**TALLAHASSEE COMMUNITY COLLEGE**
**CALC I // MAC 2311 – 119934 // DOUG JONES**
**SYLLABUS for SUMMER SEMESTER 2013**
Published WED.05.08.2013. // Rev. — 000 XXX.XX.XX.13 & #

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| INSTRUCTOR: | Doug Jones |
| CLASS DAYS: | MTWR |
| CLASSROOM: | SM 128 |

| MY OFFICE HOURS: | 12:00-1:00 MTWR SM 247 |
| Or By Appointment (OBA) | SM 247 |
| MY PHONE: | 201-9819 |
| DEPT. FAX: | 201-8119 |
| MY EMAIL: | jonesd@tcc.fl.edu |

| CLASS TIME: | 9:10 am — 10:45 am |
| LAST DAY TO "W": | Mon., Jun. 24, 2013 |
| ALL CLASSES END: | 5pm Thu., Jul. 18, 2013 |
| YOUR FINAL EXAM: | 7:00am - 8:45am Mon., July 22, 2013, SM128 |

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We will be using WebAssign which is found at http://www.webassign.net. And the "Class Key" is tcc.fl 6120 2389 and the "Institution Code" is tcc.fl.

PREREQUISITE: Completion of MAC 2147 or both MAC 2114 and MAC 2140 with grades of C or better.

COURSE DESCRIPTION from CATALOG: MAC2311 Calculus with Analytic Geometry I (5) FA SP SU. Topics include limits of functions and continuity; the derivative of a function; techniques of differentiation of algebraic, trigonometric, inverse, exponential and logarithmic functions; the Mean Value Theorem; parametric equations; applications of the derivative (relative and absolute extrema, velocity and acceleration, related rates, curve sketching, differentials); indeterminate forms and L'Hopital's Rule; indefinite and definite integrals; the Fundamental Theorem of Calculus; integration by substitution; and area between curves. Lecture: 5 hours. A graphing calculator is required; check with instructor for the most appropriate one.

GOALS OF THE COURSE: This course is designed for mathematics, science, engineering, and mathematics education majors and for students interested in continuing a fairly rigorous introduction to calculus concepts. This course can be used to satisfy part of the General Education Mathematics Requirement or it can serve as an elective.

ORGANIZATION of the COURSE: Since all students taking this course are pursuing scientific or technical professional careers, there is much to be gained, I believe, by structuring this class as if it were the technical department, call it LEVEL 3, of a large scientific organization, CALC01@TCC, LLC. I will play the role of your Technical Supervisor, and you (collectively) will function as my Technical Staff. Each one of you will have the job title Calculus Technician – III.

Thus, for example, you will not do "Homework:" you will do "Outside Work," and you will "keep and maintain a Journal" and periodically "submit technical memoranda" for my review and approval.

Additionally, just as in the "real world" you take tests in order to improve your work-product, your professional certifications, and/or your earning capacity, also in this class you must periodically be examined to establish and document your progress up the ladder or "rank" and "knowledge."

Finally, by way of further analogy, just as you neither show up late for your job nor leave early, you must neither report late to class nor leave early without prior notification to your supervisor (i.e, me). And by no means will you miss a class without prior notification — if at all possible — to your supervisor (i.e, also me).
ATTENDANCE and ADMINISTRATIVE WITHDRAWAL POLICY: Attendance is required and roll will be checked daily.

WITHDRAWALS: If you decide to withdraw from this course, the last date for you to withdraw with a "W" is

   Monday, June 24, 2013.

ATTENDANCE POLICY: Class attendance is required. Roll will be taken. And attendance will be taken into account in borderline cases when final grades are calculated.

If you wish to withdraw from this class, it is your responsibility to do so before the "withdrawal deadline." If you don't withdraw and simply quit attending class, you will receive an F in the course.

If you are absent, it is your responsibility to contact me, check the class web page, or contact someone in the class to find out what was covered in class and what homework was assigned.

