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| **Dept of Mathematics_logo** | **Image2** |

**MATH 1106: ELEMENTARY APPLIED CALCULUS**

**Summer Semester 2015**

**Instructor – James Chu**

**jchu2@kennesaw.edu**

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| **CRN** | **Days** | **Time** | **Course Num/Sec** | **Location** |
| 50996 | T/R | 05:00 PM-7:45 PM | MATH 1106/05 | University College -200 |

# A Course in the General Education Program

**Program Description**: The General Education Program at KSU offers a common academic experience for all its students. In a series of interrelated courses in the liberal arts and sciences, it provides the opportunity for them to acquire the intellectual skills and knowledge characteristic of educated persons in a diverse, global community. Thus, it lays the foundation for success in their academic, professional, and personal arenas. Whereas the major program contributes depth to a college education in a designated specialization, the General Education Program provides breadth of understanding by providing an introduction, connection, and integration to a variety of disciplines needed by educated persons.

**Program Goals**: The General Education Program at KSU has four goals. During the course of the program, students should achieve the following:

* Demonstrate knowledge and understanding of general education disciplines.
* Demonstrate proficiency in communication.
* Demonstrate skills in inquiry, critical thinking, analysis, and problem solving through scholarly and/or creative activity across the general education disciplines.
* Demonstrate an understanding of ethics, diversity, and a global perspective.

MATH 1106 satisfies one of Kennesaw State University’s general education program requirements. It addresses the Natural Sciences learning outcome. This learning outcome states:

**NATURAL SCIENCES**: Students apply the scientific method to analyze data related to natural phenomena found in everyday life.

For more information about KSU’s General Education program requirements and associated learning outcomes, please visit the topic "University-Wide Degree Requirements" in the KSU Undergraduate Catalog.

**Course Description**:

**MATH 1106 - Elementary Applied Calculus**

**3 Class Hours**

**0 Laboratory Hours**

**3 Credit Hours**

***Prerequisite:*** ***C or better grade in MATH 1111, MATH 1112 or MATH 1113.***

Uses techniques of college algebra and elementary calculus to analyze and model real world phenomena. The emphasis will be on applications using an intuitive approach to the mathematics rather than formal development. Topics include graphs, derivatives, and integrals of functions. The course incorporates collaborative learning, oral and written reports, and technology.

**Expected Learning Outcomes**:

1. The student will demonstrate an understanding of the relationship between slope, average rate of change, instantaneous rate of change, and the derivative.
2. The student will demonstrate an understanding of the numeric, graphical and algebraic determination of limits.
3. The student will be able to find the derivative of a function using the appropriate technique from the following: power rule, product rule, quotient rule, chain rule.
4. The student will be able to find relative minimums and/or maximums, absolute minimums and/or maximums and the inflection point using differentiation.
5. The student will be able to find the derivative of exponential and logarithmic functions.
6. The student will be able to solve application problems involving optimization, elasticity of demand, exponential growth, and exponential decay using the concepts of differentiation.
7. The student will demonstrate an understanding of the relationship between the derivative and the definite integral of a function.
8. The student will be able to use the Fundamental Theorem of Calculus to determine the definite integral of a function.
9. The student will be able to calculate the area between two curves using the definite integral.
10. The student will be able to solve application problems involving average value, present value, future value, consumers' surplus and producers' surplus using the definite integral.

**Time Line:**

Class begin: May 28, 2015

Last day to withdraw: June 24, 2015

July 3rd, Holiday

July 23rd, Last day of class

July 24 –July 28, Final Exam

**Attendance Policy:**

Absences will tend to make it more difficult for student to successfully complete the course; therefore, students are expected to attend all class sessions and arrive to class on time. All late arrival students must report to Instructor during the class break time to correct your attendant record. No attendant record will be changed after the class is over.

 **e-Mail:**

 Students are responsible to read Instructor’s e-mail once a day minimum, twice a day is the standard.

**Textbook***: Calculus and Its Applications, Tenth Edition,* by Marvin L. Bittinger, David Ellenbogen, and Scott Surgent.

**Calculator:** TI-83, TI-83+, or TI-84

MyMathLab is strongly recommend for this course. MyMathLab course designated for their class section. See attached Appendix A for more information on how to register with MyMathLab.

