**Georgia Highlands College**

**Course Syllabus ̶ Math 2261, Calculus**

**Fall Semester 2018**

**Course:**MATH 2261, Calculus, 4 credit hours

                    CRN 80055, TR 9:00 am - 10:50 am, Room W-116

**Prerequisite:** MATH 1113 with a grade of C or better

**Course Description:** This course includes a study of functions, limits, derivatives, continuity, the chain rule, implicit differentiation, related rates, differentials, local extrema, graphing techniques, monotonicity, concavity, max-min applications, infinite limits, the mean value theorem, antiderivatives, differential equations, sigma notation, the definite integral and areas in the plane.

**Instructor:**    Kelly Shane

**Office:**          Office W-221, Floyd Campus

**Office Hours:** (Please note that additional office hours are available after class and by appointment. Students are strongly encouraged to schedule a meeting with the instructor whenever necessary to discuss class policies or course material.)

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| --- | --- |
| **DAY** | **TIME** |
| M | 7:30 am – 8:15 am  11:00 am – 12:30 pm |
| T | 7:30 am – 8:45 am  11:00 am – 12:30 pm |
| W | 7:30 am – 8:15 am  11:00 am – 12:30 pm |
| R | 7:30 am – 8:45 am  11:00 am – 12:30 pm |

**Contact Information:**

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| --- | --- |
| Direct Number to Office | 706.368.7750 |
| E-mail Address | [kshane@highlands.edu](mailto:kshane@highlands.edu) **(Try email first.)** |
| Web Site Address | <http://www.highlands.edu/site/faculty-kelly-shane> |
| **Note: Instructor will not be using D2L system in this course** | |

**Textbook:**      Calculus I: Early Transcendental Functions, 6th Enhanced Edition, Larson and Edwards, ISBN: 9781285858265

**Homework Program:** WebAssign <http://www.webassign.com>

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| Here are the class keys that students in each section will need to enroll themselves: | | |
| **Instructor** | **Section** | **Class Key** |
| Kelly Shane | MATH 2261, section 80055 | highlands 3157 5661 |
|  | | |

**Calculator Requirement:**

Each student taking this course needs access to a TI-83/TI-84 or equivalent graphing/scientific calculator.   Students will use their calculator while participating in class, taking exams, and completing homework exercises.   Please note that sharing calculators during graded assignments is not permitted. Other electronic devices may not be used during exams or quizzes — usage of such devices will result in an automatic F on the exam or quiz.

**Course Content:**       Selected sections from chapters 1 – 5, 8.

**Grading Policies:**

* **Exams (80%)**
  + Four exams and a final will be given during the semester. Each exam and the final will count 100 points.
  + There will be no make-up exams.
  + The final exam will be cumulative. If the score on the final is higher than the student’s lowest exam grade, the grade will be replaced with the score from the final.
  + **Date of Final:** Wednesday, December 13, 9:30 am
* **WebAssign Homework/Bookwork (10%)**
  + Homework will be assigned every class from WebAssign and/or from the textbook.
  + Computer homework/bookwork will be due the date of the next class meeting.
  + If a student cannot complete the online homework on time, he or she can finish the assignment within a week using the automatic extension in WebAssign.
  + Students using the extension will lose 20% per day of credit to questions completed after the due date.
* **Daily Quizzes (10%)**
  + A quiz over the previous class’ material will be given every class meeting at the beginning of class.
  + It will be open notes.
  + It must be written in pencil.
  + Show steps for full credit.
  + A make-up quiz will only be given if student contacts instructor before class to set it up.
  + The 3 lowest quiz grades will be dropped.

The usual grading scale (90%<A<100%, 80%<B<90%, etc.) will apply.

**Students who simply quit attending class without officially withdrawing will receive a grade of F in the class.**

Additionally, students are encouraged to retain copies of all graded coursework returned during the semester.  The coursework will aid students in preparing for the final exam and will serve as evidence of academic performance throughout the semester.

**The instructor retains the prerogative of altering the above plans as circumstances dictate.**

**Academic Policies:**

**Last Day to Withdraw without Academic Penalty**: October 22

Withdrawals after this date are subject to approval by the Vice President for Academic Affairs and will be issued only in cases of extreme emergency or hardship.

**Early Warning Program:** Georgia Highlands College requires that all faculty members report their students' progress throughout the course of the semester as part of the institution-wide Early Warning Program (EWP).  The objective of the program is to support academic success by reviewing early indicators of satisfactory student progress.  In accordance with EWP, faculty members provide the Registrar's Office with academic reports of each student enrolled in their course(s) at checkpoints staggered throughout the semester.  The following success factors are reported at their corresponding checkpoint:

* Week 2: Notification of Non-attendance
* Week 6: Satisfactory or Unsatisfactory Progress

**Student Learning Outcomes:**

**Goals:**

* Students will interpret and apply mathematical information, concepts, and principles embedded in verbal, numerical, graphical, and symbolic representations.
* Students will use appropriate models and quantitative methods to analyze data, explore relationships among variables, and find missing information.

