

# MAT 372

## ADVANCED CALCULUS II

**Instructor:** Professor Don Jones, WXMLR 623.

**Time:** TTh 10:30-11:45, LL 221.

**Text:** *The Elements of Real Analysis* 2nd Edition, Robert G. Bartle.

**Prerequisite:** MAT 371.

**Note:** MAT 372 counts as an Advanced Course in Mathematics towards the BS degree and the Stats BS degree.

**Topics:** The course is a multi-dimensional version of MAT 371. It will cover the topology of  $\mathbb{R}^n$ , differentiation in  $\mathbb{R}^n$ , extremum problems, open mapping theorem, implicit function theorem, and integration in  $\mathbb{R}^n$ .