1. **Programme Code(s) (recruitment & exit awards)**
   F191-MEL /YYY/ZZZ

2. **Programme Titles for all awards (unabbreviated)**
   Mathematics with a European Language

3. **Main Award(s) (to be recruited to)**
   BSc (F191-MEL)

4. **Exit Awards (for graduation only)**
   BSc (Hons) (F191-YYY)
   BSc (Ord) (F191-ZZZ)

5. **Type**
   School specialist degree

6. **Programme Accredited by**
   G1R1.G1R2. G1R4

7. **UCAS Code**
   Mathematical & Computer Sciences

8. **School Subject Benchmarking Group(s)**
   Mathematics

9. **QAA Subject Benchmarking Group(s)**
   Mathematics

10. **Date of Production/Revision**
    Jan 2012/201415

11. **Stage Composition**

12. **Arrangement of Courses: (Themes and Subject Streams)**

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>13. <strong>Awards, Credits &amp; Levels</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>8 courses: 6 mandatory, 2 optional</strong></td>
<td></td>
<td>One of:</td>
<td></td>
<td></td>
<td></td>
<td>120 credits</td>
</tr>
<tr>
<td></td>
<td>Calculus A</td>
<td>Calculus B</td>
<td>French Language Intermediate 1</td>
<td>French Language Intermediate 2</td>
<td></td>
<td></td>
<td>(8 courses to be completed)</td>
</tr>
<tr>
<td></td>
<td>F17CA</td>
<td>F17CB</td>
<td>C47LF</td>
<td>C47MF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Algebra A</td>
<td>Problem Solving</td>
<td>German Language Intermediate 1</td>
<td>German Language Intermediate 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F17CC</td>
<td>F17GA</td>
<td>C47LG</td>
<td>C47MG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to Statistical Science A</td>
<td>Introduction to Statistical Science B</td>
<td>Spanish Language Intermediate 1</td>
<td>Spanish Language Intermediate 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F77SA</td>
<td>F77SB</td>
<td>C47LE</td>
<td>C47ME</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Programme Code(s) (recruitment & exit awards)
F191-MEL /YYY/ZZZ

### Programme Titles for all awards (unabbreviated)
Mathematics with a European Language

### Main Award(s) (to be recruited to)
BSc (F191-MEL)

### Exit Awards (for graduation only)
- BSc (Hons) (F191-YYY)
- BSc (Ord) (F191-ZZZ)

### Programme Accredited by
- G1R1.1, G1R2, G1R4

### UCAS Code
G1R1.1, G1R2, G1R4

### School specialist degree
Mathematical & Computer Sciences

### QAA Subject Benchmarking Group(s)
- Mathematics

### Date of Production/Revision
Jan 2012/201415

### Stage Composition

<table>
<thead>
<tr>
<th>Stage</th>
<th>Mandatory Courses</th>
<th>Optional Courses</th>
<th>Elective Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 2</td>
<td>8 Courses: (eg 5 mandatory 3 optional)</td>
<td>Multivariable Calculus and Real Analysis A F18CD</td>
<td>Multivariable Calculus and Real Analysis A F18CE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Linear Algebra F18CF</td>
<td>Numerical Analysis A F18NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pure Mathematics A F18PA</td>
<td>One of:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>French Advanced 1 C48LF</td>
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<td></td>
<td>German Advanced 1 C48LG</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Spanish Advanced 1 C48LE</td>
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<td>And</td>
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<td></td>
<td></td>
<td></td>
<td>One of:</td>
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<td></td>
<td></td>
<td></td>
<td>Applied Mathematics A F18AA</td>
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<td></td>
<td>Logic &amp; Proof F17LP</td>
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<td></td>
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<td></td>
<td>Mathematics for Direct Entrants F18GD</td>
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<td></td>
<td></td>
<td>One of:</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>French Advanced 2 C28MF</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>German Advanced 2 C48MG</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Spanish Advanced 2 C48ME</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Year studying abroad F19YA</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Year studying abroad F19YB</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Year long course equivalent to 120 HWU credits</td>
<td>Diploma of Higher Education</td>
<td></td>
</tr>
<tr>
<td></td>
<td>240 credits, incl. at least 90 at Level 8 (16 courses to be completed)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Ordinary or General Degree</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>360 credits, incl. 60 at Level 9 (24 courses to be completed)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Programme Code(s) (recruitment & exit awards)
   F191-MEL /YYY/ZZZ

2. Programme Titles for all awards (unabbreviated)
   Mathematics with a European Language

3. Main Award(s) (to be recruited to)
   BSc (F191-MEL)

4. Exit Awards (for graduation only)
   BSc (Hons) (F191-YYY)
   BSc (Ord) (F191-ZZZ)

5. Type
   School specialist degree

6. Programme Accredited by
   UCAS Code
   G1R1, G1R2, G1R4

7. School
   Mathematical & Computer Sciences

8. QAA Subject Benchmarking Group(s)
   Mathematics

9. Date of Production/Revision
   Jan 2012/2014

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11. Stage Composition

12. Arrangement of Courses: (Themes and Subject Streams)

<table>
<thead>
<tr>
<th>Mandatory Courses</th>
<th>Optional Courses</th>
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</tr>
</thead>
</table>

Stage 4

8 courses: all optional

Four of:
- Abstract Algebra F19PL
- Mathematical Biology A F10AM
- Functional Analysis F10MF
- Optimisation F10MM
- Numerical Analysis C F10NC

Four of:
- Complex Analysis F19MC
- Mathematical Biology B F10AN
- Geometry F10PG
- Partial Differential Equations F10MP
- Numerical Analysis D F10ND

Honours Degree

Requires 480 SCQF credits including a minimum of 180 at Level 9 and 10 and at least 90 at Level 10 (32 courses to be completed)

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The accompanying Programme Notes provide details of stage notes, progression requirements and award requirements for the programme.

