



## Module Description Basic Biology

|                                                               |                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Module designation                                            | Basic Biology                                                                                                                                                                                                                                                                                                   |
| Module code                                                   | 23H04110103                                                                                                                                                                                                                                                                                                     |
| Semester(s) in which the module is taught                     | 1 <sup>st</sup> semester                                                                                                                                                                                                                                                                                        |
| Person responsible for the module (lecturers)                 | ❖ Dr. Nur Haedar, <a href="#">S.Si.</a> , <a href="#">M.Si.</a><br>❖ Muhammad Iqram, <a href="#">S.Si.</a> , M.Sc.                                                                                                                                                                                              |
| Language                                                      | Indonesian language                                                                                                                                                                                                                                                                                             |
| Relation to curriculum                                        | Compulsory                                                                                                                                                                                                                                                                                                      |
| Teaching methods                                              | Lecture, laboratory practice                                                                                                                                                                                                                                                                                    |
| Workload                                                      | Total workload (estimated):<br>❖ 27 hours of lecture<br>❖ 32 hours of exercise<br>❖ 32 hours of independent study<br>❖ 45 hours of laboratory practice                                                                                                                                                          |
| Credit points                                                 | 3 credit points = 4.86 ECTS                                                                                                                                                                                                                                                                                     |
| Required and recommended prerequisites for joining the module | -                                                                                                                                                                                                                                                                                                               |
| Module objectives/ Intended Learning Outcomes (ILO)           | ILO 2. Demonstrates a comprehensive understanding of theoretical concepts and technological literacy related to food science and technology principles and food law to support professional expertise in food science and technology (K)                                                                        |
|                                                               | CLO 1. Explanation of basic concepts in organisms and the interaction of organisms with the environment<br>CLO 2. Implementation of the concepts of metabolism, reproduction, organism coordination, and the application of biotechnology in the development of science in their respective fields              |
| Content                                                       | Concept of biology: basic unit of life, virus, cell, metabolism (catabolism and anabolism), cell division and inheritance, plant reproduction system, animal reproduction system, coordination system (plant and animal), homeostasis, ecology, evolution, classification of living beings, basic biotechnology |
| Examination form                                              | Writing (essay)                                                                                                                                                                                                                                                                                                 |



| Study and examination requirements | <p>Examination requirements: Attendance above 80%</p> <ul style="list-style-type: none"><li>❖ Individual assignment: 10%</li><li>❖ Presentation: 50%</li><li>❖ Laboratory work: 20%</li><li>❖ Examination: 20%</li></ul> <p>Grading:</p> <table><tr><th>Numerical range</th><th>Letter grade</th><th>Conversion value</th></tr><tr><td>85 - 100</td><td>A</td><td>4.00</td></tr><tr><td>80 - &lt; 85</td><td>A-</td><td>3.75</td></tr><tr><td>75 - &lt; 80</td><td>B+</td><td>3.50</td></tr><tr><td>70 - &lt; 75</td><td>B</td><td>3.00</td></tr><tr><td>65 - &lt; 70</td><td>B-</td><td>2.75</td></tr><tr><td>60 - &lt; 65</td><td>C+</td><td>2.50</td></tr><tr><td>50 - &lt; 60</td><td>C</td><td>2.00</td></tr><tr><td>40 - &lt; 50</td><td>D</td><td>1.00</td></tr><tr><td>&lt; 40</td><td>E</td><td>0.00</td></tr></table> <p><i>If student(s) receives(s) a score below 40, student(s) must retake the course</i></p> | Numerical range  | Letter grade | Conversion value | 85 - 100 | A | 4.00 | 80 - < 85 | A- | 3.75 | 75 - < 80 | B+ | 3.50 | 70 - < 75 | B | 3.00 | 65 - < 70 | B- | 2.75 | 60 - < 65 | C+ | 2.50 | 50 - < 60 | C | 2.00 | 40 - < 50 | D | 1.00 | < 40 | E | 0.00 |
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| Numerical range                    | Letter grade                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Conversion value |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| 85 - 100                           | A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4.00             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| 80 - < 85                          | A-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.75             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| 75 - < 80                          | B+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3.50             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| 70 - < 75                          | B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.00             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| 65 - < 70                          | B-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2.75             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| 60 - < 65                          | C+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2.50             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| 50 - < 60                          | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2.00             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| 40 - < 50                          | D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.00             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| < 40                               | E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.00             |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| Reading list                       | <ol style="list-style-type: none"><li>1. Barrett, J.M. 1986. BIOLOGY. Prentice-Hall, Englewood Cliffs, New Jersey</li><li>2. Campbell, N.A., Reece, J.B., Urry, L.A., Cain, M.L., Wasserman, S.A., Minorsky, P.V., Jackson, R.B. 2010., Biology. Edisi kedelapan Jilid 1. Erlangga, Jakarta.</li><li>3. Campbell, N.A., Reece, J.B., Urry, L.A., Cain, M.L., Wasserman, S.A., Minorsky, P.V., Jackson, R.B. 2010., Biology. Edisi kedelapan Jilid 2. Erlangga, Jakarta.</li><li>4. Campbell, N.A., Reece, J.B., Urry, L.A., Cain, M.L., Wasserman, S.A., Minorsky, P.V., Jackson, R.B. 2010., Biology. Edisi kedelapan Jilid 3. Erlangga, Jakarta.</li><li>5. Campbell, N.A., Reece, J.B., Urry, L.A., Cain, M.L., Wasserman, S.A., Minorsky, P.V., Jackson, R.B. 2010., Biology. Edisi kedelapan Jilid 3. Erlangga, Jakarta.</li><li>6. R.B. 2010., Biology. Edisi kedelapan Jilid 3. Erlangga, Jakarta.</li></ol>         |                  |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |
| Date of last amendment             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                  |              |                  |          |   |      |           |    |      |           |    |      |           |   |      |           |    |      |           |    |      |           |   |      |           |   |      |      |   |      |