



PROGRAM SPECIFICATION

Bachelor of Education in Mathematics

2020-2021

Awarding Institution	A' Sharqiyah University	
College / Centre	Arts and Humanities	
Program Title	<i>Bachelor of Education in Mathematics</i>	
Final Award	<i>Bachelor of Education in Mathematics</i>	
Credit hours	128	
Mode of Study	Full time	
Language of Study	English and Arabic	
Benchmarks	<ol style="list-style-type: none"> 1. Bachelor of Education in Mathematics: Sultan Qaboos University (Oman) 2. Bachelor of Education in Mathematics: Salman bin Abdul-Aziz university (Saudi Arabia) 3. Bachelor of Mathematics Education: University of Wollongong (Australia) 4. Bachelor of Education in Mathematics: An-Rajah National University (Palestine) 	
Entry requirements	<p>A student</p> <ul style="list-style-type: none"> - should have successfully completed the courses of all subjects of the general education diploma or equivalent; with GPA Percentage of 65%; - should achieve the standards set for the subjects of the General Foundation Program; - should have studied subjects which qualify him/her to be enrolled in programs in the College of Arts and Humanities, namely: obtaining 70% or above in Pure Mathematics or as required by the Ministry of Higher Education; - must be medically fit; - Student Interview. 	
Minimum period of registration	FULL-TIME: 8 Semester	PART-TIME: 12 Semester



PROGRAM SPECIFICATION

Maximum period of registration	FULL-TIME: 12 Semester	PART-TIME: 12 Semester
Date specification produced	February 2020 (first version)	
Date specification last reviewed	20 th September 2020	



PROGRAM SPECIFICATION

1. THE COLLEGE OF ARTS AND HUMANITIES

[The College of Arts and Humanities started its programs at the beginning of the academic year 2018/2019, which aims to achieve its vision to enrich scientific knowledge with human values leading towards the socio-economic development of the Sultanate of Oman. It seeks to carry out its tasks in providing the labor market with specialized scientific competencies, and contribute effectively to the development of Omani society, and strengthen partnership with the community. This is achieved by providing specialized skills through advanced learning and teaching methods, research and scholarly activities for community development with fundamental values.]

2. PROGRAM OUTLINE

The program is designed to prepare students for successful careers in areas that require a strong foundation in mathematics, especially in General Education, and Basic Education: Stage Two, as well as future undertakings at the graduate level in mathematics, Mathematics Education or related disciplines.

Students taking this curriculum are geared to participate in the workforce particularly in the mathematical teaching careers, filling critical workforce needs in the Sultanate of Oman. Students will develop their mathematical and analytical skills in teaching, and communication skills that will be useful in education, scientific or other related jobs.

]

3. PROGRAM AIM/S

The aim/s of this program are to:

1. [Prepare students for successful careers in areas requiring a strong foundation in mathematics with math Education.
2. Acquire the critical knowledge and skills needed to teach Mathematics to all categories of students at the Basic Education: Stage 2, and high school levels.
3. Develop an inquiry based approach in mathematics teaching and learning and reflect on these areas for improvement.
4. Equip students to solve a wide- array of mathematical applications.
5. Prepare students to develop their mathematical and critical thinking skills in problem-solving, project work, and real life applications, for them to cope up with the rigors of their future jobs.
6. Develop students' abilities through self-learning and continuous growth and learning.
7. Provide a deep study in History of Mathematics across Mathematics content.]

4. LEARNING OUTCOMES (Definitive)

Upon successful completion of the program, students will be able to:

A. KNOWLEDGE AND UNDERSTANDING	1. Demonstrate a thorough understanding of the various fields of mathematics, their interconnection and its significance to a scientific society.
---------------------------------------	---



