

	<b>UNIVERSITAS PADJADJARAN</b> <b>FACULTY OF MATHEMATICS AND NATURAL SCIENCES</b>  <b>BACHELOR PROGRAMME IN BIOLOGY (BPB)</b>	<b>COURSE CODE:</b> <b>D10D-2009</b>
	Module designation	Bacteriology
Semester(s) in which the module is taught	6 & 7	
Lecturers	Prof. Ratu Safitri Yolani Syaputri, Ph.D	
Medium of instruction	Bahasa Indonesia	
Relation to curriculum	Elective Course	
Teaching methods	Collaborative Learning, Small Group Discussion dan Brain storming, <i>Case-based Learning</i>	
Workload	Total workload: 8160 minutes = 136 hours  Lectures, discussions, cooperative learning, and inquiry learning: 3 x 50 minutes x 16 weeks = 2400 minutes = 40 hours  Exercises: 3 x 60 minutes x 16 weeks = 2880 minutes = 48 hours Self-study: 3 x 60 minutes x 16 weeks = 2880 minutes = 48 hours	
Credit points	3,00 (5,43 ECTS)	
Required and recommended prerequisites for joining the module	Microbiology	
Module objectives/intended learning outcomes	<b>LO1:</b> Students are able to determine the scope and extent of bacteriology, cell structure and host-pathogen as well as bacterial cell communication with everyday life. <b>LO2:</b> Students are able to connect the principles of pathogenesis and immune defense against microbial pathogens. <b>LO3:</b> Students are able to use antimicrobial agents used in the treatment of infectious diseases. <b>LO4:</b> Students are able to analyze sequencing results and operate software for bacterial identification. <b>LO5:</b> Students are able to detail the metabolism of bacteria and pathogens that cause disease in animals and humans.	
Contents	<ol style="list-style-type: none"> <li>1. Bacterial cell taxonomy and characteristics</li> <li>2. Cell structure and host-pathogen interaction</li> <li>3. Bacterial pathogenesis and immune defense against microbial pathogens</li> <li>4. Antimicrobial agents used in the treatment of infectious diseases</li> <li>5. Bacterial genetic sequencing analysis</li> <li>6. Bacterial metabolism</li> <li>7. Bacteria that infect animals and humans</li> </ol>	
Examination forms	Participation, Assignment, Quiz, Project, Midterm exam, Final exam	
Study and examination requirements	The minimum attendance in lectures is 80%. Final grades are evaluated based on participation (20%), Assignment (10%), quiz (20%), project (30%), midterm exam (20%), final exam (10%)	

Reading lists	<ul style="list-style-type: none"><li>- Clifford, Justin. 2022. Bacteriology: the study of bacteria. New York: Syrawood Publishing House</li><li>- Macneal Ward J. 2018. Pathogenic Micro-Organisms: A Text-Book of Microbiology for Physicians and Students of Medicine. London: United Kingdom.</li><li>- Cappuccino, J., &amp; Welsh, C. (2018). Microbiology, a Laboratory Manual. In <i>Pearson Education Limited</i>.</li><li>- Qiu, X., Zhang, Y., &amp; Hong, H. (2021). Classification of acetic acid bacteria and their acid resistant mechanism. <i>AMB Express</i>, 11(1), 29. <a href="https://doi.org/10.1186/s13568-021-01189-6">https://doi.org/10.1186/s13568-021-01189-6</a></li><li>-</li></ul>
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