F1K1-MFD Bachelor of Science in Mathematics with Finance with Diploma in Industrial Training

PROGRAMME DETAILS
Programme Code: F1K1-MFD
Department: Mathematics
Main Award: BSCH - Bachelor of Science Honours
Full Award Title: Bachelor of Science in Mathematics with Finance with Diploma in Industrial Training
Level: Undergraduate

LOCATION OF STUDY
Edinburgh Y Scottish Borders N Orkney N
Dubai N Malaysia N Approved Learning Partner N
Independent Distance Learners N Collaborative Learning Partner N Other N

ASSOCIATED AWARDS
Programme Code Award Title
F1B1-ZZZ BSCO Bachelor of Science in Mathematics with Finance
F1K1-MFD BSCH Bachelor of Science in Mathematics with Finance with Diploma in Industrial Training

ACCREDITATION
N/A

LEARNING OUTCOMES – SUBJECT MASTERY
Understanding, Knowledge and Cognitive Skills

On completion of the programme, students will be able to:

• demonstrate an understanding across a broad range of mathematics, finance and accountancy
• demonstrate an understanding of the power of abstraction and of the notions of proof and logical reasoning
• demonstrate an appreciation of the usefulness of mathematics and finance over a wide range of applications
• relate theory to practice and practical application.
• show a limited knowledge and understanding of some major current issues in the industry in which the student is working during their work placement
• show knowledge and understanding of the business environment of the industry in which the student worked during their work placement.
• undertake critical analysis, evaluation and/or synthesis of ideas, concepts, information and issues
• use a range of approaches to formulate evidence-based solutions/responses to defined and/or routine problems/issues.
• critically evaluate evidence-based solutions/responses to defined and/or routine problems/issues

Scholarship, Enquiry and Research (Research Informed Learning)

On completion of the programme, students will be able to:
**F1K1-MFD Bachelor of Science in Mathematics with Finance with Diploma in Industrial Training**

- demonstrate a good level of skill in calculation and in technical manipulation in mathematics and finance
- demonstrate the ability to present rigorous arguments in mathematics and finance
- model real-life situations in mathematical terms and analyse the resulting models
- demonstrate computational skills involving the use of a range of software packages

### LEARNING OUTCOMES – PERSONAL ABILITIES

**Industrial, Commercial and Professional Practice**

On completion of the programme, students will

- be able to use a range of routine skills, techniques, practices and/or materials, a few of which are advanced or complex
- be able to carry out routine lines of enquiry, development or investigation into professional-level problems and issues.
- have a sound knowledge and awareness of the nature of the professional industrial environment and its demands upon them.
- be able to critically review existing practices and will be in a strong position to move on to a professional environment, with sound knowledge, confidence and awareness of the nature of that environment and the demands it will make.

- be able to understand the commercial aspect of the company in which the student is working

**Autonomy, Accountability and Working With Others**
F1K1-MFD Bachelor of Science in Mathematics with Finance with Diploma in Industrial Training

On completion of the programme, students will be able to:

- plan and organise their own learning through self management and time management
- demonstrate the ability to work with relatively little guidance or support, to undertake self-directed work and to meet deadlines
- demonstrate appropriate transferable skills required of a graduate in an educational, social or employment context
- communicate effectively at all levels and using a range of media
- interact effectively with professionals from a wide and diverse range of areas
- exercise autonomy and initiative in some activities at a professional-level
- manage resources within defined areas of work
- take the lead on planning in familiar or defined contexts
- take continuing account of own and others’ roles, responsibilities and contributions in carrying out and evaluating tasks
- work in support of current professional practice, under guidance

Communication, Numeracy & Information and Communications Technology

On completion of the programme, students will be able to:

- make presentations on specialised topics
- apply detailed mathematical knowledge
- display extensive IT knowledge and skills and will be able to use them confidently
- communicate on technical and general matters with peers and senior colleagues
- convey complex information to a range of audiences and for a range of purposes
- use a variety of forms of ICT effectively in the workplace

APPROACHES TO TEACHING AND LEARNING

The following teaching methods are used: lectures, tutorials, computing laboratory work, coursework, projects. Teaching on the programme is student-focussed, with students encouraged to take responsibility for their own learning and development. In addition, students learn through structured group work in problems solving, collaborative student presentations, and independent study and technical project work. Resource-based and problem-based teaching styles are used to facilitate the motivational and assimilative phases of the learning process. The level and type of support available via VISION will vary between the courses as is appropriate for the subject matter.

Approaches to learning and teaching are continually reviewed and developed with the aim of matching them to the abilities and experiences of the students.
EDUCATIONAL AIMS OF THE PROGRAMME

The programme will:

- provide high-quality undergraduate education in a wide range of subjects in modern mathematics and finance
- enable students to develop detailed knowledge and critical understanding of both theoretical and applied elements of mathematics and finance
- provide students with training and practical experience of modelling, analysing and interpreting mathematical and real-world problems
- enable students to communicate and work effectively with peers and academic staff, demonstrating appropriate levels of autonomy, initiative, and responsibility
- provide students at the undergraduate level with the opportunity to plan and write a dissertation requiring detailed and critical understanding in an area of mathematics
- equip students with the grounding in mathematics and finance necessary to go onto to further study or straight into graduate jobs
- encourage students to apply learning gained through their academic studies at the University to the workplace.
- enable students to gain work experience which will increase their employability and professional career readiness.