PROGRAM SPECIFICATION

B. SUBJECT-SPECIFIC INTELLECTUAL SKILLS	<p>2. Demonstrate the ability to make the right decisions about complex issues based on the knowledge and skills gained from the course, and deliver the results effectively and convincingly.</p>
C. PROFESSIONAL / PRACTICAL SKILLS	<p>3. Prepare mathematics teaching plans, derive goals and diversify teaching strategies.</p> <p>4. Use the skills and organization of classroom management and organize learning experiences within the classroom.</p> <p>5. Demonstrate the ability to use various teaching styles and strategies and apply these techniques to effectively enhance student's learning.</p> <p>6. Create effective learning environment for mathematics teaching, such as E-learning MOODLE.</p> <p>7. Demonstrate a working knowledge of technology appropriate to the field, such as the use of math typesetting software like Latex, and math programming language like Matlab, Cabri, Drive6 and Mathematica.</p>
D. GENERAL COMPETENCE	<p>Communication</p> <p>8. Demonstrate the ability to analyze information and apply suitable statistical conclusions.</p> <p>9. Communicate, both orally and written, about geometric concepts, methods of proof, and different geometries.</p> <p>Teamwork and interpersonal skills</p> <p>10. Take responsibility and claiming ownership for their responsibility while working in a team.</p> <p>11. Cooperate and listen to team members.</p> <p>Information literacy and study skills</p> <p>12. Perform data analysis efficiently and accurately using data fitting methods.</p> <p>13. Locate strategically and access information to construct teaching and computing strategies.</p> <p>14. Compare and evaluate information.</p> <p>Leadership and entrepreneurship</p> <p>15. Develop good problem solving and decision</p>

PROGRAM SPECIFICATION

	<p>making abilities.</p> <p>16. Demonstrate a clear appreciation of innovation and entrepreneurship and their impact on the economy.</p>
--	--

5. PROGRAM STRUCTURE

Students must achieve the required credit hours for the program by completing University Required and Elective courses listed in sections 5.1 to 5.5 below:

5.1 University Requirements: Total Credit hours **21**

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
ARAB101	Arabic		3
ISLM101	Islamic Civilization		3
ENGL101	English Communication Skills I		3
SOCI101	Sociology		3
ENGL102	English Communication Skills II		3
PHIL101	Introduction to Logic (Philosophy)		3
MNGT313	Entrepreneurship		3
TOTAL			21

5.2 University Electives: Total Credit hours **0**

Provide a list of all electives

5.3 College Requirements: Total Credit hours **41**

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
EDUC110	أصول التربية		3
EDUC121	علم النفس التربوي		3
EDUC214	القياس والتقويم		3
EDUC310	نظام التعليم في عمان ودول الخليج العربي		3
EDUC317	الإدارة المدرسية والصفية		3
EDUC221	تكنولوجيا التعليم والتعلم		3
EDUC211	مناهج الرياضيات		3
EDUC311	الصحة النفسية المدرسية		3
EDUC322	طرق تدريس الرياضيات		3
EDUC410	مناهج البحث في التربية		3
EDUC324	تطبيقات عملية	P: EDUC214 EDUC322	2

PROGRAM SPECIFICATION

		EDUC221 C: EDUC211 P: EDUC324	
EDUC499	التربية العملية		9

5.4 Program Requirements: Total Credit hours 60

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
MATH101	Calculus I		3
MATH102	Calculus II		3
MATH131	Principles of Statistics		3
MATH242	Linear Algebra	P: MATH141	3
MATH132	Probability Theory I		3
MATH301	Multi variable Calculus	P: MATH212	3
MATH211	Principles of Mathematics	P: MATH102	3
MATH212	Real Analysis	P: MATH211	3
MATH221	Ordinary Differential Equations I	P: MATH102	3
MATH251	Modern Euclidean Geometry	P: MATH211	3
MATH141	Mathematics for Teachers		3
MATH321	Partial Differential Equations I	P: MATH221	3
MATH341	Modern Algebra	P: MATH211	3
MATH342	Number Theory	P: MATH211	3
MATH411	Complex Analysis	P: MATH212	3
MATH461	Numerical Analysis	P: MATH321	3
CHEM101	Chemistry I (Theory & Lab)		4
PHYS101	(Theory & Lab)		4
PHYS102	(Theory & Lab)	P: PHYS101	4

5.5 Program Electives: Total Credit hours 6

Choose from the following:

Course Code	Course Title	Pre-Requisites (P) Co-Requisites (C)	Credit hours
MATH331	Probability Theory II		3
MATH352	Graph Theory		3
MATH462	Operational Plan		3
MATH421	Ordinary Differential Equations II		3
MATH422	Partial Differential Equations II		3

6. PROGRAM REFERENCE POINTS

This Program has been designed with reference to:

PROGRAM SPECIFICATION

- [Follow the Oman Standard Classification Education Framework (OSCED), which was developed with the framework of the international standards.
- The number of credit hours and the teaching load of the faculty member and the student's academic load correspond to the Oman Qualifications Framework (OQF)&Oman Academic Accreditation Authority (OAAA)..
- The Program outputs correspond to the requirement of Omani Qualifications Framework (OQF).
- The requirements for admission to the program are in line with the requirements of the Oman Qualifications Framework (OQF).]