**Online Resource:** MyMathLab (includes access to the complete eText version of *Calculus and Its Applications, Tenth Edition*). Used for required homework. New books purchased at the KSU and General bookstores should come bundled with a subscription to MyMathLab. Anyone just wanting to purchase the subscription to MyMathLab (without purchasing the textbook) can either purchase a MyMathLab registration code at the bookstore, or present their plastic online at the MyMathLab website (www.mymathlab.com) to subscribe.

**Instructor’s MyMathLab Course ID:** chu65373

**CLASSROOM BEHAVIOR**

Inappropriate Classroom behavior includes, but not limited to, the following:

* Verbally or physically threatening or harassing other students, instructor, or staff.
* Disobeying the reasonable direction of Instructor or staff member.
* Damaging, altering, stealing, or using KSU property inappropriately.
* Fighting or challenging to fight, running, pushing, shoving, or throwing objects of any kind.
* Making loud disruptive noises of any kind.
* Engaging in any form of sexual misconduct, including exposure, offensive touching, or sexual harassment of other students or staff.
* Engaging in any activity in violation of Federal, State, local or other applicable law, or KSU policy.
* Operate Cell phone in the class room.

**HOMEWORK, QUIZZES, AND EXAMINATIONS:**

Homework assignments will be given in class. It is essential for learning that you at least attempt the homework. Home work should be completed within one week of the assignment date. Quiz have two options:

Option 1: 5 quizzes, student can drop 2 of the 5 quizzes, but no make up.

Option 2: 3 quizzes, student allow one make up quiz, but no drop allowed plus home works

There will be three in-class tests, and a Final Exam.

MAKE UP TESTS will be given with medical or other reason beyond the control of the student. The student is responsible for providing satisfactory evidence of such circumstances. Any request for make-up test must be received by the instructor prior to the starting time of any scheduled test. Students are restricted to at most one make-up test per semester. Final Exam has no make up.

For additional help, there are campus-wide resources, such as Math Lab. Encourage student take full advantage of this service.

**TEST PRACTICES**

 When student taking Tests, and Final Exams, students are to be denied the use of the text book, class notes, formula sheets, cheat sheets, or any other similar such materials but calculator is allowed. Formula sheets are allowed during all the quizzes.

**EVALUATION**

Grade distribution will be determined according to the following schedule:

 Home works 0%

Lecture quizzes (5) 20%

 Three tests 20% each

 Final Examination 20%

Any request for make-up test must be received by the instructor prior to the starting time of any scheduled test. Students are restricted to at most one make-up test per semester.

Fifteen minute unannounced quizzes will be given at the end of the class period covering home work and lecture material.

**Extra Credit of 5 points add to your final score:**

 Prefect attendant

 Good work ethics:

Focus.

Participate in class discussing.

keep cell phone out-of-sight.

Self discipline, Manage your education and classes.

Find solution to the problem not excuses.

Respect.

**Grading System**

All institutions of the University System of Georgia shall be on a 4.0 grade point average system. The following grades are approved for use in institutions in the determination of the Grade Point Average:

A Excellent 4.0 Quality Points

B Good 3.0 " "

C Satisfactory 2.0 " "

D Passing 1.0 " "

F Failure 0.0 " "

WF Withdrawal after deadline 0.0 " "

Grades will be assigned according to the following scale ON 100 points basis:

A = 90 - 100 D = 60 - 69

B = 80 - 89 F = 59 and below

 C = 70 - 79

**Math 2260 Final Grade Calculation**

Average of 5 Quizzes : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ X 20%: \_\_\_\_\_\_\_\_\_\_\_\_

Average of 3 Tests : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_X 60%: \_\_\_\_\_\_\_\_\_\_\_\_\_

Final Exam \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_X 20% : \_\_\_\_\_\_\_\_\_\_\_\_\_

Sum \_\_\_\_\_\_\_\_\_\_\_\_\_

Student required to create a spread sheet for the above calculation and update it every week.

The following symbols are approved for use in the cases indicated, but will not be included in the

determination of the grade point average.

**"I"** This symbol indicates that the student was doing satisfactory work but, for

non-academic reasons beyond his control, was unable to meet the full requirements of the course. The requirements for removal of an "I" are left to the respective institutions; however, if an "I" is not satisfactorily removed after three quarters of residence, the symbol "I" will be changed to the grade "F" by the appropriate official.

**"W"** This symbol indicates that a student was permitted to withdraw without penalty.

Withdrawals without penalty will not be permitted after the mid-point of the total grading period (including final examinations) except in cases of hardship as determined by the appropriate official of the respective institution.

