



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Mathematics Department

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Undergraduate Programme in Mathematics

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MODULE HANDBOOK

Module name	Programming I Laboratory
Module level, if applicable	Bachelor
Code, if applicable	MII-1202
Subtitle, if applicable	-
Courses, if applicable	Programming I Laboratory
Semester(s) in which the module is taught	1 st (first)
Person responsible for the module	Guntur Budi Herwanto, M.Cs.
Lecturers	Wahyono, S.Kom., Ph.D. Nia Gella Augoestien, S.Si., M.Cs. Ika Candradewi, S.Si., M.Cs. Guntur Budi Herwanto, M.Cs. Isna Alfi Bustoni, M.Eng. Roghib Muhammad Hujja, S.Si., M.Cs. Aufaclav Zatu Kusuma Frizky, M.Sc. Lukman Awaludin, S.Si., M.Cs.
Language	Bahasa Indonesia
Relation to curriculum	Compulsory course in the first year (1 st semester) Bachelor Degree
Type of teaching, contact hours	Undergraduate degree program: lectures, < 25 students
Workload	Lectures and Labwork: 10x100 = 1000 minutes (100 minutes) per week. 2. Exercises and Assignments: 8 x 20 = 160 minutes (20 minutes) per week
Credit points	1
Requirements according to the examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing this course, the students should have ability to: CO 1. Having knowledge about algorithm and programming definition, implement algorithm maps to algorithmic language, and able to solve the problem which given; CO 2. Having knowledge about C++, able to mapping a logarithmic language to C++, and They can develop a simple program with C++ language; CO 3. be able to solve problems in a logical, understand how to use the control statement, and set the conditions in; CO 4. be able to use loop, know the difference of each type of iteration, and be able to choose the loop that will be used as needed; CO 5. understand the array definition and know how to use it; CO 6. understand the structure description and know Howe to use it; CO 7. have knowledge about sub-program and able to use it; CO 8. have knowledge about function, difference with subprogram, and know how to use it; CO 9. understand about sorting algorithms and know how to implement them in C++; CO 10. Understand about searching algorithms and know how to implement them in C++

Content	Programming Lab I is a compulsory course given to students of the first semester at Department of Computer Science FMIPA UGM. This course provides the knowledge students so that they are able to recognize the definition of programming, translating an algorithm mapping basic concept into algorithmic language, and able to solve its using computer programming.
Study and examination requirements and forms of examination	Midterms examination and Final examination.
Media employed	LCD, whiteboard, websites, books (as references), etc.
Reading List	<ol style="list-style-type: none"> 1. The C Programming Language 2nd Edition oleh Brian W. Kernighan, Dennis M. Ritchie, ISBN-13: -0131103627. 2. Data Structures and Algorithms in C++, 2001, Second Edition oleh Adam Drozdek, ISBN 0-534-37597-9.