7. TEACHING AND LEARNING METHODS (indicative)

1. [Discussion and brainstorming.
2. Lectures.
3. Scientific presentations.
4. Teaching methods based on meaningful learning.
5. Teaching methods based on learner acquisition skills.
6. Teaching methods based on helping learners to build self-meaning.
7. Extra-curricular activities..]

8. ASSESSMENT METHODS (Indicative)

1. **Evaluating performance in the field of knowledge:**
 - Quizzes, Midterm and final tests.
 - Laboratory tests, reports and research projects.
 - Homework & presentations.
2. **Evaluate the performance of students in the field of performance:**
 - Checklist.
 - Observation.
 - Practical reports and project.
 - Role representation.
 - Portfolio assessment.
3. **Evaluation of students' performance in Mathematics Education course:**
 - Questionnaires, interviews and oral test.
 - Self-assessments.
 - Peer assessments.
 - Co-supervisor assessment (Option 1 of graduate project)
 - Supervisor assessment (In option 1 of graduate project).

9. CAREER and STUDY OPPORTUNITIES

- Mathematics Teacher in National and International Schools

10. STUDENT SUPPORT

Students attend an orientation program at the start of their studies. They are supported by a Course Coordinator and the Head of Department is also available to advise on program-related queries.

Academic advising is an essential element of the educational process. Students are assigned academic advisors who help them in selecting their course of study and in planning their schedules. Academic advisors also approve students' schedules each semester. The academic advisor assists students in obtaining a well-balanced education and in interpreting university policies and procedures, it is ultimately the students' individual responsible for selecting their courses, meeting course prerequisites, and adhering to university policies and procedures. Students may also consult faculty, department or program chairs, program coordinators, and deans.

Students have access to the University's library with a range of reading materials, online resources and study support.

The University's Student Affairs Office supports students in adjusting to university life and advises on issues such as finance, regulations, legal matters, accommodation, transportation, disabilities and career guidance. Opportunities are also provided for students to participate in various extra-curricular activities.

The Student Council is also an important source of support and guidance.

The University has a Student Fund which considers applications on a case by case basis.

PROGRAM SPECIFICATION

11. PROGRAM STRUCTURE DIAGRAM (Indicative)

YEAR 1		YEAR 2		YEAR 3		YEAR 4	
Fall semester	Spring semester	Fall semester	Spring semester	Fall semester	Spring semester	Fall semester	Spring semester
MATH101 Calculus I 3 hours	MATH102 Calculus II 3 hours	EDUC310 نظام التعليم في عمان ودول الخليج العربي 3 hours	MATH212 Real Analysis (م.س) MATH211 3 hours	MATH301 Multi variable Calculus (م.س) MATH212 3 hours	MATH342 Number Theory (م.س) MATH211 3 hours	MATH411 Complex Analysis (م.س) MATH212 3 hours	EDUC499 التربية العملية (م.س) EDUC322 (م.س) EDUC324 9 hours
MATH141 Mathematics for Teachers 3 hours	MATH131 Principles of Statistics 3 hours	EDUC317 الإدارة المدرسية والصفية 3 hours	MATH251 Modern Euclidean Geometry (م.س) MATH211 3 hours	MATH321 Partial Differential Equations I (م.س) MATH221 3 hours	EDUC311 الصحة النفسية المدرسية 3 hours	EDU410 مناهج البحث في التربية 3 hours	
PHYS101 Physics I 4 hours	EDUC121 علم النفس التربوي 3 hours	MATH242 Linear Algebra (م.س) MATH141 3 hours	PHYS102 Physics II (م.س) PHYS101 4 hours	MATH341 Modern Algebra (م.س) MATH211 3 hours	Elective II 3 hours	EDUC322 طرق تدريس الرياضيات 3 hours	
EDUC110 أصول التربية 3 hours	MATH132 Probability Theory I 3 hours	Ordinary Differential Equations I (م.س) MATH102 3 hours	Elective I 3 hours	EDUC214 القياس والتقويم	EDUC211 مناهج الرياضيات 3 hours	MATH461 Numerical Analysis (م.س) MATH321 3 hours	
ENGL101 English I(م.ج) 3 hours	ENGL102 English II (م.س) ENGL101 3 hours	MATH211 Principles of Mathematics (م.س) MATH102 3 hours	CHEM101 Chemistry I 4 hours	EDUC221 تكنولوجيا التعليم والتعلم 3 hours	MNGT313 Entrepreneurship 3 hours	SOCI 101 (م.ج) Sociology 3 hours	
	ARAB 101 (م.ج) Arabic 1 3 hours	PHIL 101 (م.ج) Introduction to Philosophy 3 hours		ISLM 101 (م.ج) الحضارة الاسلامية 3 hours	SUMMER INTERNSHIP	EDUC324 تطبيقات عملية 2 hours (م.س) EDUC322 (م.س) EDUC324 (م.س) EDUC221	* BACHELOR AWARD *

