**VALENCIA COLLEGE**

# CALCULUS 3 MAC 2313

**COURSE SYLLABUS AND GRADING POLICY**

**This syllabus is an agreement between the student and the instructor. By enrolling in and then attending this course, the student agrees to and accepts the terms and conditions of this agreement. It is the responsibility of the student to carefully read this syllabus/agreement in its entirety and to adhere to all policies and procedures within the syllabus.**

**COURSES INFORMATION:**

**Calculus with Analytic Geometry – 3 (MAC2313), Spring 2020 (Face-to - face)**

|  |  |  |  |
| --- | --- | --- | --- |
| CRN | Class meeting Time | Location | Final exam: |
| 20338 | MW 11:00 -12:50 pm | EC 8 -242 | Date: 04/22/2020  Time: 10:00 – 12:30 pm  Location: EC 8 - 242 |

**INSTRUCTOR:** Zainulabdeen. A. Wakeel

**PHONE:** 407- 582 – 2343

**OFFICE:** Room 8-202 (407-582-2343): Math Dept. 407-582-2366

**E-MAIL :** azainulabdeen@valenciacollege.edu

**STUDENT ENGAGEMENT HOURS:**

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Mondays : 8:30 – 10:45 am (8 - 202)

Tuesdays : 9:25 – 9:55 am (8-202) &1:00 – 2:30 pm Math support Center (Building- 4, First floor)

Wednesdays: 8:30 – 10: 45 pm (8- 202)

Thursdays : 9:25 – 9:55 am (8-202)

Fridays : 7:30 – 12:30 pm (Online at azainulabdeen@valenciacollege.edu/(407)437-0843)

**TEXT :** Multivariable calculus, MAC 2313

Wiley Custom Learning Solutions ( ISBN: 978-0-470-88861-2)

**CALCULATORS:** TI-83/84 or any other graphing calculator is required for this course.

TI-84 is the model that will be used by the instructor in class. (Any calculator with a built-in CAS such as the TI -89/92 will not be allowed to use during in-class tests.)

**COURSE DESCRIPTION:** MAC 2313 is a 4 credit hour course. The prerequisite for this course: MAC2312. This is the third course in a three courses sequence intended for engineering, science, and math majors. Each day the first part of the class meeting will be spent discussing student questions about the homework assignment. Topics include limits and continuity, average and instantaneous rate of change, differentiation and integration of algebraic, trigonometric, exponential and logarithmic functions, curve sketching, and applications of derivatives and integrals.

**HOMEWORK:** A list of homework problems are included in the syllabus. Students should plan to spend a minimum for 1 to 2 hours per day studying and completing homework problems and other assignments. Students are encouraged to work as a group in doing their homework/daily assignments; however, each student should write-up their work individually. **Answers that are not supported by required steps may not be honored.** Questions are welcomed in the class period pertaining to those assigned problems

**GRADING POLICY:** Grades will be based on 4 in-class tests (400 points), Quizzes and any other assignments (50 points), a comprehensive final exam (100 points). If the score from the final exam is higher than that of any of the in-class tests; the final exam will replace the lowest in-class test score (final exam will be counted twice in this case).

**No makeup exam** **will be given**, however in **extreme emergency** cases, with **verifiable documents**, a makeup exam can be arranged (for the same topics but not necessarily with the same standard of a regular test). This will be accommodated **only once during the semester per student** **and before the next class meeting after the missed tes**t. If you know in advance that you have a **valid reason** for not taking a scheduled test, please contact me prior to the test time. Standard grading scale will be used in arriving at your final grade for the course.

**Any college student should be able to compute their own grade, do not rely on me to compute your average grade throughout the semester. Your average can be found by taking your total points and dividing by the total possible points at any given time.**

**FINAL EXAM:** A comprehensive Final Exam will be given during the final exam week. (the date, time and location of your final exam is given to you on the first & assignments page of the syllabus). **If you are absent on the day of Final Exam, you will be assigned a zero for your final exam.**

**ATTENDANCE:** Regular attendance is expected. If you miss a class, be sure to contact another member of your class (or group). I recommend that you get the names and telephone numbers of at least three (3) students in the class. You are responsible for all materials discussed in class, whether you are present or not. This includes changes in assignments, exam dates, etc. If you must arrive late or leave early, it is courteous to speak privately with the instructor about your reasons for doing so. If lack of attendance (4 or more) is affecting your grade in the course, then you may be withdrawn (not necessarily) from the course in accordance with the college policy. **Tardiness and leaving early my be recorded as absence.**