LATE ARRIVALS: Any late arrival or early departure, without prior notification not only exhibits bad manners, but also may be counted as an absence.

MISSING THE FINAL EXAM: If you miss the Final Exam, then you get an "F" in the course, regardless of your grade average in the class. If you have a solid, documented excuse (e.g. you were in the hospital, etc.) which you can present to the Dean and which he accepts (not me.... the Dean!), then you could be permitted to take the Final Exam, and your grade could be changed.

CAVEAT: The pacing schedule may be changed as we go through the semester. You should be in class (each meeting) so that you are aware of ANY changes.

WEB PAGE: The CALC1 WEB PAGE is an important learning & teaching tool. But to use it as a substitute for attending class is a mis-use. However, this being said, I do expect you to check the web page at least once a day.

On the WEB PAGE I shall post

- The Syllabus and Pacing Schedule,
- Daily Notes of what we did in class,
- Copies of "Old Tests" and/or "Study Guides" before Test Time,
- Announcements and Reminders, and
- Interesting Calculus-related "Hot-Links."
- My thoughts, insights, ideas, etc. about Math, Calculus, Learning, etc.

Here are some of the ways that you can effectively use the CALC1 WEB PAGE:
● If you must miss a class, you can find out what we did that day, read over the material on your own, try to make sense out of it, and prepare any assignments and/or reading for the next class.
● Even if you were in class, you can (and should) read the daily notes to see what I thought that I taught you that day! (I say this because it seems to happen often that what a teacher thinks (s)he taught and what a student learns are quite two different things!)

Regarding **COMMUNICATION**: Due to the way the "world works today," I *must* require that all email communication between us (student & teacher) be via our respective tcc email accounts, *i.e.*, mine ending with "@tcc.fl.edu" and yours ending with "@mymail.tcc.fl.edu". Furthermore, it is imperative that you check your TCC email account **at least once a day** for messages, instructions, updates, ideas, etc., from me.

Also, Grades and other important material will be posted on WebAssign ([http://www.webassign.net/](http://www.webassign.net/)).

**ADA Statement:** Tallahassee Community College (TCC) is committed to making all programs, services and facilities accessible to and usable by persons with disabilities in order for students to obtain maximum benefit from the educational experience and to effectively transition to our college environment. Persons with disabilities are encouraged to register with the TCC Disability Support Services Office which is located on the first floor of the Student Union.

**ATTENTION: ENGINEERING STUDENTS!** There are more stringent performance standards-and-requirements for engineering students than for the general university population. For example, the following information is taken from the [FSU Undergraduate Academic Program Guide, requirements for Mechanical Engineering](http://www.webassign.net/).

**Admission Requirements to Major Program of Studies**
To be admitted, students must complete at least 52 hours of credit with an adjusted GPA of 2.0, including at least one-half of the required hours in the Liberal Studies program, including all of Area I and II (English, Math). In addition, the following requirements must be met:

- A grade of C or better in EGN 1004L (1) First Year Engineering Lab; and
- A grade of C or better, from any institution attended, in Calculus I, Calculus II, General Chemistry I with Lab, and General Physics I with Lab.
- A single repeated attempt in *only one* of these courses is permitted.

Visit the FSU link above for more information.
**CALCULATOR REQUIREMENT:** You will need a graphing or scientific calculator in this class. **Bring it to class with you every day.** I don't care what brand of calculator(s) you have. However no calculator "above" a TI-84 Plus (Silver Edition) may be used. In calculator problems, the complete calculator answer display (usually 10 digits) must be written before rounding off. Additionally, certain problems will be "calculator-free," *i.e.*, no calculator will be allowed.

No specific brand or model of calculator is required.

