

Module designation	Innovative Learning Material Development
Module level, if applicable	Undergraduate
Code, if applicable	PBIOUM6220
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	Odd Semester
Person responsible for the module	Prof. Dr. Susriyati Mahanal, M.Pd
Lecturer	1. Dr. Susriyati Mahanal, M.Pd 2. Drs. Triastono Imam Prasetyo, M.Pd 3. Dra. Sunarmi, M.Pd 4. Deny Setiawan, M.Pd
Language	Bahasa Indonesia
Relation to curriculum	Undergraduate degree program, elective, 5th semester.
Type of teaching, contact hours	Undergraduate degree program: cooperative learning, presentation, 2 x 50 = 100 minutes and 1 x 170 = 170 minutes
Workload	1. Lectures: 2 x 50 = 100 minutes (1.67 hours) per week. 2. Exercises and Assignments: 2 x 60 = 120 minutes (2 hours) per week. 3. Private study: 2 x 60 = 120 minutes (2 hours) per week. 4. Laboratory work: 1 x 170 minutes (2.83 hours) per week.
Credit points	3 credit points (~5 ECTS-eq)
Requirements according to the examination regulations	A student must have attended at least 80% of the lectures to be eligible for the final examination.
Recommended prerequisites	PBIOUM6202 Resources and Media Development in Biology Learning
Module objectives/intended learning outcomes	Students are able to: (LO5) Master the basic concepts of biology learning design to design, implement, and evaluate Student Centered Learning and scientific biology learning by utilizing ICT, local potential and wisdom to develop 21st century life skills.
Course Learning Outcomes	• Understanding comprehensive generalization of the concept of teaching materials; kinds/types of teaching materials; and models of developing teaching materials that are oriented towards developing critical, creative

	and literate thinking skills towards information, media and technology • Being skilled at describing Basic Competencies (KD) in Biology Subjects in secondary schools into competency indicators which are then developed into teaching materials based on certain development models oriented towards critical, creative and literate thinking skills towards information, media, and technology • Being skilled at designing appropriate and visible teaching material validation instruments to be applied.	
Content	This module covers the following main topics: • Defining the meaning of teaching materials comprehensively, distinguishing teaching materials and teaching resources by analyzing the characteristics of both carefully • Identifying the types of conventional biology teaching materials as well as the results of innovation, explaining various models of teaching material development (Thiagarajan, ADDIE, R2D2, Ploom, Kemp, etc.) • Analyzing KD Subject of Biology in secondary schools • Formulating competency indicators from KD Subject Biology in secondary schools • Arranging teaching materials based on basic competence (KD) in secondary schools • Designing a high school KD into teaching material by applying one of the development models • Explaining the meaning of teaching material validation and the purpose of validating teaching materials, designing teaching material validation instruments, applying teaching material validation instruments	
Learning Activity	Week 1	Introduction: course orientation and regulations
	Week 2	Classroom discussion: Many kinds of Innovative Learning Resources (Cooperative learning)
	Week 3	Classroom discussion: Analysis Competence (Cooperative learning)
	Week 4	Group discussion: Printed Innovative Learning Resources (Cooperative learning)
	Week 5	Group discussion: Electronic Innovative Learning Resources (Cooperative learning)
	Week 6	School Excursion
	Week 7	Excursion report presentation
	Week 8	MIDTERM EXAMINATION
	Week 9	Project: Product Developing (PjBL)
	Week 10	Project: Product Developing (PjBL)
	Week 11	Project: Product Developing (PjBL)

	Week 12	Project: Product Developing (PjBL)
	Week 13	Project: Peer-Review (PjBL)
	Week 14	Project: Validation dan Tryout (PjBL)
	Week 15	Project: Validation dan Tryout (PjBL)
	Week 16	Reflection and Project Exhibition (PjBL)
Study and examination requirements and forms of examination	Midterm examination (20%): writing test Final examination (40%): Project Innovative learning product (20%) Excursion report (20%)	
Media employed	LCD, power point, white board, video and moodle (Sipejar)	
Reading list	1. Standar isi kurikulum IPA SMP dan Biologi SMA Permen No.24 Tahun 2016 Lampiran 7 tentang KD Biologi SMA. 2. Smaldinow, E.S., Russell, J.D, Heinich, R,dan Molenda, M. <i>Instructional Technology and Media of Learning</i>. Columbus, Ohio: Pearson Merille Prentice Hall. 3. Ibrahim, Muslimin. 202. <i>Asesmen Alternatif</i>. Direktorat Sekolah Lanjutan Tingkat Pertama, Dirjen Pendidikan Dasar dan Menengah Departemen Pendidikan Nasional 4. Azarnoosh, M., Zeraatpishe, M., Faravani, A., & Kargozari, H. R. (Eds.). (2016). <i>Issues in Materials Development</i>. Springer. (E-book) 5. Willis, J., & Wright, K. E. (2000). A general set of procedures for constructivist instructional design: The new R2D2 model. <i>Educational Technology</i>, 40(2), 5-20. 6. van den Akker, J., Branch, R. M., Gustafson, K., Nieveen, N., & Plomp, T. (Eds.). (2012). <i>Design approaches and tools in education and training</i>. Springer Science & Business Media. 7. Branch, R. M. (2009). <i>Instructional design: The ADDIE approach</i> (Vol. 722). Springer Science & Business Media.	
Date of last amendment made	January, 2022	