KEY: UNIVERSITY REQUIREMENT COLLEGE REQUIREMENT PROGRAM REQUIREMENT

PROGRAM SPECIFICATION

12. MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 1

KEY: **F** = Formative assessment **S** = Summative assessment **FS** = Formative AND Summative assessment

Upon completion of the program, students will be able to:	REQUIRED COURSES:	MATH101	MATH141	PHYS101	EDUC110	ENGL101	MATH102	MATH131	EDUC121	MATH132	ENGL102	ARAB 101
KNOWLEDGE AND UNDERSTANDING												
1. Demonstrate a thorough understanding of the various fields of mathematics, their interconnection and its significance to a scientific society.		FS	FS				FS	FS		FS		
SUBJECT-SPECIFIC INTELLECTUAL SKILLS												
2. Demonstrate the ability to make the right decisions about complex issues based on the knowledge and skills gained from the course, and deliver the results effectively and convincingly.		FS	FS				FS	FS		FS		
PROFESSIONAL / PRACTICAL SKILLS												
3. Prepare mathematics teaching plans, derive goals and diversify teaching strategies.					FS				FS			
4. Use the skills and organization of classroom management and organize learning experiences within the classroom.					FS				FS			
5. Demonstrate the ability to use various teaching styles and strategies and apply these techniques to effectively enhance student's learning.					FS				FS			
6. Create effective learning environment for mathematics teaching, such as E-learning MOODLE.		FS	FS				FS	FS		FS		

PROGRAM SPECIFICATION

Upon completion of the program, students will be able to:	REQUIRED COURSES:	MATH101	MATH141	PHYS101	EDUC110	ENGL101	MATH102	MATH131	EDUC121	MATH132	ENGL102	ARAB 101
7. Demonstrate a working knowledge of technology appropriate to the field, such as the use of math typesetting software like Latex, and math programming language like Matlab, Cabri, Drive6 and Mathematica.		FS	FS				FS	FS		FS		
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)												
Communication Skills												
8. Demonstrate the ability to analyze information and apply suitable statistical conclusions.		FS	FS				FS	FS		FS		
9. Communicate, both orally and written, about geometric concepts, methods of proof, and different geometries.		FS	FS			FS	FS	FS		FS	FS	
Teamwork and interpersonal skills												
10. Take responsibility and claiming ownership for their responsibility while working in a team.		FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
11. Cooperate and listen to team members.		FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Information Literacy and Study Skills												
12. Perform data analysis efficiently and accurately using data fitting methods.		FS	FS				FS	FS		FS		

PROGRAM SPECIFICATION

Upon completion of the program, students will be able to:	REQUIRED COURSES:										
	MATH101	MATH141	PHYS101	EDUC110	ENGL101	MATH102	MATH131	EDUC121	MATH132	ENGL102	ARAB 101
13. Locate strategically and access information to construct teaching and computing strategies.	FS	FS		FS		FS	FS	FS	FS		
14. Compare and evaluate information.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Leadership and entrepreneurship											
15. Develop good problem solving and decision making abilities	FS	FS	FS			FS	FS		FS		
16. Demonstrate a clear appreciation of innovation and entrepreneurship and their impact on the economy	FS	FS				FS			FS		

