

STUDY PROGRAM INFORMATION

A.	Name of Study Program	:	Mathematics Education
	Level of Study	:	Bachelor's Degree
	Faculty	:	Teacher Training and Education
B.	Vision	:	Developing innovative Mathematics Education grounded in cyber technology and guided by Islamic values by 2030
C.	Graduate Learning Outcomes	:	<ol style="list-style-type: none"> 1. Prospective Professional Educator in Mathematics Education (Primary and Secondary Levels) with Islamic Values Possessing the ability to design, implement, evaluate, and follow up on mathematics learning that is educational and meaningful by utilizing developments in cyber technology at the primary and secondary education levels, and having the potential to pursue professional teacher education as well as advanced studies in mathematics or mathematics education 2. Novice Researcher in Mathematics Education with Islamic Values Demonstrating the ability to collect, process, analyze, and present data systematically and objectively using cyber technology to solve problems or test hypotheses in developing general principles in mathematics education, and being able to publish research findings in scientific forums 3. Professional Edupreneur in Mathematics Education with Islamic Values Having the ability to innovatively apply mathematical and computational knowledge in line with developments in cyber-based science and technology in the field of mathematics education
D.	Learning Outcomes	:	<ol style="list-style-type: none"> 1. Demonstrating Faith and Progressive Character Demonstrating devotion to God Almighty, possessing strong character, and upholding progressive values in national life, with global and sustainable perspectives grounded in progressive Islamic values and Pancasila 2. Applying Mathematical and Pedagogical Knowledge Mastering mathematical concepts and didactic-pedagogical principles and their application in mathematics learning to solve mathematical and mathematics education problems by utilizing data and ICT, while demonstrating critical, collaborative, and communicative thinking skills 3. Mastering Mathematical Content for Teaching and Research Mastering mathematical concepts to conduct teaching at primary and secondary education levels, pursuing advanced studies, and supporting research in mathematics education, with critical and reflective thinking skills supported by cyber information technology and perseverance

