# Algoritma Pemrograman

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| Module designation | Algoritma Pemrograman |
| Semester(s) in which the module is taught | 1st semester (odd semester) |
| Person responsible for the module | Ari Hendarno, S.Pd., M.Kom. |
| Language | Indonesia |
| Relation to curriculum | This course is a compulsory course and offered in the 5th semester. |
| Teaching methods | Teaching methods used in this course are:<br>• Lecture (i.e., small group discussions and project-based learning)<br>• Structured assignments (i.e., project development and presentations) |
| Workload (incl. contact hours, self-study hours) | For this course, students required to meet a minimum of 136 hours in one semester, which consist of<br>40 hours for lecture<br>48 hours for structured assigments<br>48 hours for private study |
| Credit points | 3 SKS = 4.5 ECTS |
| Required and recommended prerequisites for joining the module | No prerequisites required |
| Module objectives/intended learning outcomes | 1. Be able to implement the Mathematical theory that has been learned into an agloritma.<br>2. Mastering syntax and semantics in Python to be able to implement programs.<br>3. Able to read and understand an existing algorithm and be able to implement it into the program.<br>4. Be able to design algorithms for simple real-world problems. |

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| Content | **Students will learn about:**<br>1. Phyton Environment<br>2. Syntax<br>3. Function<br>4. Programmer Toolbox<br>5. Operator<br>6. Conditional Execution<br>7. Loop Control<br>8. Data Type<br>File Input/Output |
| Examination forms | Assessment of the learning process according to the following components: Assignments 20%, Project 1 (UTS) 40%, and Project 2 (UAS) 40% |
| Study and examination requirements | **Study and examination requirements:**<br>• Students must be present 15 minutes before the lecture begins.<br>• Students must turn off all electronic devices.<br>• Students are required to notify the lecturer if they are absent from class due to illness, etc.<br>• Students must turn in all classwork before the deadline.<br>• Students must take an exam to get a final grade.<br>• Attend face-to-face lectures at least 80% of the ideal number of meetings<br>• Every student must be active and participatory in lectures<br>**Form of examination:**<br>UTS: Ujian Praktek Coding<br>UAS: Project |
| Reading list | **Main Reference**<br>1. Hahn, Brian H. Valentine, Daniel T. Essential Phyton Fifth Edition. Elsevier.<br>2. Phyton Documentation on Phyton Programing Language<br><br>**Supporting reference**<br>1. Introduction to Programming with Phyton, Coursera Course, https://www.coursera.org/learn/Phyton |