Computational Mathematics

Course Code	Student Workload	Credits	Semester	Frequency	Duration
COM60015	90 Hours	(According to ECTS) 4.5	1	Each odd-semester	16 meetings

1	Types of courses	contact hours	independent study	class size
	Compulsory (Faculty level)	63 Hours	27 Hours	40 students

2 Prerequisites for participation

3 Learning outcomes

IS-ILO-4

Graduates can develop professional careers in computer science based on quality aspects, data-driven decision making, be responsible, and make continuous improvements.

4 Subject aims

- Students are able to explain discrete concepts in the field of computer science
- Students are able to apply logical inference
- Students are able to apply the concepts of sets, relationships and functions
- Students are able to apply the concepts of series numbers, rows and induction
- Students are able to apply the concepts of enumeration, discrete probability, and number theory
- Students are able to apply the concept of recursion
- Students are able to understand matrices and vectors

5 Teaching methods

Lectures, case study, class discussion, presentation

6 Assessment methods

Assignment, mid-term examination, end-term examination, project evaluation, practical-skill assessment

7 This module is used in the following degree programs as well

Computer Engineering (CE), Computer Science (CS), Information Systems (IS),

Information Technology (IT)

8 Responsibility for module

9 Other information

1. Munir, Rinaldi, Matematika Diskrit edisi ke-4 revisi ke-5, Penerbit Informatika Bandung, 2011

	2. Rossen, Kenneth H., Discrete Mathematics and Its Application 7th Edition, McGrawHill, 2012 3. Ema Utami, Sukrisno, 10 Langkah Belajar Logika dan Algoritma Menggunakan Bahasa C dan C++ di GNU/Linux, Penerbit Andi Yogyakarta, 2005 4. Jong Jek Siang. Matematika Diskrit dan Aplikasinya Pada Ilmu Komputer. Edisi Kedua, Penerbit Andi Yogyakarta, 2010