		
Dr. Self (Molecular Biology & Microbiology)	5 & 6	2/9 & 2/16
"Exponential Functions in Biomedical Science"		
Dr. Divo (Engineering Technology)	7 & 8	2/23 & 3/2
"Role of Integration by Parts in Engineering & Applications"		
SPRING BREAK!	9	3/9
Dr. Lobo (Computer Science)	10 & 11	3/16 & 3/23
"Interactive Graphics Curves using Parametric Equations"		
Dr. Clausen (Chemistry)	12 & 13	3/30 & 4/6
"Use of Polar Coordinates in Chemistry"		
Dr. Kassab (Mechanical, Materials & Aerospace Engr.)	14 & 15	4/13 & 4/20
"Applications of Series in Heat Transfer & Fluid Flow Modeling Methods"		
Dr. Hagen (Civil & Environmental Engineering)	16	4/27
"Course Assessment & Final Review"		

CLASS ETIQUETTE: Three simple rules in particular will be strictly followed in this class.

No talking when the presenter is talking, unless you are called upon or asked to participate in a group discussion.

Don't walk up and down the stairs during class. This is distracting to your fellow students.

Turn off beepers and cell phones before entering the classroom. If you disrupt the class in this manner, you will be asked to leave.

GOLDEN RULE: All students should read and abide by the UCF Golden Rule (<http://www.goldenrule.sdes.ucf.edu/>).

DISCLAIMER: The instructor reserves the right to modify the schedule and/or the grading basis, if in the professional judgement of the instructor, such modification is in the best interest of fulfilling the objectives and assuring the academic integrity of the course and the instruction.