**Module Handbook**

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| Module Name: | General Microbiology |
| Module Level: | Bachelor |
| Abbreviation, if applicable: | BIM201 |
| Sub-heading, if applicable: | - |
| Courses included in the module, if applicable: | - |
| Semester/term: | Odd |
| Module coordinator(s): | Tri Nurhariyati, S.Si, M.Kes. |
| Lecturer(s): | Tri Nurhariyati, S.Si, M.Kes.<br>Prof. Dr. Ir. Tini Surtiningsih, DEA<br>Drs. Salamun, M.Kes<br>Dr. Fatimah |
| Language: | Indonesian language |
| Classification within the curriculum | Compulsory Course / ~~Elective Studies~~ |
| Teaching format / class hours per week during semester: | 300 minutes/ week |
| Workload: | 100 min lecture + 100 min structural assignment + 100 min self-assignment x 13 weeks; total 3900 min = 65 hours<br>65/25 = 2.6 ECTS |
| Credit point | 2 |
| Requirements | - |
| Learning goals/competencies | **General competence (knowledge)**<br>Students are able to explain the basic concepts of microbiology<br><br>**Specific competence**<br>1. Students are able to elaborate principle of basic microbiology<br>2. Students are able to elaborate microbes and microscope observation techniques<br>3. Students are able to compare morphology and cell structure of bacteria, fungi and viruses<br>4. Students are able to elaborate media and microbial nutrition<br>5. Students are able to elaborate sterilization and disinfection<br>6. Students are able to elaborate microbes growth<br>7. Students are able to elaborate environmental factors<br>8. Students are able to elaborate microbial metabolism, enzymes and energy<br>9. Students are able to elaborate microbial genetics<br>10. Students are able to elaborate roles of microbes in environment |
| Content | principle of basic microbiology, microbes and microscope observation techniques, compare morphology and cell structure of bacteria, fungi and viruses, general review of bacteria, general review of fungi, general review of virus, media and microbial nutrition, sterilization and disinfection, |

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| | microbes growth, environmental factors, microbial metabolism, enzymes and energy, microbial genetics, roles of microbes in environment |
| Soft skill Attribute | Diclipline and argumentation |
| Study/ exam achievements | Students are considered to be competent and pass if at least get 40% of maximum. Final score (NA) is calculated as follow: 20% (structural assignment + soft skill) + 40% mid exam + 40% final exam<br><br>Final index is defined as follow:<br>A : 75 - 100<br>AB : 70 - 74.99<br>B : 65 - 69.99<br>BC : 60 - 64.99<br>C : 55 - 59.99<br>D : 40 - 54.99<br>E : 0 - 39.99 |
| Form of media | LCD, computer |
| Learning Method | Class and Discussion |
| Literature | a. Adam, R.M. 1990. Microbiology Fundamental and Application. McMilan Publishing Company, N.Y.<br>b. Pelzar, M.J., .Chan, E.C.S. 1981.*Element of Microbiology*. McGraw Hill International Book Co.<br>c. Schlegel, H.G., Schmidt, K. 1964. *Mikrobiologi umum*, Gajah Mada University Press |
| Notes | this course is the prerequisite subjects to take more upper level courses such as environmental microbiology, bacteriology, and applied microbiology, mycology |