

**Pure Mathematics 455                      Honours Real Analysis I**

Real and complex numbers, topology of metric spaces, sequences and series, continuity, differentiation, Riemann-Stieltjes integration. Rigorous approach throughout.

Course Hours: H(3-1T)

Prerequisite(s): [Mathematics 283](#) or 263; or a grade of B+ or better in [Mathematics 253](#) or [Applied Mathematics 219](#).

Antirequisite(s): Credit for both [Pure Mathematics 435](#) and 455 will not be allowed.

**Suggested Text:** "Principles of Mathematical Analysis" by W. Rudin, Chapters 1-6.

*Syllabus*

<u>Topics</u>	<u>Number of Hours</u>
The Real and Complex Number Systems	5
Topology of Metric Spaces	7
Numerical Sequences and Series	6
Continuity	6
Differentiation	4
Riemann-Stieltjes Integration	6
<b>TOTAL HOURS</b>	<b>36</b>

\*\*\*\*\*