The accompanying Programme Description provides details of aims, outcomes, teaching & learning and assessment policies for the programme.
### Stage Notes

Stage One: N/A

Stage Two: N/A

Stage Three:

The students will spend stage 3 studying mathematics in a university where the working language is French, German or Spanish as appropriate so that both mathematics and language skills will be enhanced in equal measure. The study abroad will include a project equivalent to 30 credits. Satisfactory completion of this year will result in the award of 120 credits and entry into year 4. The students will undergo a language oral examination on part of their project on their return that forms part of the assessment for the classification of Honours.

An optional course may not run if there is insufficient demand for it; some choices of courses may not be available to students in some years because of timetabling constraints.

### Progression Requirements

1. Progression through the programme normally requires a minimum of number of credit points:
   - Progression from Stage 1 to Stage 2: 120 credits
   - Progression from Stage 2 to Stage 3: 240 credits
   - Progression from Stage 3 to Stage 4: 360 credits

2. Progression through the programme for an Honours degree normally requires:
   - Stage 1: a minimum of Grade D in at least 6 courses including Calculus A, Calculus B, Algebra A Problem Solving, and all language courses
   - Stage 2: a minimum of Grade D in at least 6 courses including Multivariable Calculus and Real Analysis A, Multivariable Calculus and Real Analysis B, Linear Algebra and all language courses and an overall average mark of at least 60% in all mathematics courses.
   - Stage 3: satisfactory completion of the year abroad including the completion of the project

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.
**Programme Title**
Mathematics with a European Language

**School**
Mathematical & Computer Sciences

**Type**
BSc

**Awards**
BSc Honours, BSc Ordinary, DipHE, CertHE

**UCAS Code**
G1R1/G1R2/G1R4

**QAA Subject Benchmarking Group(s)**
Mathematics

**Date of Production/Revision**
July 2011/2014

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**Award Requirements**
Honours degree classification is determined by performance in language oral examination (20%) and Level 3 and Level 4 qualifying courses studied in year 4 (80%).

The accompanying Programme Structure provides details of courses, awards and credits for the programme.

The accompanying Programme Description template provides details of aims, outcomes, teaching & learning and assessment policies for the programme.

List of Optional courses to be appended
### Educational Aims of the Programme

The principal aims of the programme are to:

- provide high-quality undergraduate education in a wide range of subjects in modern mathematics
- enable students to develop detailed knowledge and critical understanding of both theoretical and applied elements of mathematics
- 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 necessary to go onto to further study or straight into graduate jobs
- enable students to be fluent in their chosen language
- provide experience of university education and cultural life in a partner university in which the language of instruction is either French, German or Spanish

### The Programme provides opportunities for learners to achieve the following outcomes:

#### Understanding, Knowledge and Cognitive Skills

On completion of the programme students should be able to:

- demonstrate an understanding across a broad range of mathematics
- demonstrate a detailed knowledge and understanding in certain specific areas of mathematics
- 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 over a wide range of applications
- be proficient in both oral and written interpreting into and from French German or Spanish

#### Scholarship, Enquiry and Research

On completion of the programme students should be able to:

- demonstrate a good level of skill in calculation and in mathematical manipulation
- demonstrate the ability to present rigorous arguments
- model real-life situations in mathematical terms and analyse the resulting models
- demonstrate computational skills involving the use of a range of software packages
- demonstrate a critical appreciation of intercultural issues
1. **Course Code**  
   F191-MEL

2. **Course Title**  
   Mathematics with a European Language

3. **School**  
   Mathematical & Computer Sciences

4. **Type**  
   BSc

5. **Awards**  
   BSc Honours, BSc Ordinary, DipHE, CertHE

6. **Course Accredited by**  

7. **UCAS Code**  
   G1R1/G1R2/G1R4

8. **QAA Subject Benchmarking Group(s)**  
   Mathematics

9. **Date of Production/Revision**  
   11 February 2008

### Personal Abilities

#### Industrial, Commercial and Professional Practice

On completion of the programme, students will have the knowledge and skills for the development, application and consequent analysis of mathematics and mathematical models as currently required in modern industrial sectors, including IT, finance, engineering, and general science and technology. They will be able to identify, analyse and solve problems, and discuss issues at a professional level; they will also 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. They will also have working knowledge of another culture.

#### Autonomy, Accountability and Working with Others

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
- communicate effectively at all levels and using a range of media
- interact effectively with professionals from a wide and diverse range of areas

#### Communication, Numeracy and ICT

On completion of the programme, students will be numerate, able to make presentations on specialised topics and able to communicate well with peers and other colleagues. They will have extensive IT knowledge and skills and will be able to use them confidently. They will also have the necessary background to enable them to be ready and able to communicate on technical and general matters with peers and senior colleagues. They should also have fluency in French German or Spanish

### Approaches to Teaching and Learning:

The following teaching methods are used: lectures, tutorials, computing laboratory work, coursework, projects, language labs. 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.

### 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. Specific details about methods of assessment are provided in the appropriate course descriptors.

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The accompanying Programme Structure template provides details of courses, awards and credits for the programme.  
The accompanying Programme Notes provide details of stage notes, progression requirements and award requirements for the programme.