Also, for several reasons, I suggest that you buy your own calculator(s) and not just borrow one from your friend —

1. You are entering the level of your education which is beyond the "general knowledge" or "liberal arts" stage. You have chosen a professional, technical career track, and your calculator will become one of the standard instruments of your profession. A lawyer has his/her own law books, a musician has her/his own instrument, a doctor has her/his own stethoscope, . . . . Get the picture?
2. I shall *reset*, not *clear*, but *reset* your calculator at the beginning of each TEST, QUIZ, or FINAL EXAM. And I am sure that your friend would not appreciate having all his programs erased from memory.
3. Also, if you have your own calculator, then you probably will have your own *manual* that goes along with the calculator. (These days, manuals are to be found on-line).

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**COMPUTER USE:** In addition to a graphing or scientific calculator, discussed above, I shall be working with the CAS (Computer Algebra System) **MAPLE** on the PC computer in SM128.

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**OTHER EQUIPMENT:** In addition to a graphing or scientific calculator, as discussed above, you will need the following equipment:

- a straightedge,
- a compass,
- a protractor,
- a mechanical pencil (0.5, 0.7, or 0.9 mm with HB or B lead), and
- a decent eraser (One *may* come with your pencil, but I doubt it!)
- a ball point pen (black or blue ink)

**NOTE:** I normally require these items of my Trig and Precalc students, and there is no reason that this requirement should not carry forward to higher-level courses.
GRADING POLICY:

GRADING SCALE

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&gt; 89.5</td>
</tr>
<tr>
<td>B</td>
<td>&gt; 79.5</td>
</tr>
<tr>
<td>C</td>
<td>&gt; 69.5</td>
</tr>
<tr>
<td>D</td>
<td>&gt; 59.5</td>
</tr>
<tr>
<td>F</td>
<td>≤ 59.5</td>
</tr>
</tbody>
</table>

FACTORS DETERMINING GRADE

1. THE WEIGHTED AVG OF YOUR WEBASSIGN HOMEWORK, PODs, QUIZZES, TURN-IN WORK, and NOTEBOOKS will count as 1 TEST. (Call this avg H).

2. THE AVG OF YOUR 3 TESTS AND YOUR H COUNTS 80% of YOUR COURSE GRADE.
   THAT IS: \( \frac{T1+T2+T3+H}{4} = 80\% \text{ of YOUR GRADE.} \)

3. YOUR CUMULATIVE FINAL EXAM COUNTS 20% of YOUR COURSE GRADE.

4. CONSIDERATION OF THESE FACTORS RESULTS IN THE FORMULA
   \[ G = \frac{T1 + T2 + T3 + H + E}{5} \]
   Where G is your FINAL GRADE (numerical), and E is your FINAL EXAM grade.

OUTSIDE-WORK: OUTSIDE-WORK (formerly called "Homework") must be done in order to succeed in this class! If you are unwilling or unable to devote at least two OUTSIDE-WORK hours outside class for every hour inside class (*), you will not realize your true potential in this course.

There are four types of OUTSIDE-WORK assigned in this course:

- **WEBASSIGN HOMEWORK (CCW):** Course ID: tcc.fl 6120 2389

- **PROBLEMS-OF-THE-DAY (PODs):** I will give the problem in class — not every day, but on "some" days. It might be a textbook problem, or it might be a problem that I make-up on the spot. Then you work the problem and turn it in at the beginning of the next class period. Group work is allowed, permitted, and encouraged on PODs.

- **TURN-IN HOMEWORK (TIHW):** Selected homework problems will be assigned and collected at specified times. Group work is allowed, permitted, and encouraged on TIW assignments. These problems will be graded for technique, accuracy, and neatness. At the end of the semester, the lowest 10% of your combined TIHW and POD scores will be dropped before I compute your OUTSIDE-WORK average.

- **NOTEBOOK HOMEWORK (NBHW):** These problems are to be done on a daily basis. These problems should be kept in a separate notebook. Each section must be clearly labeled. I shall periodically spot-check your NOTEBOOK. Also, you will turn in your NOTEBOOK at test time, and I will grade it, based upon the degree of completion of the assigned problems, neatness of the write-up, and correctness of the work. Each NOTEBOOK GRADE will count as three (3) turn-in assignments. No NOTEBOOK GRADE will be dropped, and no LATE NOTEBOOKS will be accepted.