**"V"** This symbol indicates that a student was given permission to audit this course.

Students may not transfer from audit to credit status or vice versa.

**"K"** This symbol indicates that a student was given credit for the course via a credit by examination program approved by the respective institution's faculty (CLEP, AP,

Proficiency, etc.)

WITHDRAWAL FROM THE UNIVERSITY OR FROM INDIVIDUAL COURSES AND ACADEMIC INTEGRITY

Fall Term, 2015

## Withdrawal

Students who find that they cannot continue in college for the entire semester after being enrolled, because of illness or any other reason, need to complete an online form. To completely or partially withdraw from classes at KSU, a student must withdraw online at www.kennesaw.edu, under Owl Express, Student Services.

The date the withdrawal is submitted online will be considered the official KSU withdrawal date which will be used in the calculation of any tuition refund or refund to Federal student aid and/or HOPE scholarship programs. It is advisable to print the final page of the withdrawal for your records. Withdrawals submitted online prior to midnight on the last day to withdraw without academic penalty will receive a “W” grade. Withdrawals after midnight will receive a “WF”. Failure to complete the online withdrawal process will produce no withdrawal from classes. Call the Registrar’s Office at 770-423-6200 during business hours if assistance is needed.

Students may, by means of the same online withdrawal and with the approval of the university Dean, withdraw from individual courses while retaining other courses on their schedules. This option may be exercised up until TBD.

This is the date to withdraw without academic penalty for **Fall** Term, 20**15** classes. Failure to withdraw by the date above will mean that the student has elected to receive the final grade(s) earned in the course(s). The only exception to those withdrawal regulations will be for those instances that involve unusual and fully documented circumstances.

**Academic Integrity**

Every KSU student is responsible for upholding the provisions of the Statement of Student Rights and Responsibilities, as published in the Undergraduate and Graduate Catalogs. Section II of the Statement of Student Rights and Responsibilities addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the Department of Student Conduct and Academic Integrity (SCAI), which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimal one semester suspension requirement.

***MyMathLab*** are interactive websites where you can:

1. Self-test & work through practice exercises with step-by-step help to improve your math skills.
2. Study more efficiently with a personalized study plan and exercises that match your book.
3. Get help when YOU need it.MyMathLab include multimedia learning aids, videos, animations,
4. and live tutorial help.

**Before You Begin:**

To register for MyMathLab you will need:

1. **A student access code** (packaged with your new text, sold at your bookstore, or available for purchase with a major credit card at www.coursecompass.com)
2. **Your instructors’ Course ID: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **Your school’s zip code:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. **A valid email address** that you check regularly

**Student Registration:**

1. Enter **http://www.coursecompass.com** in your Web Browser.
2. Under **Students**, click Register.
3. Read the “Before you start” information and click **Next.**
4. Enter your **Course ID** exactly as provided by your instructor and click “**Find Course.**” *Your*
5. *course information should appear. If not, contact your instructor to verify the correct Course*
6. *ID.*
7. Select **Access Code**, type your **Access Code** in the fields provided (one word per field), and
8. click **Next**. *If you do not have an access code, click Buy Now and follow those prompts to*
9. *purchase and register.*

• Read the License Agreement and Privacy Policy and click “**I Accept.”**

• On the Access Information Screen, you’ll be asked whether you already have a Pearson Education Account. Click:

* 1. “**YES**” if you have registered for other Pearson online products and already have a login name and password. Fields will appear for you to enter your existing login information.
	2. “**NO**” if this is the first time you have registered for a Pearson online product. Boxes will appear for you to create your login name and password.
	3. “**NOT SURE**” if you want to check for a pre-existing account and receive an email with your login name and password.

Simply follow the registration screens and enter your information as prompted. You will enter your name, email address, school information, and provide a security question/answer to ensure the privacy of your account.

Once your registration is complete, you will see a **Confirmation** screen (this information will also be emailed to you). Simply print your confirmation (remember to **write down your login name and password**) and you are now ready to Log in and access your resources!

**Logging In:**

1. Go to www.coursecompass.com and click on **Log In**.
2. Enter your **login name** and **password** and click **Log in**.
3. On the left, click on the name of your course.

The first time you enter your course from your own computer and anytime you use a new computer, click the **Installation Wizard** or **Browser Check** on the Announcements page. After completing the installation process and closing the wizard you will be on your course home page and ready to explore your MyMathLab resources!

**Need help?**

Contact Product Support at **http://www.mymathlab.com/student-support** for live CHAT, email, or phone support.