**Although an instructor has the ability, it is not the responsibility of the instructor to withdraw a student from his class. It is up to the student to take appropriate actions based on his/her situation. No student will be withdrawn from class by the instructor based on performance and/or request from a student.**

**Tardiness:** Being late to class or leaving early is a disruption to the class and is discourteous to the professor and the other students. All students are expected to stay for the entire class period. **If you are more than 10 minutes late for the class (sometimes the door will be locked after 10 minutes), please wait and see the instructor after the class instead of entering the class late. This 10 -minutes time rule is strictly applied for all the exams and assignments, including the final exam.**

**WITHDRAWAL POLICY:** Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals), a student who withdraws from class before the established deadline for a particular term will receive a grade of “W”. A student is not permitted to withdraw after the withdrawal deadline. A faculty member MAY withdraw a student up to the beginning of the final exam period for violation of the class attendance policy. A student who is withdrawn by faculty for violation of the class attendance policy will receive a grade of “W”. Any student who withdraws or is withdrawn from a class during a third or subsequent attempt in the same course will be assigned a grade of “F”. For a complete policy and procedure overview on Valencia Policy 4-07 please go to: please see below. **WITHDRAWAL DEADLINES:** No fee withdrawal: 01/13/2020

Withdrawal to receive a “W”: 03/20/2020

**NO SHOW PERIOD:** The instructor may withdraw Students, who do not show up for classes during the first week.

**Calculus – 3 MAC 2313 Daily Assignments**

The problems on this list and any other problems that are assigned in class are to be done on a day-to-day basis as we progress through the course. Some Homework problems are collected, and some are verified through inclass quizzes.

|  |  |  |
| --- | --- | --- |
| Sections | Topics | Homework problems |
| 12.1 | Functions of Two Variables | 2, 6, 11, 13, 27, 32, 33, 38, 49 |
| 12.2 | Graphs and Surfaces | 3, 4, 5, 6, 10, 15, 31 |
| 12.3 | Contour Diagrams | 5, 6, 7, 8, 9, 10, 14, 16 |
| 12.4 | Linear Function | 1, 2, 3, 4, 9, 10, 11, 13, 29 |
| 12.5 | Functions of Three Variables | 1, 3, 7, 9, 11, 13, 15 |
| 13.1 | Displacement Vectors | 11, 13, 15, 17, 21, 23, 32, 38, 40, 41 |
| 13.2 | Vectors in General | 11, 13, 15, 17, 21, 22 |
| 13.3 | The Dot Product | 7, 8, 11, 14, 16, 18, 19, 21, 27, 31, 35, 39 |
| 13.4 | The Cross product | 4, 6, 7, 9, 11, 12, 15, 17, 23, 25, |
|  | **Test - 1** | **Date: 01/29/2020** |
| 14.1 | Partial Derivatives | 1, 2, 3, 17 |
| 14.2 | Computing Partial Derivatives | 1, 2, 3, 5, 7, 8, 9, 10, 24, 25, 26, 31, 32, 41 |
| 14.3 | Local Linearity and the Differential | 1, 3, 5, 7, 9, 11, 13, 15, 17, 23, 25 |
| 14.4 | Gradients and Directional Derivatives-1 | 1, 3, 7, 9, 11, 14, 17, 19, 21, 23, 25, 27, 48 |
| 14.5 | Gradients and Directional Derivatives-2 | 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 39, 41, 43 |
| 14.6 | The Chain Rule | 1, 3, 5, 6, 7, 9, 11, 13, 14, 15, 20, 22 |
| 14.7 | Second Order Partial Derivatives | 1, 2, 3, 5, 6, 9, 11, 13, 15, 17, 19, 33, 35 |
| 15.1 | Critical Points | 5, 7, 9, 11, 13, 14, 15, 17, 19, 28, 29, 31 |
|  | **Test-2** | **Date: 02/24/2020** |
| 16.1 | The Definite Integral in Two Variables | 7, 9, 11, 12 |
| 16.2 | Iterated Integrals | 1, 3, 5, 7, 9, 10, 11, 13, 15, 17, 33, 34, 35, 36, 37 |
| 16.3 | Triple Integrals | 5, 7, 9, 11, 13, 29 |
| 16.4 | Integrals in Polar Coordinates | 1, 2, 3, 4, 5, 7, 9, 11, 15, 19, 21 |
| 16.5 | Integrals in Cylindrical Coordinates | 3, 5, 7, 9, 21, 23, 25, 27, 31, 37 |
|  | **Test-3** | **Date: 03/25/2020** |
| 17.1 | Parametrized Curves | 1, 3, 5, 7, 9, 11, 18, 19, 21, 27, 35, 39, 49 |
| 17.2 | Motion, Velocity & Acceleration | 1, 3, 5, 7, 9, 11, 13, 15, 19, 27, 29 |
| 17.3 | Vector Fields | 1, 3, 5, 11, 13, 17 |
| 18.1 | The Idea of Line Integrals | 7, 9, 11, 11, 13, 15, 17, 19, 21 |
| 18.2 | Line Integrals Over Parametrized Curves | 3, 5, 7, 9, 11, 13, 15, 17, 21 |
| 18.3 | Gradient Fields | 13, 15, 17, 19, 21, 23 |
|  |  |  |
|  | **Test-4** | **Date: 04/13/2020** |
| **Final Exam** | **Time: 10:00 - 12:30 pm** | **Date: 04/22/2020, Location: 8 - 242** |

