

| Fall 2020 | |
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| Math 21 section 02 (16138); Monday, Tuesday, Wednesday, Thursday; meets synchronously on Blackboard Collaborate Ultra from 8:00AM-9:00AM | |
| Professor R. Sturm; office hours after 12:40PM (by appointment) on ZOOM | |
| Prerequisite: | A grade of "C" or higher in Math 16 |
| Textbook: | Calculus by Larson, Hostetler and Edwards, Alternate 6 th edition, ISBN 0-395-88902-2 |
| Attendance Policy: | If a student fails to submit more than 6 assignments before the given due dates then the student will be considered excessively "absent" and may receive a grade of WU. |
| Mark Distribution: | <p>Online "mathbreeze" homework <i>10%</i> Short answer assignments <i>Redeemly 40%</i> Exams <i>30%</i> <i>Final Exam 20%</i></p> <p>There are no make-up assignments or exams . If a student misses an exam then the final will count in its place.</p> |
| Electronic devices: | Students may use a calculator |
| Email: | Students must communicate only via their KBCC email address. |
| Homework: | Homework is not accepted after the due date |
| Course description: | <ol style="list-style-type: none"> 1. Parametric Equations and Plane Curves 12.1 2. Parametric Equations and Calculus 12.2 3. Polar Coordinates and Polar Graphs 12.3, 12.4 4. Area and Arc Length in Polar Coordinates 12.5 5. Vectors in the Plane 13.1 6. The Dot Product of Two Vectors 13.2 7. Vector – Valued Functions 13.3 8. Space Coordinates and Vectors in Space 14.1 9. The Cross Product of Two Vectors in Space 14.2 10. Lines and Planes in Space 14.3 11. Surfaces in Space 14.4 12. Introduction to Functions of Several Variables 15.1 13. Limits and Continuity 15.2 14. Partial Derivatives 15.3 15. Differential 15.4 16. Chain Rules for Functions of Several Variables 15.5 17. Directional Derivatives and Gradients (optional) 15.6 18. Tangent Planes and Normal lines (optional) 15.7 19. Extrema of Functions of Two Variables 15.8 20. Iterated Integrals and Area in the Plane 16.1 21. Double Integrals and Volume 16.2 22. Change of Variables: Polar Coordinates 16.3 23. Sequences 10.1 24. Series and Convergence 10.2 25. The Integral Test and p-Series 10.3 26. Comparisons of series 10.4 27. Alternating Series 10.5 |

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| | 28. The Ratio and Root Tests | 10.6 |
| | 29. Power Series | 10.8 |
| | 30. Representations of Functions by Power Series | 10.9 |
| | 31. Taylor and Maclaurin Series | 10.10, 10.7 |
| Academic integrity: | Please see: https://www.kbcc.cuny.edu/studentaffairs/student_conduct/Pages/academic_integrity.aspx | |
| “This syllabus, and the course schedule of topics, are subject to change by consideration of the instructor, or by factors outside the instructor’s control” | | |