Term: (Fall 2019) 2nd 08-Week Course
Course: MATH-1325-48310
Course Dates: 10/22/2019 – 12/12/2019
Class Location: room #C 291

Instructor: Krishna Acharya
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Email: krishnaacharya@dcccd.edu
Office & Office Hours: M W 2:00pm -3:00pm
                     T Th 1:00 pm 3:00 pm

STEM Division: C-Building, Room 202 | 972-860-7297

Course Drop Date: 11/29/2019
Certification Date: 10/28/2019
Disclaimer: The instructor reserves the right to amend this syllabus as necessary.


Course Description:
Limits and continuity, derivatives, graphing and optimization, exponential and logarithmic functions, antiderivatives, integration, applications to management, economics, and business. This course is cross listed as Math 1425. The student may register for either Math 1325 or Math 1425 but may receive credit for only one of the two. (3 Lec.)

Prerequisites:
MATH 1324, MATH 1314 or MATH 1414.

Textbook and Other Course Materials:
   Access code + Looseleaf 14/e: 9780134862569
   Standalone Access Card: 9780134880464
2. My Math Lab - Microsoft Windows 7 and 8 users should use one of the following browsers with MyMathLab courses--Chrome, Firefox or Internet Explorer 10 and 9. Click here for other system requirements.

3. <<Graphing calculators are allowed.>>

Core Objectives:
MATH 1325 develops the following Core Objectives:
1. Critical Thinking -to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
2. Communication -to include effective development, interpretation and expression of ideas through written and visual communication.
3. Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Student Learning Outcomes:
Upon successful completion of this course, students will:
1. Apply calculus to solve business, economics, and social sciences problems.
2. Apply appropriate differentiation techniques to obtain derivatives of various functions, including logarithmic and exponential functions.
3. Solve application problems involving implicit differentiation and related rates.
4. Solve optimization problems with emphasis on business and social sciences applications.
5. Determine appropriate technique(s) of integration.
6. Integrate functions using the method of integration by parts or substitution, as appropriate.
7. Solve business, economics, and social sciences applications problems using integration techniques.

Grading Policy:  
<< Hw 30%, Final 30%, 3 tests/drop one 30% & quiz 10% >>

Grading Rationale:  << 90—100 A, 80-89 B, 70-79 C, 60-69 D & below 60 F >>

Policy on Missed Tests and Assignments:  << contact instructor >>

Attendance Policy:
You are expected to regularly attend all classes in which you are enrolled. Students have the responsibility to attend class and to consult with the instructor when an absence occurs.

Standard of Conduct/Classroom Etiquette:
No food, drinks or tobacco products are allowed in Eastfield College classrooms. However; if your class is in a non-lab classroom your instructor may allow for food or drink. << cell phones and similar devices that are not used for the course material are not allowed to use during class.>>

ADDITIONAL RESOURCES
The Math Tutoring Center provides FREE TUTORING to current Eastfield College students enrolled in a Mathematics or Developmental Mathematics course. Students are encouraged to take advantage of this free resource for additional help in their course work. Please visit the Math Tutoring Center located in the Learning Commons in L200, check eastfieldcollege.edu/tutoring, or call 972-860-7174 for more information. In addition, TI-84 calculators are available for daily check-out in the library.
### COURSE OUTLINE:

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Sections</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ch. 9</td>
<td>9.1 – 9.5 and 9.7</td>
<td>Limits, Continuity, Derivatives, Differentiation rules, Marginal</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Analysis.</td>
</tr>
<tr>
<td>Ch. 10</td>
<td>10.1 – 10.7 (All Sections)</td>
<td>Compound interest, Exponential and Logarithmic Derivatives, product rule, quotient rule, chain rule, implicit differentiation, related rates and elasticity of demand.</td>
</tr>
<tr>
<td>Ch. 11</td>
<td>11.1 – 11.6 (All Sections)</td>
<td>First and second derivative test, L'Hopital's rule, curve sketching and optimization problems.</td>
</tr>
<tr>
<td>Ch. 12</td>
<td>12.1, 12.2, 12.4, 12.5</td>
<td>Antiderivative, integration by substitution, the definite integral and the Fundamental Theorem of Calculus.</td>
</tr>
<tr>
<td>Ch. 13</td>
<td>13.1 – 13.2.</td>
<td>Area between curves and Applications in Business and Economics.</td>
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Revised 06/29/19