**Student Learning Outcomes**

* Students will be able to solve equations.
* Students will be able to solve inequalities.
* Students will be able to graph functions.
* Students will be able to interpret information presented graphically.
* Students will be able to express numbers appropriately in a variety of ways based on context.
* Students will be able to rewrite algebraic expressions appropriately in a variety of ways based on context.
* Students will be able to use set notation in context.
* Students will be able to calculate rates of change and interpret its meaning using multiple representations.
* Students will be able to model scenarios or data mathematically to solve
* quantitative problems.
* Students will be able to use technology appropriately.
* Students will be able to apply logical, mathematical reasoning.
* Students will be able to calculate and interpret the meaning of limits.

These outcomes correspond to the student learning outcomes approved to support the general education goals related to mathematics.

**Topics Covered:**

* Limits
* Techniques for computing limits
* Infinite Limits
* Limits at Infinity
* Continuity
* Difference quotients and the definition of derivative
* Differentiation Rule
* Product, Quotient and Chain Rules
* Derivatives of trigonometric functions
* Implicit Differentiation
* Related Rate Applications
* Derivatives of exponential and logarithmic functions
* Applications of the derivative
* Maximum and minimum problems
* Optimization
* Linear approximation and introduction to differentials
* Mean Value Theorem
* L’Hopital’s Rule
* Antidifferentiation
* Approximating area under curves
* Definite Integrals
* Fundamental Theorem of Calculus

**Class Attendance & Make-up Exams:**

Students are **expected** to attend each and every scheduled class session. Since lectures begin promptly at the scheduled time, students are encouraged to avoid arriving late to class. Attendance will be reflected in students’ grades through quiz grades.

**Students absent for a class will not be allowed to make up a quiz unless they contact the instructor BEFORE the missed class AND the instructor gives the student permission. Students must make arrangements PRIOR to the scheduled class.**

**There will be no make-up exams. If a student needs to miss an exam, they may discuss with the instructor the possibility of taking it BEFORE the exam date. No exams will be administrated after their given date, and students who do not show up will receive a zero on the exam.**

**Extended Absence Policy:**

Students, who have circumstances that prevent them from continuing to attend classes over an extended period of time, sometimes request that the faculty member permit them to submit work in absentia to receive credit to complete the course. If the concurrent absences will constitute more than 15% of the class sessions for the term, then written permission from the Academic Dean is required before any course assignments can be completed while missing class.  The student must be in good academic standing in the course to make the request.  All approved coursework must be completed by the end of the semester in which the course was begun.

**Academic Dishonesty:**

Cheating will not be tolerated in this class.  If the instructor suspects a student of cheating, the instructor will notify the student of the allegations outside of class.  The allegations will be referred to the Director of Student Life for appropriate action.  The procedures and penalties implemented both by the instructor and the Director of Student Life shall be in accordance with the college's Academic Integrity Policy.  The policy can be accessed on-line at

[http://www.highlands.edu/subwebs/academicaffairs/academicintegritypolicy.htm](http://www.floyd.edu/subwebs/academicaffairs/academicintegritypolicy.htm)

**Americans with Disabilities Act Compliance:**

If anyone in the class feels that he/she needs accommodation due to a disability, please feel free to discuss this with the instructor early in the term. Georgia Highlands College has resources available for students with certain disabilities. Accommodations may be made (such as providing materials in alternative formats, assuring physical access to classrooms or being sensitive to interaction difficulties that may be posed by communication and/or learning disabilities) through Student Support Services on all campuses. For more information please contact 706-368-7536.

**Tobacco-Free Campus:**

Georgia Highlands College prohibits the use of tobacco products on any property owned, leased, or controlled by GHC. All faculty, staff, students, visitors, vendors, contractors, and all others are prohibited from using any tobacco products (i.e., cigarettes, eCigarettes, cigars, smokeless tobacco, snuff, chewing tobacco, etc.) while on GHC property.

**Weapons Policy:**

For guidance on HB280 Campus Carry, please visit the USG website: www.usg.edu/hb280. In addition, please refer to the “Weapons” section of your student handbook at https://www.highlands.edu/wp-content/uploads/2017/08/Georgia-Highlands-2017-Web-with-Cover.pdf

**Special Note to Students Receiving Financial Aid:**

This message applies only to students receiving financial aid**:**  Federal regulations state that if a student did not attend classes and received failing grades, then the grades were not earned and financial aid needs to be reduced accordingly.  **Please be advised that any student receiving a 0.00 GPA will be required to prove that the 0.00 GPA was earned by attending classes or completing requirements for each class**.  Students who have earned at least one passing grade for the semester will not be affected by this regulation.  If a student has properly withdrawn from all classes, the student’s financial aid should be adjusted from the time they signed the withdrawal form.

**In Conclusion:**

If you have any questions, comments, or concerns during the semester, please feel free to contact me.