

Course Details and Evaluation Plan

Course Code	: MA201
Course Title	: Concrete Mathematics
L-T-P	: 3-0-0
Credits	: 3
Teaching Department	: Mathematical and Computational Sciences (MACS)
Evaluation Plan	: 10 % weightage for Quiz-I 25 % weightage for Mid-Semester Exam 15 % weightage for Quiz-II 10 % weightage for Assignment 40 % weightage for End-Semester Exam
Attendance	: Must have at least 75 %
Course Instructor	: Dr. P. Sam Johnson (http://www.sam.nitk.ac.in)

Topics

- Sums and Recurrences, General Methods.
- Finite and Infinite Calculus.
- Floors and Ceilings, Applications.
- Number Theory, Congruences, Chinese Remainder Theorem.
- Generating Functions, Solving Recurrences.
- Special Generating Functions, Convolutions and Exponential Generating Functions.

References

1. **Graham, Knuth and Patashnik**, “*Concrete Mathematics – A Foundation for Computer Science*”, Pearson Education.
2. **Marko Petkovsek, Herbert S. Wilf and Doron Zeilberger**, “*A = B*”, AK Peters Ltd., Wellesley, Massachusetts.
3. **Herbert S. Wilf**, “*Generatingfunctionology*”, Third Edition, AK Peters Ltd., Wellesley, Massachusetts.