PROGRAM SPECIFICATION

12. MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 2

KEY: F = Formative assessment S = Summative assessment FS = Formative AND Summative assessment

Upon completion of the program, students will be able to:	REQUIRED COURSES:	EDUC310	EDUC317	MATH242	MATH221	MATH211	PHIL 101	MATH212	MATH251	PHYS102	Elective I	BIOL 101 or CHEM101
KNOWLEDGE AND UNDERSTANDING												
1. Demonstrate a thorough understanding of the various fields of mathematics, their interconnection and its significance to a scientific society.				FS	FS	FS		FS	FS			
SUBJECT-SPECIFIC INTELLECTUAL SKILLS												
2. Demonstrate the ability to make the right decisions about complex issues based on the knowledge and skills gained from the course, and deliver the results effectively and convincingly.				FS	FS	FS		FS	FS			
PROFESSIONAL / PRACTICAL SKILLS												
3. Prepare mathematics teaching plans, derive goals and diversify teaching strategies.		FS	FS									
4. Use the skills and organization of classroom management and organize learning experiences within the classroom.		FS	FS									

PROGRAM SPECIFICATION

Upon completion of the program, students will be able to:	REQUIRED COURSES:	EDUC310	EDUC317	MATH242	MATH221	MATH211	PHIL 101	MATH212	MATH251	PHYS102	Elective I	BIOL 101 or CHEM101
5. Demonstrate the ability to use various teaching styles and strategies and apply these techniques to effectively enhance student's learning.		FS	FS								FS	
6. Create effective learning environment for mathematics teaching, such as E-learning MOODLE.		FS	FS								FS	
7. Demonstrate a working knowledge of technology appropriate to the field, such as the use of math typesetting software like Latex, and math programming language like Matlab, Cabri, Drive6 and Mathematica.		FS	FS	FS	FS	FS		FS	FS		FS	
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)												
Communication Skills												
8. Demonstrate the ability to analyze information and apply suitable statistical conclusions.				FS	FS	FS		FS	FS		FS	
9. Communicate, both orally and written, about geometric concepts, methods of proof, and different geometries.				FS	FS	FS		FS	FS		FS	
Teamwork and interpersonal skills												
10. Take responsibility and claiming ownership for their responsibility while working in a team.		FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
11. Cooperate and listen to team members.		FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS

PROGRAM SPECIFICATION

Upon completion of the program, students will be able to:	REQUIRED COURSES:	EDUC310	EDUC317	MATH242	MATH221	MATH211	PHIL 101	MATH212	MATH251	PHYS102	Elective I	BIOL 101 or CHEM101
Information Literacy and Study Skills												
12. Perform data analysis efficiently and accurately using data fitting methods.				FS	FS	FS		FS	FS		FS	
13. Locate strategically and access information to construct teaching and computing strategies.	FS	FS									FS	
14. Compare and evaluate information.			FS	FS	FS			FS	FS		FS	
Numeracy												
15. Implement a range of numerical algorithms efficiently in Matlab.			FS	FS	FS			FS	FS		FS	
16. Perform further applications of probability theory by analysis of random variables properties.			FS	FS	FS			FS	FS		FS	
Leadership and entrepreneurship												
17. Develop good problem solving and decision making abilities.			FS	FS	FS			FS	FS		FS	
18. Demonstrate a clear appreciation of innovation and entrepreneurship and their impact on the economy.			FS	FS	FS			FS	FS		FS	

PROGRAM SPECIFICATION

12. MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 3

KEY: **F** = Formative assessment **S** = Summative assessment **FS** = Formative AND Summative assessment

