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|  | **UNIVERSITAS NEGERI YOGYAKARTA**FACULTY OF MATHEMATICS AND NATURAL SCIENCESDEPARTMENT OF BIOLOGY EDUCATIONColombo 1 Street Yogyakarta 55281Phone: (0274)565411 Ext. 217, (0274)565411(Administration Office),fax (0274)548203Website: fmipa.uny.ac.id, E-mail :humas\_fmipa@uny.ac.id |

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| **Undergraduate Programme in Biology**  | **MODULE HANDBOOK** |

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| Module name: | Practicum for Soil Biology  |
| Module level, if applicable: | Undergraduate |
| Code: | BIM6129 |
| Sub-heading, if applicable: | - |
| Classes, if applicable: | - |
| Semester: | 6th  |
| Module coordinator: | Dr. Ir. Suhartini, MS |
| Lecturer(s): | Dr. Ir. Suhartini, MS |
| Language: | Bahasa Indonesia |
| Classification within the curriculum: | Elective course |
| Teaching format / class hours per week during the semester: | 170 minutes activities per week. |
| Workload: | Total workload per semester are 170 minutes individual study per week for 16 weeks. |
| Credit points: | 1SKS (1 ECTS) |
| Prerequisites course(s): | - |
| Course Outcomes | After taking this course, the students have ability to:CO1. Obtain soil samples and soil physico chemistry CO2. Recognize the texture, structure, andorganic composition of soil CO3. Identify the variation of soil microorganism CO4. Make compost using vermicomposting method CO5. Make compost using biopori method CO6. Plan and do soil bilogy research in group CO7. Work independently and collaboratively in group discussion activities  |
| Content: | This course discusses physiscal properties and chemistry of soil, biological nature of soil and important soil microorganism, and soil and water conservation.  |
| Study / exam achievements: | The final mark will be weight as follow:

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| **No** | **CO** | **Assessment Object** | **Assessment Technique** | **Weight** |
| 1 | CO1 to CO7 | Observed attitudes , knolwedge, and skills  | Survey, test, rubrics and manuals  | 65% |
| 2 | Final term |  |  | 35% |
|  |  |  | Total | 100% |

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| Forms of media: | Real objects, model, multimedia |
| Reference: | 1. Arsyad, S., 1989, *Konservasi Tanah dan Air*, Bogor: Penerbit IPB.
2. Bennett, P. and Humpries, D.A., 1974*. Introduction to Field Biology*. London: Edward Arnold Ltd.
3. Brata, K.R. dan Nelistya, A., 2008. *Lubang Biopori*, Jakarta: Penebar Swadaya.
4. Brown, A.L., 1980. *Ecology of Soil Organisms.* London: Heinemann Educational Booka Ltd.
5. Kuhnelt, Wilhelm, et al., 1976. *Soil Biology.* London: Faber and Faber.

Wilson, C.R. dan J.R. Feucht , 2010. Composting Yard Waste. Colorado State University Extension. Leaves and Leaf Anatomy. Retrieved from <http://www.enchantedlearning.com/subjects/plants/leaf/>1. Yulipriyanto, H., 2009. *Ilmu Pengomposan*. Yogyakarta : Biologi F MIPA Universitas Negeri Yogyakarta
2. Yulipriyanto, H., 2010. *Biologi Tanah dan Strategi Pengelolaannya.* Yogyakarta: Graha Ilmu.
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**PLO and CO mapping**

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|  | **PLO1** | **PLO2** | **PLO3** | **PLO4** | **PLO5** | **PLO6** | **PLO7** | **PLO8** | **PLO9** | **PLO10** | **PLO11** |
| **CO1** |  |  |  | ✓ | ✓ | ✓ | ✓ |  |  |  |  |
| **CO2** |  |  |  | ✓ | ✓ |  | ✓ |  |  |  |  |
| **CO3** |  |  |  | ✓ | ✓ | ✓ | ✓ |  |  |  |  |
| **CO4** |  |  |  | ✓ | ✓ | ✓ | ✓ |  | ✓ |  |  |
| **CO5** |  |  |  | ✓ | ✓ | ✓ | ✓ |  | ✓ |  |  |
| **CO6** |  |  |  | ✓ | ✓ | ✓ | ✓ |  |  | ✓ |  |
| **CO7** |  |  |  | ✓ | ✓ | ✓ | ✓ |  |  |  | ✓ |
| **CO8** |  |  |  | ✓ |  |  |  |  |  |  |  |
| **CO9** |  |  |  | ✓ |  |  | ✓ |  | ✓ |  |  |
| **CO10** |  |  |  | ✓ |  |  |  |  |  |  |  |
| **CO11** |  |  |  | ✓ |  |  | ✓ |  |  |  | ✓ |