1. GOAL
The goal of this course is to achieve a firm understanding of the basic concepts of Analysis. As a continuation of MAT425, we will study sequences and series of functions, transcendental functions, metric spaces and normed spaces, after which we will explore more specific topics such as the Banach Principle, strange attractors, kernels and the wavelet transform, Hausdorff spaces, and fractal concepts.

Students are encouraged to work on problems on their own, as it is very likely to be the only manner in which to achieve an adequate comprehension of the way of analysis.

2. EVALUATION
Problems will be given throughout the semester (a total of ~35). Several hand-ins are possible. The final evaluation will be a take-home final exam. Problems = 75%; Take-home final = 25%.

All problems handed-in must have a cover sheet, be clean and well written on single-sided pages. Each page should have your name, the date, and the full statement of the problem, with each problem on a separate page. Electronic submissions are encouraged.

3. BOOK
We will be using the book The Way of Analysis, by Robert S. Strichartz (Jones & Bartlett). The topics covered in class correspond to Chapters 7-9.

**Sexual Discrimination Reporting**
The University of Maine is committed to making campus a safe place for students. Because of this commitment, if you tell a teacher about an experience of sexual assault, sexual harassment, stalking, relationship abuse (dating violence and domestic violence), sexual misconduct or any form of gender discrimination involving members of the campus, **your teacher is required to report** this information to the campus Office of Sexual Assault & Violence Prevention or the Office of Equal Opportunity. **If you want to talk in confidence** to someone about an experience of sexual discrimination, please contact these resources: For confidential resources on campus: Counseling Center: 207-581-1392 or Cutler Health Center: at 207-581-4000. For confidential resources off campus: Rape Response Services: 1-800-310-0000 or Spruce Run: 1-800-863-9909. **Other resources:** The resources listed below can offer support but may have to report the incident to others who can help: For support services on campus: Office of Sexual Assault & Violence Prevention: 207-581-1406, Office of Community Standards: 207-581-1409, University of Maine Police: 207-581-4040 or 911. Or see the OSAVP website for a complete list of services at [http://www.umaine.edu/osavp/](http://www.umaine.edu/osavp/)