Upon completion of the program, students will be able to:	REQUIRED COURSES:	MATH301	MATH321	MATH341	EDUC214	EDUC221	ISLM 101	MATH342	EDUC311	Elective II	EDUC211	MNGT313
KNOWLEDGE AND UNDERSTANDING												
1. Demonstrate a thorough understanding of the various fields of mathematics, their interconnection and its significance to a scientific society.		FS	FS	FS					FS		FS	
SUBJECT-SPECIFIC INTELLECTUAL SKILLS												
2. Demonstrate the ability to make the right decisions about complex issues based on the knowledge and skills gained from the course, and deliver the results effectively and convincingly.		FS	FS	FS					FS		FS	
PROFESSIONAL / PRACTICAL SKILLS												
3. Prepare mathematics teaching plans, derive goals and diversify teaching strategies.					FS	FS				FS		FS
4. Use the skills and organization of classroom management and organize learning experiences within the classroom.					FS	FS				FS		FS

PROGRAM SPECIFICATION

Upon completion of the program, students will be able to:	REQUIRED COURSES:											
	MATH301	MATH321	MATH341	EDUC214	EDUC221	ISLM 101	MATH342	EDUC311	Elective II	EDUC211	MNGT313	
5. Demonstrate the ability to use various teaching styles and strategies and apply these techniques to effectively enhance student's learning.				FS	FS							
6. Create effective learning environment for mathematics teaching, such as E-learning MOODLE.	FS	FS	FS				FS		FS			
7. Demonstrate a working knowledge of technology appropriate to the field, such as the use of math typesetting software like Latex, and math programming language like Matlab, Cabri, Drive6 and Mathematica.	FS	FS	FS				FS		FS			
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)												
Communication Skills												
8. Demonstrate the ability to analyze information and apply suitable statistical conclusions.	FS	FS	FS				FS		FS			
9. Communicate, both orally and written, about geometric concepts, methods of proof, and different geometries.	FS	FS	FS				FS		FS			
Teamwork and interpersonal skills												
10. Take responsibility and claiming ownership for their responsibility while working in a team.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
11. Cooperate and listen to team members.	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
Information Literacy and Study Skills												

PROGRAM SPECIFICATION

Upon completion of the program, students will be able to:	REQUIRED COURSES:	MATH301	MATH321	MATH341	EDUC214	EDUC221	ISLM 101	MATH342	EDUC311	Elective II	EDUC211	MNGT313
12. Perform data analysis efficiently and accurately using data fitting methods.		FS	FS	FS				FS		FS		
13. Locate strategically and access information to construct teaching and computing strategies.		FS	FS	FS				FS				
14. Compare and evaluate information.		FS	FS	FS				FS		FS		
Numeracy												
15. Implement a range of numerical algorithms efficiently in Matlab.		FS	FS	FS				FS		FS		
16. Perform further applications of probability theory by analysis of random variables properties.		FS	FS	FS				FS		FS		
Leadership and entrepreneurship												
17. Develop good problem solving and decision making abilities.		FS	FS	FS				FS		FS		
18. Demonstrate a clear appreciation of innovation and entrepreneurship and their impact on the economy.		FS	FS	FS				FS		FS		FS

12. MAPPING of ASSESSMENT of LEARNING OUTCOMES YEAR 4

KEY: F = Formative assessment S = Summative assessment FS = Formative AND Summative assessment

Upon completion of the program, students will be able to:	REQUIRED COURSES:						
	MATH411	EDU410	EDUC322	MATH461	SOC1 101	EDUC324	EDUC499
KNOWLEDGE AND UNDERSTANDING							
1. Demonstrate a thorough understanding of the various fields of mathematics, their interconnection and its significance to a scientific society.	FS			FS			
SUBJECT-SPECIFIC INTELLECTUAL SKILLS							
2. Demonstrate the ability to make the right decisions about complex issues based on the knowledge and skills gained from the course, and deliver the results effectively and convincingly.	FS			FS			
PROFESSIONAL / PRACTICAL SKILLS							
3. Prepare mathematics teaching plans, derive goals and diversify teaching strategies.		FS	FS			FS	FS
4. Use the skills and organization of classroom management and organize learning experiences within the classroom.		FS	FS			FS	FS
5. Demonstrate the ability to use various teaching styles and strategies and apply these techniques to effectively enhance student's learning.		FS	FS			FS	FS
6. Create effective learning environment for mathematics teaching, such as E-learning MOODLE.	FS	FS	FS	FS		FS	FS