Detailed instructions on how to prepare your OUTSIDE-WORK will be given in a separate hand-out.
Footnote: This is just "homework" time. It does not include the time necessary to read the textbook, work the examples in the textbook, and think about the material! All three of these activities should be done before you start to work your homework problems! [top]

QUIZZES: Some Quizzes, either "in-class" or "take-home" may be given (but probably not too many). At the end of the semester, the lowest 10% of your QUIZ scores will be dropped before computing your quiz average. [top]

TESTS: There will be three (3) unit tests during the semester. The tentative test dates are:

1. TEST #1 (Chapter 2) — Wednesday, May 22, 2013,
2. TEST #2 (Chapter 3) — Monday, Jun. 10, 2013, and
3. TEST #3 (Chapter 4) — Thursday, Jun. 27, 2013.
4. NOTE: The remaining material (Chapter 5 and a few sections in Chapter 6), along with material from the first three tests, will be tested on the CUMULATIVE FINAL EXAM.

BONUS PROBLEMS / BONUS POINTS: From time-to-time, bonus problems will be assigned. If you don't do them, it will not count against you; however, if you do them, it will boost your homework and/or test average. Also, from time-to-time bonus points will be awarded for good work. Such points will also help your grade average. [top]

FINAL EXAM: The Final Exam will be cumulative. It will be given in this room MONDAY, JULY 22, 2013, between 7:00 am and 8:45 am in our regular classroom, SM118. No one will be permitted to begin the EXAM after the first person has left the room.

There will be no early exam, no late exam, and no make-up exam! IF YOU MISS THE FINAL EXAM, IT IS AN AUTOMATIC "F" IN THE COURSE. [top]

MAKE-UP POLICY AND DUE-DATES: UNLESS THERE IS A VERY, VERY GOOD EXCUSE AND/OR UNLESS PRIOR ARRANGEMENTS HAVE BEEN MADE, there will be no "late" or "make-up" homework, quizzes, or bonuses. All work is due at a "time certain," and late work will not be accepted. Any missed assignment gets a zero.

I will drop 10% of your Turn-In Homework scores, and I will drop 10% of your in-class Quiz scores to compensate for this "zero-tolerance" policy. But I will drop NO notebook grade!

If you miss one test, I may give a "make-up" test for the missed test if and only if you have a very good, documented reason for missing the test.

I repeat — No Notebook-Homework grade will be dropped, and no late Notebook will be accepted. [top]
CLASSROOM POLICY:

1. No eating, drinking or smoking is allowed in classrooms.
2. Please place all trash in the appropriate container.
3. Please turn off or silence your cell phone before entering the classroom.
4. Please, No texting in class.
5. When the class has started, I expect and require that you give me your undivided attention. The only talking that should go on is my instruction and explanations, my questions and answers to you, and your questions and answers to me. If you have a question, please ask me, not your neighbor. If I decide that I want your neighbor to help you, then I shall say so. What I have to tell you is important, and I want you to listen, pay attention, take notes, and understand — all at once. This requires concentration (perhaps even multi-tasking, and peripheral distractions are detrimental to your learning process).

OUTSIDE HELP: It's my guess that only about 25% – 33% of your learning of Calc1 will occur in the classroom. As you read and study the material, and as you work on your homework, you will probably need outside help. I enjoy helping students in small groups or in a one-on-one setting. As a matter of fact, I think that all the teachers here at TCC love to give extra help. Just come by my office during my office hours or by appointment, and I'll help you. It would be best if you come to me with specific questions after you have read the material and tried the examples. Then we can use our time efficiently.

LEARNING COMMONS: The TCC Learning Commons, located in LC 30, www.tcc.fl.edu/learningcommons, phone: 850.201.8193, provides one-stop convenient access to expanded learning assistance and resources. The Math and Science area offers support in mathematics and science. Students can work independently or in small groups while having access to resources including: trained tutors, specialists and learning assistants, videos, textbooks, calculators, an open-access computer lab and much more.