MU Degree Profile

Bachelor's Degree (International Programme)	
Topic	**Programme of the Year 2023 (Revised Version)**
Programme Title	
(In Thai)	หลักสูตรวิทยาศาสตรบัณฑิต สาขาวิชาคณิตศาสตร์ประกันภัย (หลักสูตรนานาชาติ)
(In English)	Bachelor of Science Programme in Actuarial Science (International Programme)
Degree Offered	
(In Thai)	วิทยาศาสตรบัณฑิต (คณิตศาสตร์ประกันภัย)
(In English)	Bachelor of Science (Actuarial Science)
General information of the programme	
Type of programme	Bachelor's Degree (International Programme), Academic Programme
Total credits required	No less than 120 credits
Studying duration / Programme cycle	4 Year Programme
Degree offered	One degree of one major
Degree-granting Institutions (MOU with other institutions)	Mahidol University, Thailand
Organization certifying the standards	- -
The specific information of the programme	
Goals & Objectives	**Programme Goals** The goal of this programme is to prepare students for professional actuarial careers. The programme is designed to enable students to acquire and apply specialised knowledge and professional skills in problem solving and innovation in actuarial science and other related fields. Students will demonstrate a high level of awareness of relevant global developments, apply professional conduct, including self-reflection and continuous learning, to respond and adapt to change.

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	Program Objectives 1. To produce highly qualified graduates in actuarial science, who understand and can apply various analytical and quantitative methods to define and can solve problems in insurance, finance, economics, investments, retirement planning, financial risk management, and demographics 2. To prepare graduates for employment as financial advisors in commercial organizations that include insurance companies, pension funds, banks, other financial institutions and governments. 3. To produce the graduates with social responsibility, leadership, ethics, who apply their knowledge for the benefit of humankind. 4. To produce the graduates who have the ability to communicate effectively, collaborate with others in a manner consistent with professional practices and use digital technology according to audience and purpose. 5. To support economic growth, and enhance the country's competitive capability in the financial world.
Distinctive Features	1. The programme at Mahidol University is the only international programme in Thailand offering actuarial science at the undergraduate level. 2. The programme was co-developed and has been collaborated with Curtin University in Western Australia, which offers an actuarial science course that has been accredited by the Institute of Actuaries Australia. Students have the opportunity to earn a double degree under an agreement with Curtin University. Students who complete their studies at Curtin University,

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	Australia, will gain experience and have knowledge from the curriculum recognized by the Institute of Actuaries of Australia. 3. The programme has recently been accredited on a subject by subject basis by the Institute and Faculty of Actuaries (IFoA), which is the UK's chartered professional body dedicated to educating, developing and regulating actuaries. The institution provides qualifications to attain designations such as Associate and Fellow for people who want a career within the actuarial profession. 4. The programme has a strong collaboration with insurance companies. Some of them have provided scholarships to our outstanding students and internship opportunities. 5. Mahidol University has signed Memorandums of Understanding (MOU) with the Office of Insurance Commission, Thai Life Assurance Association, and Thai General Insurance Association on the enhancement of academic collaboration in our actuarial professional development programme. 6. The graduates have a broad knowledge not only in insurance, but also in business, finance, and investment. Those qualified graduates with a fellowship designation by an international actuarial body can be employed in any part of the world.
Educational system	Semester System
Graduates' advancement	
Career opportunities	**1. Traditional actuarial fields** Actuary, business analyst, risk analyst, consultant, insurance underwriter **2. Non-traditional actuarial fields** Graduates from the Actuarial Science programme with statistics and financial mathematics expertise may also work in the following related fields: Finance services, investment, banking, management, data Analyst,

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Further fields of study	Graduate studies in Actuarial Management, Statistics, Economics, Finance, Business Management
Educational philosophy in programme management	
Programme philosophy	Adapted from the National Education Act, BE 2542 (1999), Section 4, Clause 22, and Amendment (No. 2), BE 2545 "All learners have the capacity to learn and develop, and learners matter most. The educational process must encourage students to develop to their full potential naturally and according to their potential." Therefore, learning activities are focused on learner achievement through a learner-centred approach to self-development of knowledge, skills, and new abilities, while teachers adjust their role from knowledge facilitator to supporter and provide challenging activities for students to practice.
Strategy/teaching guidelines	Learning activities will focus on learners to stimulate the learner's learning and support self-cognition by linking new knowledge with old knowledge. The learning activities will be varied and consistent with the learning outcomes such as problem-based case studies as deductive teaching bases, collaborative learning and self-study, the process of inquiry, practice, presentation, seminar and project. The teaching and learning management is consistent with constructivism by teaching from the easy to the difficult and creating an environment that promotes learner learning.
Strategy / student's evaluation guidelines	Assessments and evaluations align with the teaching strategies and learning outcomes. These include formative and summative assessments, including in-course assessment, assessment of presentation and team work, and assessment of written examination and practice. The assessment form has a clear point scale.
Competences provided to the students	

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Generic Competences	1. **Communication**: Able to choose between listening, speaking, reading and writing in English which is suitable for the target audience and academic purposes 2. **ICT**: Able to choose the appropriate information and communication technology for searching of information and data and ability to analyze the reliability of data from various sources and communicate results effectively and appropriately to audiences. 3. **Critical thinking & Analysis**: Can be critical and analytical and evaluate data and problems creatively with the principles and reasons. 4. **Ethics**: Have virtue, self-reliance, ethics in a manner consistent with professional practices and follow the rules of society. 5. **Collaboration**: Can work with others appropriately and accept the difference between people.
Subject-specific Competences Competences	1. Describe the key concepts of calculus, linear Algebra, probability mathematical statistics, financial Mathematics and actuarial mathematics. 2. Explain the key concepts of general business studies related to actuarial science including accounting, economics, finance and investment. 3. Apply analytical and quantitative methods of mathematics and advanced statistics to analyze and solve problems in finance and insurance. 4. Write computer code and use statistical software to analyze and solve problems related to financial and insurance business context.
Graduates' learning Outcomes	
At the end of the program, successful students will be able to:	
PLO1	Plan and design methods for solving problems in mathematics, statistics, actuarial science, and subjects related to the development

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	of society and humankind, using appropriate tools.
PLO2	Manage risks in insurance and finance using appropriate methods in accordance with the objectives and professional ethics of actuaries.
PLO3	Apply statistical computing environments to perform calculations, perform statistical analysis, or solve problems and as a tool for lifelong learning.
PLO4	Communicate effectively mathematical and actuarial knowledge and results of statistical analyses in formal and informal contexts in English.
PLO5	Work effectively with others and respect individual differences according to the specific role and responsibilities of an actuary.