**STUDENT CODE OF CONDUCT:** All students are expected to be in compliance with Valencia College’s policy on student code of conduct.

<http://valenciacollege.edu/generalcounsel/policy/documents/Volume8/8-03-Student-Code-of-Conduct.pdf>

**ACADEMIC HONESTY:** All students are expected to be in compliance with Valencia College’s policy on academic honesty.

<http://valenciacollege.edu/generalcounsel/policy/documents/8-11-NF-NN-Academic-Dishonesty.pdf>

**WITHDRAWAL POLICY:** <http://valenciacollege.edu/generalcounsel/policy/documents/Volume4/4-07-Academic-Progress-Course-Attendance-and-Grades-and-Withdrawals.pdf>

**EAST CAMPUS LEARNING ASSISTANCE RESOURCES:** Tutoring services are provided on Valencia College’s East campus at the Learning Support Center in Building 4 – Room 101. The East Campus Learning Support Center strives to provide a safe, inclusive learning environment that motivates students to maximize learning opportunities, grow toward independence, and discover the lifelong learner within. [https://valenciacollege.edu/students/learning-support/east](https://valenciacollege.edu/students/learning-support/east/)

* **Math Support at the Learning Support Center**: The Math Center in Building 4 – Room 102 provides individual assistance to all Valencia students enrolled in any math course. Resources include walk-in tutoring, homework assistance, group tutoring, final exam reviews, PERT information, academic refreshers, and much more. The SPA (Specialized Prep Area) provides specific resources to students in entry level mathematics courses including study sheets for most mathematical concepts. Please check hours of availability at the following link: <https://valenciacollege.edu/students/learning-support/east/math/index.php>
* **Valencia’s Math Help 24/7:** Valencia Math professors have created pen-casts and videos of common lessons to help you learn the concepts being presented in class. This resource is located at <https://valenciacollege.edu/academics/departments/math-east/math-help.php>

Click on your course to view your lessons. Some lessons have more than one professor’s perspective; watch more than one!

* **Smart Thinking (Online Tutoring):** Smarthinking is an online tutoring tool available to all of Valencia’s students, and math tutors are available 24/7. Students can access Smarthinking through the Courses tab in Atlas, in the My Courses channel. Students have an eight hour limit of usage per semester, and therefore, Smarthinking is best used as a back up to on-campus services and support, not as a replacement. There are Smarthinking phone applications for both iOS and Android devices. <https://valenciacollege.edu/students/learning-support/smarthinking-online-tutoring.php>
* **Collegewide Math Support information:** <https://valenciacollege.edu/students/learning-support>

**STUDENTS WITH DISABILITIES:** Valencia students who qualify for academic accommodations must provide the professor with a Notification to Instructor (NTI) from the Office for Students with Disabilities (OSD). Students are expected to discuss their specific needs with the professor, preferably during the first two weeks of class. OSD determines accommodations based on appropriate documentation of disabilities. East: Bldg. 5, Rm. 216 Ph: 407-582-2229 Fax: 407-582-8908 TTY: 407-582-1222. Here are the campus locations and contact numbers: [https://valenciacollege.edu/students/office-for-students-with-disabilities](https://valenciacollege.edu/students/office-for-students-with-disabilities/)

