# MODULE HANDBOOK

| | UNIVERSITAS PADJADJARAN<br>FACULTY OF MATHEMATICS AND NATURAL SCIENCES<br>BACHELOR OF BIOLOGY PROGRAMME | COURSE CODE:<br>D10D-1004 |
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| **Module designation** | Biomathematics and Computation |
| **Semester in which the module is taught** | 1 |
| **Persons responsible for the module** | 1. Asep Kuswandi Supriatna<br>2. Nursanti Anggriani. |
| **Medium of instruction** | Indonesian |
| **Relation to curriculum** | Compulsory course |
| **Teaching methods** | Lectures and discussions |
| **Workload** | Total workload          : 5440 minutes = 90.67 hours<br><br>Lecture and discussion  : 2 x 50 minutes x 16 weekss = 1600 minutes = 26.67 hours<br>Exercises                : 2 x 60 minutes x 16 weekss = 1920 minutes = 32 hours<br>Self-study             : 2 x 60 minutes x 16 weekss = 1920 minutes = 32 hours |
| **Credit points** | 2.00 (3.62 ECTS) |
| **Required and recommended prerequisites for joining the module** | - |
| **Module objectives/intended learning outcomes** | 1. Students can explain the concept of real numbers<br>2. Students can explain the concept of limit correctly<br>3. Students can explain the concept of derivative and its application<br>4. Students can explain the concept of integral and its application<br>5. Students can choose the right integrating technique |
| **Contents** | This course discusses the real number system, functions and their types, limit, and continuity of functions, derivatives of functions and their applications, integrals, and their applications, and integrating techniques. |
| **Examination forms** | Quiz, Midterm exam, Assignment, and Final exam |
| **Study and examination requirements** | The minimum attendance in lectures is 80%. Final grades are evaluated based on quiz (20%), midterm exam (30%), assignment (20%), and final exam (30%) |
| **Reading lists** | 1. Purcell, E.J.& Varberg, D 1984 "Kalkulus dan Geometri Analitis", jilid 1, terjemahan edisi 5. Erlangga.<br>2. Stewart, J. 1998. "Kalkulus",jilid 1, tejemahan edisi 4. Erlangga.<br>3. Martono,K. 1999. Kalkulus. Erlangga |