ASSESSMENT POLICIES

The assessment policy for the programme incorporates a range of assessment types. Continuous assessment during some courses and summative assessment at the conclusion of courses both contribute to the overall assessment and are used to formally measure achievement in specified learning outcomes. Understanding, knowledge and subject-specific skills are assessed by coursework assignments and written examinations. Formative assessment is used to provide feedback and to inform student learning.

Approaches to assessment are continually reviewed. Further details about methods of assessment are provided in the appropriate course descriptors.

PROGRAMME STRUCTURE

Mandatory Courses

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### Optional Courses

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**ELECTIVES (UG)**

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**COMPOSITION AND STAGE NOTES (UG)**

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F1K1-MFD Bachelor of Science in Mathematics with Finance with Diploma in Industrial Training

Optional Credits 3 30
Elective Credits 3
Total 3 120

Stage 4
2 courses (2 mandatory 60-credit courses) for the Diploma in Industrial Training
Mandatory Credits 4 120
Optional Credits 4
Elective Credits 4
Total 4 120

Stage 5
8 courses (3 mandatory and 5 optional)
Mandatory Credits 5 45
Optional Credits 5 75
Elective Credits 5
Total 5 120

ASSESSMENT AND PROGRESSION (UG)

Reassessment Opportunities
1. A student who has been awarded a Grade E or a Grade F in a course may be re-assessed in that course.
2. A student shall be permitted only one re-assessment opportunity to be taken at the Resit diet of examination following the first assessment of the course.
3. A student shall not be re-assessed in any qualifying course taken in the final stage of a course of study.
4. The Progression Board may permit a student to be re-assessed in any qualifying course not taken in the final stage in order to gain credits for the course, provided that the mark or grade obtained in the first assessment of any such course is used in determining the classification of the degree to be awarded.

Progression Requirements
Part A. The minimum number of credits required to progress through each stage are as follows
Stage 1 to 2 120 SCQF credits
Stage 2 to 3 240 SCQF credits
Stage 3 to 4 360 SCQF credits with an average mark on qualifying courses of at least 60%
Stage 4 to 5 See Additional Programme Information
Part B. The minimum grade of D is required in the following courses
Stage 1
A minimum of Grade D in at least 6 courses including Finance and Financial Reporting (C37FF), Calculus A (F17CA), Calculus B (F17CB), Algebra A (F17CC) and Problem Solving (F17GA).

Stage 2
A minimum of Grade D in at least 6 courses including Financial Markets Theory (C38FM), Corporate Financial Theory (C38FN), Multivariable Calculus and Real Analysis A (F18CD), Multivariable Calculus
and Real Analysis B (F18CE), and Linear Algebra (F18CF).

Stage 3
A minimum Grade D in International Bond and Currency Markets (C39SM) and Financial Derivatives (C39SN).

Stage 4
N/A

AWARDS, CREDITS AND LEVEL (UG)
Part A. Credit Requirements

<table>
<thead>
<tr>
<th>Overall Credits</th>
<th>Specific Requirements</th>
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</thead>
<tbody>
<tr>
<td>Integrated Masters</td>
<td>600 SCQF credits including a minimum of 120 credit at Level 11</td>
</tr>
<tr>
<td>Honours Degree (inc.MA)</td>
<td>480 SCQF credits including a minimum of 180 credit at Level 9 and 10 of which at least 90 credits at Level 10</td>
</tr>
<tr>
<td>Ordinary or General Degree</td>
<td>360 SCQF credits including a minimum of 60 credit at Level 9</td>
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<tr>
<td>Diploma of Higher Education</td>
<td>240 SCQF credits including a minimum of 90 credit at Level 8</td>
</tr>
<tr>
<td>Certificate of Higher Education</td>
<td>120 SCQF credits including a minimum of 90 credit at Level 7</td>
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Part B. Mark/Grade Requirements

<table>
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<th>Overall Mark</th>
<th>Overall Grade</th>
<th>Basis of Overall Mark/Grade</th>
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<td>Integrated Masters</td>
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<td>C</td>
</tr>
<tr>
<td>Honours Degree (inc.MA)</td>
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<tr>
<td>Ordinary or General Degree</td>
<td>&gt;=40%</td>
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</tr>
<tr>
<td>Diploma of Higher Education</td>
<td>&gt;=40%</td>
<td>D</td>
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<tr>
<td>Certificate of Higher Education</td>
<td>&gt;=40%</td>
<td>D</td>
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DURATION OF STUDY

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<tr>
<th>IN MONTHS</th>
<th>Full-time</th>
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<td>Integrated Masters</td>
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<tr>
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