		<p>4. Designing and Implementing Innovative Learning Applying didactic–pedagogical principles and mathematical knowledge to plan, implement, and evaluate innovative learning that utilizes cyber technology and is oriented toward life skills, while demonstrating professional, ethical, and responsible attitudes, as well as critical and adaptive thinking skills</p> <p>5. Conducting Educational Research Solving mathematics education problems through research with academic integrity, effective communication, and appropriate use of cyber technology</p> <p>6. Applying Technology, Research, and Entrepreneurship Applying information and communication technology, research methods, and entrepreneurship to solve problems in mathematics and mathematics learning</p>																																																																		
E.	Courses	<table border="1"> <thead> <tr> <th data-bbox="683 790 1286 824">Semester I</th> <th data-bbox="1286 790 1453 824">Credits</th> </tr> </thead> <tbody> <tr><td data-bbox="683 824 1286 857">1. Humanity and Islamic Studies</td><td data-bbox="1286 824 1453 857">1</td></tr> <tr><td data-bbox="683 857 1286 891">2. Productive Skills of FLSP</td><td data-bbox="1286 857 1453 891">2</td></tr> <tr><td data-bbox="683 891 1286 925">3. Indonesian Language</td><td data-bbox="1286 891 1453 925">2</td></tr> <tr><td data-bbox="683 925 1286 958">4. Pancasila</td><td data-bbox="1286 925 1453 958">2</td></tr> <tr><td data-bbox="683 958 1286 992">5. Sustainability Awareness</td><td data-bbox="1286 958 1453 992">1</td></tr> <tr><td data-bbox="683 992 1286 1025">6. Number Theory</td><td data-bbox="1286 992 1453 1025">3</td></tr> <tr><td data-bbox="683 1025 1286 1059">7. Philosophy of Mathematics Education</td><td data-bbox="1286 1025 1453 1059">4</td></tr> <tr><td data-bbox="683 1059 1286 1093">8. Set Theory</td><td data-bbox="1286 1059 1453 1093">2</td></tr> <tr><td data-bbox="683 1093 1286 1126">9. Logic and Algorithms</td><td data-bbox="1286 1093 1453 1126">3</td></tr> <tr> <th data-bbox="683 1126 1286 1160">Semester II</th> <th data-bbox="1286 1126 1453 1160"></th> </tr> <tr><td data-bbox="683 1160 1286 1193">1. Worship and Human Relations</td><td data-bbox="1286 1160 1453 1193">1</td></tr> <tr><td data-bbox="683 1193 1286 1227">2. English Proficiency Test Preparation Course</td><td data-bbox="1286 1193 1453 1227">2</td></tr> <tr><td data-bbox="683 1227 1286 1261">3. Descriptive Statistics</td><td data-bbox="1286 1227 1453 1261">2</td></tr> <tr><td data-bbox="683 1261 1286 1294">4. Graphic Design for Mathematics Learning</td><td data-bbox="1286 1261 1453 1294">3</td></tr> <tr><td data-bbox="683 1294 1286 1328">5. Algebra</td><td data-bbox="1286 1294 1453 1328">3</td></tr> <tr><td data-bbox="683 1328 1286 1361">6. Euclidean Geometry</td><td data-bbox="1286 1328 1453 1361">3</td></tr> <tr><td data-bbox="683 1361 1286 1395">7. Trigonometry</td><td data-bbox="1286 1361 1453 1395">2</td></tr> <tr><td data-bbox="683 1395 1286 1429">8. Civics</td><td data-bbox="1286 1395 1453 1429">2</td></tr> <tr><td data-bbox="683 1429 1286 1462">9. Learner Development</td><td data-bbox="1286 1429 1453 1462">2</td></tr> <tr> <th data-bbox="683 1462 1286 1496">Semester III</th> <th data-bbox="1286 1462 1453 1496"></th> </tr> <tr><td data-bbox="683 1496 1286 1529">1. Muhammadiyah Studies</td><td data-bbox="1286 1496 1453 1529">1</td></tr> <tr><td data-bbox="683 1529 1286 1563">2. PLP 1: School Field Practice</td><td data-bbox="1286 1529 1453 1563">1</td></tr> <tr><td data-bbox="683 1563 1286 1597">3. Technology-Based Mathematics Learning Strategies</td><td data-bbox="1286 1563 1453 1597">3</td></tr> <tr><td data-bbox="683 1597 1286 1630">4. Inferential Statistics</td><td data-bbox="1286 1597 1453 1630">3</td></tr> <tr><td data-bbox="683 1630 1286 1664">5. Web Design for Mathematics Learning</td><td data-bbox="1286 1630 1453 1664">3</td></tr> <tr><td data-bbox="683 1664 1286 1697">6. Analytic Geometry</td><td data-bbox="1286 1664 1453 1697">3</td></tr> <tr><td data-bbox="683 1697 1286 1731">7. Curriculum Design and Development</td><td data-bbox="1286 1697 1453 1731">3</td></tr> <tr><td data-bbox="683 1731 1286 1765">8. Differential Calculus</td><td data-bbox="1286 1731 1453 1765">3</td></tr> <tr> <th data-bbox="683 1765 1286 1798">Semester IV</th> <th data-bbox="1286 1765 1453 1798"></th> </tr> <tr><td data-bbox="683 1798 1286 1832">1. Islam, Science, and Technology</td><td data-bbox="1286 1798 1453 1832">1</td></tr> <tr><td data-bbox="683 1832 1286 1865">2. Learning Assessment & Evaluation</td><td data-bbox="1286 1832 1453 1865">3</td></tr> <tr><td data-bbox="683 1865 1286 1899">3. Innovative Learning Design</td><td data-bbox="1286 1865 1453 1899">3</td></tr> </tbody> </table>	Semester I	Credits	1. Humanity and Islamic Studies	1	2. Productive Skills of FLSP	2	3. Indonesian Language	2	4. Pancasila	2	5. Sustainability Awareness	1	6. Number Theory	3	7. Philosophy of Mathematics Education	4	8. Set Theory	2	9. Logic and Algorithms	3	Semester II		1. Worship and Human Relations	1	2. English Proficiency Test Preparation Course	2	3. Descriptive Statistics	2	4. Graphic Design for Mathematics Learning	3	5. Algebra	3	6. Euclidean Geometry	3	7. Trigonometry	2	8. Civics	2	9. Learner Development	2	Semester III		1. Muhammadiyah Studies	1	2. PLP 1: School Field Practice	1	3. Technology-Based Mathematics Learning Strategies	3	4. Inferential Statistics	3	5. Web Design for Mathematics Learning	3	6. Analytic Geometry	3	7. Curriculum Design and Development	3	8. Differential Calculus	3	Semester IV		1. Islam, Science, and Technology	1	2. Learning Assessment & Evaluation	3	3. Innovative Learning Design	3
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			4. Research Methodology in Mathematics Education	2
			5. Programming Languages for Mathematics	3
			6. Algebraic Structures	3
			7. Linear Algebra	3
			8. Integral Calculus	3
			Semester V	
			1. Discrete Mathematics	3
			2. Microteaching	2
			3. Graph Theory	3
			4. Mathematics Education Research Proposal	3
			5. Selected Topics in Junior & Senior High School Mathematics	3
			6. Real Analysis	3
			7. Transformation Geometry	2
			8. Mathematical Statistics	2
			Semester VI	
			1. Advanced Calculus	2
			2. Differential Equations	3
			3. PLP 2: School Field Practice	3
			4. Mathematics Education Seminar	3
			5. Numerical Methods	3
			6. Elective 1: Advanced Algebraic Structures	3
			7. Emerging Technologies in Learning	4
			Semester VII	
			1. Operations Research	3
			2. Problems in School Mathematics Learning	2
			3. Community Service	4
			4. Elective 2: Practical Mathematics	2
			5. Digitalization of Learning	4
			6. Thesis	6
			Total	144
F.	Value Propositions	:	1. Python Programming Preparation 2. Intensive Foreign Language Program for the first two semesters 3. International Classes 4. Centre of Excellence (CoE) Programs: Digital Educational Media and Animation	