

**Instructor:** Zdeňka Guadarrama

**E-mail:** [guadarrama@rockhurst.edu](mailto:guadarrama@rockhurst.edu)

**Office:** Science Center 120F (ext. 4526)

**Text:** Complex Analysis by Theodore W. Gamelin

### Course description

This independent study is an introduction to Complex Analysis.

### Meetings

Monday (1 hour) – discussion of readings

Wednesday (1 hour) – discussion and presentation of solutions to selected exercises

### Objectives

- Consolidate the students' understanding of parametrized curves, tangent vectors, arc length, gradients, line integrals, independence of path, and Green's Theorem.

### Grading

Attendance, reading, participation in reading discussions, presentation of theorems. 50%

Written homework, homework discussion, presentation of solutions to selected problems. 50%

### Proposed outline.

Week	Topics
1,2,3	The Complex Plane and Elementary functions
4,5,6	Analytic Functions
7,8,9	Line integrals and Harmonic Functions
10,11,12	Complex integration and Analyticity
13,14,15	Power Series

**Academic Honesty**

Every effort will be made to encourage academic honesty and insure fair and equal assessment of each student. Please refer to page 253 in the University Catalog for definitions and details about academic honesty and plagiarism.

“Rockhurst University is committed to providing reasonable accommodations for students with disabilities. Please contact Sandy Waddell, Director of Access Services (Massman Hall, Room 7, 816.501.4689, [sandy.waddell@rockhurst.edu](mailto:sandy.waddell@rockhurst.edu)) to provide documentation and request accommodations. If accommodations have already been approved by the Access Office, please communicate with the instructor(s) of this course regarding these arrangements by the second week of class in order to coordinate receipt of services”

“Student contact information must be kept current in order to receive important notices from Rockhurst university. Your contact information is online via your OracleWeb account. Please check your local address, local phone number, and emergency contact information on OracleWeb and revise as needed. All important University notices will be sent only to your RU email address. Please check your RU email account in addition to any other email accounts you may have. Accounts are activated at the Computer Services Help Desk.”

“Course withdrawals are the responsibility of the student. The RU Catalog lists the procedures for a student to withdraw from one or all courses and will be upheld. If the student does not process course withdrawal(s) correctly, it will result in a failing grade.”

I reserve the right to make changes to the above stated policies at any point during the semester if I consider it necessary. You will be notified if any changes take place.