Fall 2009 (Semester 20101)
Instructor: Doug Jones
1-st Lecture: Mon. Aug. 24, 2009
INTRODUCTION
Time, Days, Place, Purpose

- TIME: 8:00 – 8:50 am // SHARP!
- DAYS: Monday, Tuesday, Wednesday, Thursday, Friday.
- PLACE: SM 129
- PURPOSE: To provide you with the tools to solve a more wide and more realistic collection of mathematical models.
Calc II @ TCC

• Think of this class as a “Technical Department” of a large corporation, SCIENCE/MATH @ TCC.

• The President and CEO is the Dean, Dr. Frank Brown.

• You are the technical staff; I am the supervisor.
• You will try to be professional; I shall try to be professional.

• Our “work products” are our homework and our tests.

• We are the BEST technical department in the corporation, and we know it; but we are humble, not boastful.
• We shall work together in groups, when appropriate.

• We shall work alone, when appropriate.

• I shall try to be readily available outside class to clarify questions.

• It is extremely important to me that you do more than simply learn this material – you must ultimately own it!
Calc II @ TCC

Company Benefits
(In No Particular Order)

• The Instructor
• The Textbook
• The Instructor’s Web Page
• BlackBoard
• MyMathLab
• The Learning Commons
• Each Other
The Instructor
Doug Jones

• Education
  – Coconut Grove Elementary
  – Ponce de Leon Jr. High
  – Coral Gables High
  – Florida State University
    • BA 1964
    • MS 1967
    • ABD 1970 (Projections in Normed Linear Spaces)

• Registered Civil Engineer, State of Florida, 1991 #44003 (Inactive Status)
The TextBook
Thomas’ Calculus
Early Transcendentals, 11th ed.

• Unit #1
  – Ch. 6 – “Applications of Definite Integrals” (7 sections)
  – Ch. 7 – “Integrals and Transcendental Functions” (4 sections)

• Unit #2
  – Ch. 8 – “Techniques of Integration” (8 sections)
  – Ch. 9 – “Further Applications of Integration” skip
  – Ch. 10 – “Conic Sections and Polar Coordinates” (8 sections)

• Unit #3
  – Ch. 11 – “Infinite Sequences and Series” (Sections 11.1 – 11.6)

• Unit #4
  – Ch. 11 – (Sections 11.7 – 11.11)
The “1.7 – Rule”: ≈ 1.7 class periods per section.
The Instructor’s Web Page

• My TCC Web Page is located at http://faculty.tcc.fl.edu/scma/jonesd

• Or you can easily get to the page by “Googling” doug tcc
BlackBoard

• You have probably used it in previous courses.
• I shall mainly post notices and grades on BlackBoard.
• The Link is: http://blackboard.tcc.fl.edu/
MyMathLab

• You have probably used it in previous courses.
• There will be Quizzes and Homework posted on CourseCompass/MyMathLab.
• The TextBook is on MyMathLab.
• The Link is: http://portal.coursecompass.com/
• This Course ID Number is: jones79187
The Learning Commons

• The Learning Commons is a neat place.
• You probably already know about it.
• You may already work there.
• Quite a few of my former students work there.
  – (Parenthetically, quite a few of my former students are practicing engineers!)
• Click for the LEARNING COMMONS
Each Other

• Pure Math is a solitary pursuit. Mathematicians “do their own thing” and publish the results. To me, this is fun – although I don’t publish.

• Applied Math is a collegial pursuit. In engineering, physics, chemistry, electronics, computer science, homeland security, etc., we work in coordinated groups or teams in order to get the job done.

• In real-world practice, we work in teams, and everyone brings his/her expertise and special talents into the project. No one gets “carried” for long!

• To me, this is also fun.
How To Teach

~ How I Teach ~

• I like math!
  – It is multi-dimensional.

• I know what you need to know.
  – Technical skills.
  – Organizational skills.

• And I know why you need to know it.
  – The philosophy behind it all.
• I try to teach *via* all the traditional learning style pathways
  – Visual
  – Auditory
  – Tactile/Kinesthetic

• However, my personal MAIN learning style is by ANALOGY or METAPHOR –
  – I can remember IDEA X because I have related it (somehow) to IDEA Y.

• As a result of the above, I often teach slowly and repetitively.
Some of you may like this; some of you may not —

– If I go too slowly for you, just tell me to please speed up and I will. No hard feelings.
– I admit that I do like to analyze things – tear them down and put them back together – see what makes them “tick.”
– And this approach takes more time than a “quick once-over.”
How To Learn

- **Index of Learning Styles Questionnaire** (NCSU)
- **Bloom’s Taxonomy** (Mary Forehand, UGA)
- **Math Study Skills & Anxiety Reduction**
- **G. Polya, “How to Solve It.”**
How To Do Homework

• How To Do Homework
• Notebook Homework
• How To Write-Up Problems
The End

Or is it just the Beginning?