Computer Science Fundamental

Course Code	Student Workload	Credits	Semester	Frequency	Duration
COM60016	60 Hours	3	1	Each odd-semester	16 meetings

1	Types of courses	contact hours	independent study	class size
	Compulsory (Faculty level)	42 Hours	18 Hours	40 students

2 Prerequisites for participation

3 Learning outcomes

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 understand various computer science groups in relation to IT profiles/ professions, basic competencies of IT graduates and basic conceptions of IT fields.
- Students are able to explain about computers that include basic understanding of hardware, software and brainware.
- Students are able to explain several topics of computer science including internet, network, database, software development and security.
- Students are able to apply computational thinking and informatics logic in some examples of computer science cases.
- Students are able to apply the concept of information technology integration in the learning process using some IT utilization
- Students are able to understand some of the trends of technological development and research in the field of computer science.

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. ACM Computing Curricula Computer Science 2013, ACM.
2. Naskah Akademik Kerangka Kualifikasi Nasional Indonesia (KKNI) Rumpun Ilmu Informatika dan Komputer v.1., 2015.
3. Future Works Skill, Institute for the Future, http://www.iftf.org/futureworkskills/
4. Abdul Kadir, Pengantar Teknologi Informasi Edisi Revisi, Penerbit Andi, 2013.