Mahidol University Degree Profile

Bachelor's Degree Program	
1. Program Title (In Thai) หลักสูตรวิทยาศาสตรบัณฑิต สาขาวิชาวิทยาศาสตร์ชีวการแพทย์ (หลักสูตรนานาชาติ) (In English) Bachelor of Science Program in Biomedical Science (International Program) 2. Degree Offered (In Thai) วิทยาศาสตรบัณฑิต (วิทยาศาสตร์ชีวการแพทย์) (In English) Bachelor of Science (Biomedical Science)	
General information of the program	
Type of the program	Bachelor's Degree (International Program), Academic Program
Total credits required	Plan A – no less than 132 credits of courses taken while studying at the Faculty of Science, Mahidol University Plan B – no less than 81 credits of courses taken while studying at the Faculty of Science, Mahidol University and no less than 240 credits of courses taken while studying at the University of Sussex
Studying duration / Program cycle	4-Year Program
The program's status and opening schedule	1. Revised Program 2019 2. Program start: Semester 1 Academic Year 2019
Degree granting	One degree of one major
Degree-granting Institutions (MOU with other institutions)	Mahidol University, Thailand
Organizations certifying the standards	-

Specific information of the program	
Purpose / Goals / Objectives	**Goals** The program offers a healthcare pathway in preparation for the scientific investigation of how the human body and disease work as well as how to develop prevention and treatment for diseases. The graduates are expected to acquire MU graduate attributes. We also encourage our students to spend time abroad with our partner university, the University of Sussex, United Kingdom, to diversify their knowledge and experience. **Objectives** To produce graduates who have the characteristics, knowledge and skills as follows: 1. integrate and apply knowledge in biomedical science and related sciences to address health-related needs 2. create a research project in biomedical science or related fields using appropriate scientific laboratory skills 3. have responsibility for society, problem solving, and creative thinking as well as self-development 4. display teamwork, professional ethics, and formulate ideas and products to serve social needs 5. have skills in interpersonal communication
Distinctive features	1. The international bachelor program in biomedical science of Thailand 2. Learners have opportunity to choose a study plan aboard through double degree with the University of Sussex.
Educational system	Semester System

Graduates' advancement	
Career opportunities	1. Scientist or research assistant in biomedical and diagnostic clinical laboratories 2. Product specialist in medical instrument, biotechnology and pharmaceutical companies 3. Health communicator and counselor
Further fields of study	1. Graduate programs in biomedical science and related fields including anatomy and structural biology, biochemistry, microbiology and immunology, pathobiology, pharmacology, physiology, and other programs in life sciences 2. Undergraduate program in medicine or allied health programs
Philosophy in program administration	
Educational philosophy	Our primary focus is on educating the learners, as for them to attain academic achievement through learning-centered education, outcome-based education and constructivism. To become a wisdom graduate, learners combine what they have learned so far with the new knowledge, and with experiential learning activities. While the role of a lecturer in the learning process is shift from an information provider to a coach or a facilitator creating challenge-based activities.
Educational philosophy in program management	
Strategy / teaching guidelines	The program is aware of student differences in backgrounds, strengths and weaknesses, interests, and learning styles. Therefore, a range of teaching styles are set through the diverse learning activities according to the learning outcomes including interactive lectures, laboratory practical, individual and group discussions and assignments, active research projects with emphasis on student's demonstration of ideas, logical reasoning, and problem-solving.

Strategy / student's evaluation guidelines	The assessments and evaluations align with the teaching strategies and the desired learning outcomes including formative and summative assessments by using a variety of tools such as written and oral examination, practical test, oral presentation, individual or group class participation and assignment report. Rubrics based on the objectives of the course are announced clearly and used to score the students' achievement.
Competences provided to the students	
Generic competences	1. **Ethics**: demonstrate moral and ethical behavior and be responsible in their own action including awareness of plagiarism 2. **Critical thinking and analysis**: be capable of analytical and critical thinking and be able to evaluate both general and scientific information with logical and systematic thinking 3. **Creativity**: be able to bridge research to innovation which further enhance basic knowledge 4. **Communication**: be able to choose appropriate forms of English communication such as listening, speaking, reading and writing skills, depending on target audience and for academic purposes 5. **Collaboration**: be able to work with others appropriately and accept the difference between people 6. **ICT**: be able to choose the appropriate information technology for searching of information and data and be able to analyze the reliability of data from various sources
Competences provided to the students	
Subject-specific competences	1. Demonstrate conceptual knowledge in biomedical science including anatomy and structural biology, biochemistry, microbiology and immunology, pathology, pharmacology, and physiology

	2. Able to apply the knowledge and perform the laboratory skills at molecular, cellular, tissue, and organ levels including bioinformatics, gene technology, cell culture, immunohistochemistry, and microscopy to solve biomedical science-related problems 3. Create a research project in biomedical science including planning, assumption, experimentation, analysis, and conclusion of the finding
Graduates' learning outcomes	
At the end of the program, successful students will be able to:	
PLO1	Synthesize knowledge and information acquired for medical-related problems to protect and improve the health of individuals
PLO2	Carry out laboratory-based experiments to provide information about prevention, diagnosis, and treatment of diseases in accordance with international standard methodology
PLO3	Create an independent project in biomedical science analyzed from scientific journals and laboratory reports along with laboratory safety skills and professional code of conduct to solve medical-related problems
PLO4	Communicate concepts of biomedical science clearly and purposefully with target audiences in English, in both written and oral forms with appropriate information technologies in an organized manner
PLO5	Work independently and coordinate with others to achieve team goals based on roles and responsibilities of a life science researcher