

# **UM101 Aug 3:0**

# **Analysis I**

#### **Instructor**

Arvind Ayyer Email: arvind@iisc.ac.in

#### **Teaching Assistant**

Email:

**Department: Undergraduate** 

Course Time:

Lecture venue:

Detailed Course Page:

#### **Announcements**

### Brief description of the course

For first-year undergraduates. Compulsory

## **Prerequisites**

None

### **Syllabus**

One-variable calculus: Real and Complex numbers; Convergence of sequences and series; Continuity,

intermediate value theorem, existence

of maxima and minima; Differentiation, mean value theorem, Taylor series;

Integration, fundamental theorem of Calculus, improper integrals. Linear

Algebra: Vector spaces (over real and complex numbers), basis and

dimension; Linear transformations and matrices.

#### **Course outcomes**

Introduction to analysis

#### **Grading policy**

20% – Quizzes

30% – Midterms

50% – Final

Assignments

Resources