**NOTE TO INTERNATIONAL STUDENTS (F-1 OR J-1 VISA):** Please be advised that withdrawal from this course due to attendance may result in the termination of your visa status if you fall below the full-time enrollment requirement of 12 credit hours. Contact Valencia’s International Student Services office for more information. <http://valenciacollege.edu/international/>

**CORE COMPETENCIES OF A VALENCIA GRADUATE:**

Valencia’s Student Core Competencies are complex abilities that are essential to lifelong success. This course will help you to develop and demonstrate the abilities to:

1. THINK clearly, critically, and creatively;
2. COMMUNICATE with others verbally and in written form;
3. Make reasoned VALUE judgments and responsible commitments;
4. ACT purposefully, reflectively, and responsibly.

Due to the nature of these global competencies, many of the problems will be presented in the context of an application. These applications will require students to select appropriate information from the problem and communicate effectively in order to explain and/or describe how the student used the skills they are learning to arrive at an appropriate solution for the problem.

**STUDENT FEEDBACK ON INSTRUCTION:** Near the end of the term, students will receive an invitation through their Valencia ATLAS email account asking them to complete the Student Feedback on Instruction (SFI). This survey provides Valencia College professors with feedback on students’ experiences in courses and helps them to continually improve their courses. The results are released only *after* grades are submitted and students’ names are *not* included in the results – all responses will be anonymous.

**STUDENT ASSISTANCE PROGRAM:** Valencia College has contracted with a private and confidential counseling service (**Bay Care Behavioral Health Student Assistance Program (SAP)**) to provide FREE short-term assistance to students who need to resolve problems that are affecting their college performance. Examples might include: stress, relationship/family issues, alcohol/drug problems, eating disorders, depression, and gender issues. Students who are experiencing any of these issues and who are enrolled in credit classes at Valencia should call the toll-free number 1-800-878-5470 to speak to a professional counselor. If needed, the counselor may refer the student to appropriate resources or to speak face-to-face with a licensed counselor. For more information, call or visit a Counselor in Student Services on any campus.

**SUPPORT FOR STUDENTS WITH FOOD/HOUSING/FINANCIAL NEEDS***:* Any student who has difficulty accessing sufficient food to eat, or who lacks a safe and stable place to live, and believes this may affect his or her performance in the course, is urged to meet with a Counselor in the Advising Center for information about resources that may be available from the college or community.

**FERPA** *(Family Educational Rights and Privacy Act)*: FERPA is a Federal law that is administered by the Family Policy Compliance Office (Office) in the U.S. Department of Education (Department). 20 U.S.C. § 1232G; 34 CFR Part 99. FERPA affords students certain rights with respect to their educational records. Valencia College has a firm commitment to protecting the privacy rights of its students. For further information on FERPA, see: <http://valenciacollege.edu/ferpa/default.cfm#whatis>

**TITLE IX:** Valencia College strives to be a place free from all forms of discrimination. Title IX protects students from discrimination based upon sex including protections against sexual violence, domestic violence, and stalking. This also includes protections for students who are pregnant or may become pregnant. If you experience sexual violence, domestic violence, or stalking and would like assistance there are several options available to you. Valencia partners with the Victim Service Center of Central Florida which is a confidential resource available 24/7. They can be reached by calling 407-497-6701. If you would like assistance on campus, you can go to [www.valenciacollege.edu/eo](http://www.valenciacollege.edu/eo) or contact Valencia College’s Title IX and Equal Opportunity Officer, Ryan Kane, by emailing [rkane8@valenciacollege.edu](mailto:rkane8@valenciacollege.edu). If you would like to report to law enforcement, you may visit Campus Security or call 911.

Please note that there are no confidential resources on campus. As your professor, I am required to report any information mentioned in this statement to the appropriate campus resources. This will include your name, and detailed information shared with me. We take privacy very seriously at the College and only those who have a legitimate need to know the information will be provided with this information.

If you have more questions about Title IX or the College’s response, please visit [www.valenciacollege.edu/eo](http://www.valenciacollege.edu/eo).

**DISCLAIMER:** Changes in the syllabus, schedule, evaluation procedures, and/or homework assignments may be made at any time at the discretion of the professor. In case you are absent, it is **your** responsibility to find out what, if any, announcements or changes have been made.