Upon completion of the program, students will be able to:	REQUIRED COURSES:	MATH411	EDU410	EDUC322	MATH461	SOCI101	EDUC324	EDUC499
7. Demonstrate a working knowledge of technology appropriate to the field, such as the use of math typesetting software like Latex, and math programming language like Matlab, Cabri, Drive6 and Mathematica.		FS			FS			FS
GENERAL COMPETENCE (INCLUDING FOR EMPLOYABILITY)								
Communication Skills								
8. Demonstrate the ability to analyze information and apply suitable statistical conclusions.		FS			FS			
9. Communicate, both orally and written, about geometric concepts, methods of proof, and different geometries.		FS			FS			FS
Teamwork and interpersonal skills								
10. Take responsibility and claiming ownership for their responsibility while working in a team.		FS	FS	FS	FS	FS	FS	FS
11. Cooperate and listen to team members.		FS	FS	FS	FS	FS	FS	FS
Information Literacy and Study Skills								
12. Perform data analysis efficiently and accurately using data fitting methods.		FS			FS			
13. Locate strategically and access information to construct teaching and computing strategies.		FS			FS			FS
14. Compare and evaluate information.		FS			FS			FS

Upon completion of the program, students will be able to:

REQUIRED COURSES:

	MATH411	EDU410	EDUC322	MATH461	SOCI101	EDUC324	EDUC499
Numeracy							
15. Implement a range of numerical algorithms efficiently in Matlab.	FS			FS			
16. Perform further applications of probability theory by analysis of random variables properties.	FS			FS			
Leadership and entrepreneurship							
17. Develop good problem solving and decision making abilities.	FS			FS			FS
18. Demonstrate a clear appreciation of innovation and entrepreneurship and their impact on the economy.	FS			FS			

13. GRADUATE ATTRIBUTE

KEY: ✓ ✗

Upon completion of the program, students will be able to:

COURSES:

	MATH101	MATH141	PHYS101	EDUC110	ENGL101	MATH102	MATH131	EDUC121	MATH132	ENGL102	ARAB 101	
Knowledge Of A Discipline	✓	✓	✓	✓		✓	✓	✓	✓			
Commitment To National Development And Omani Ethical Values	✓	✓										
Innovative Spirit	✓	✓				✓	✓		✓			
Global Insight	✓	✓				✓	✓		✓			
Adaptability To Changing Environments	✓	✓			✓	✓	✓		✓	✓		

13. GRADUATE ATTRIBUTE

KEY: ✓ ✗

Upon completion of the program, students will be able to:

COURSES:

	EDUC310	EDUC317	MATH242	MATH221	MATH211	PHIL 101	MATH212	MATH251	PHYS102	Elective I	BIOL 101 or CHEM101	
Knowledge Of A Discipline	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Commitment To National Development And Omani Ethical Values	✓	✓	✓	✓	✓		✓	✓		✓		
Innovative Spirit			✓	✓	✓		✓	✓		✓		
Global Insight			✓	✓	✓		✓	✓		✓		
Adaptability To Changing Environments			✓	✓	✓		✓	✓		✓		

13. GRADUATE ATTRIBUTE

KEY: ✓ ✗

Upon completion of the program, students will be able to:

COURSES:

	MATH301	MATH321	MATH341	EDUC214	EDUC221	ISLM 101	MATH342	EDUC311	Elective II	EDUC211	MNGT313	
Knowledge Of A Discipline	✓	✓	✓	✓	✓		✓	✓	✓	✓		
Commitment To National Development And Omani Ethical Values	✓	✓	✓								✓	
Innovative Spirit	✓	✓	✓								✓	
Global Insight	✓	✓	✓								✓	
Adaptability To Changing Environments	✓	✓	✓								✓	

13. GRADUATE ATTRIBUTE

KEY: ✓ ✗

Upon completion of the program, students will be able to:

COURSES:

	MATH411	EDU410	EDUC322	MATH461	SOCI 101	EDUC324	EDUC499						
Knowledge Of A Discipline	✓	✓	✓	✓		✓							
Commitment To National Development And Omani Ethical Values	✓			✓			✓						
Innovative Spirit				✓			✓						
Global Insight	✓						✓						
Adaptability To Changing Environments	✓			✓			✓						

