Course Specification

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Produced By:	Laura Clode
Status:	Validated

Core Information

Awarding Body / Institution:	University of Wolverhampton		
School / Institute:	School of Mathematics and Computer Science		
Course Code(s):	MM008T01UV MM008T31UV	Full-time Part-time	4 Years 8 Years
UCAS Code:	G106		
Course Title:	BSc (Hons) Mathematics with Physics with Foundation Year		
Hierarchy of Awards:	Bachelor of Science with Honours Mathematics with Physics Bachelor of Science Mathematics with Physics Diploma of Higher Education Mathematics with Physics Certificate of Higher Education Mathematics with Physics Foundation and Preparatory Studies Mathematics with Physics University Statement of Credit University Statement of Credit		
Language of Study:	English		
Date of DAG approval:	16/Apr/2018		
Last Review:	2017/8		
Course Specification valid from:	2017/8		
Course Specification valid to:	2023/4		

Academic Staff

Course Leader:	Dr Andrew Gascoyne
Head of Department:	Professor Amar Aggoun

Course Information

Location of Delivery:	University of Wolverhampton
Category of Partnership:	Not delivered in partnership
Teaching Institution:	University of Wolverhampton
Open / Closed Course:	This course is open to all suitably qualified candidates.

Entry Requirements:

Entry requirements are subject to regular review. The entry requirements applicable to a particular academic year will be published on the University website (and externally as appropriate e.g. UCAS

- Applicants will be expected to hold GCSE English, Mathematics and a Technology or Science based subject at grade D/3 or above (or equivalent)
- A Level minimum of EE
- BTEC QCF Extended Diploma grade PPP, BTEC QCF Diploma grade PP
- BTEC QCF Subsidiary Diploma grade P
- If you've got other qualifications or relevant experience, please contact The Gateway for further advice before applying.
- International entry requirements and application guidance can be found here

Other Requirements

Students must have studied a minimum of two years post GCSE level. However, it is expected that some applicants will be mature students with work experience, who wish to further their career development. These applicants will be processed through standard procedures, which may involve an interview as part of the process. Please see http://wlv.ac.uk/mature for further information.

Those who do not meet the entry requirements may be offered an alternative course.

Distinctive Features of the Course:

BSc (hons) Mathematics with Physics with Foundation Year aims to develop your theoretical understanding of the subjects and apply your skills to real world situations. This course will teach you advanced problem-solving skills which you will be able to employ in many ways across a wide choice of potential careers. This course focuses on developing your mathematical skills to study and explore key topics within physics including classical mechanics and electromagnetism – at both the classical and quantum level.

Mathematics and physics are inextricably linked. The comprehensive grounding in mathematics offered by this programme underpins a unique exploration of physics which is the most multifaceted discipline of Science. While a clear understanding of the subject will be a given, employer's will also be looking for the other qualities imparted through this programme, in particular numerical, analytical and problem solving skills.

You will have the option to undertake a paid placement year, where you will gain invaluable experience in the workplace before returning to complete your final year. Many of the mathematics related placements are very prestigious, and recent placements have included: world renowned engineering companies, Sheffield University research centres and Air Traffic Control amongst many others.

To prepare you for the range of applications of the material you will study, the Foundation Year also includes modules on Communication Skills, Problem Solving and Electrical Technology. When combined with the mathematics and physics modules you study you will be perfectly positioned for the broad range of mathematics and physics modules you will study in subsequent years.

This course is appropriate for those who want to advance their knowledge of mathematics and physics, perhaps with a view to undertaking postgraduate study. A highly analytical degree is the starting point for

many careers, and is highly sought after in many different employment sectors.

We pride ourselves on the academic support and guidance given by our friendly and approachable staff. Students have shown their appreciation for this by the exceptionally high ratings they have given us in the National Student Survey.

Following the changing demand in recent mathematical research and applications, this course has been designed to provide a modern outlook on the subjects and the important role they play in the ever-changing world of commerce, industry and education. Students on the course have the option to do a year-long placement in industry between their second and final years. Students are helped to find suitable placements by the experienced staff in our Placements Unit, who will also liaise with students while on placement and provide support throughout the placement year.

Educational Aims of the Course:

This broad-based scientific degree introduces you to mathematical and physical science concepts and thinking, and helps you to develop a mathematical and scientific approach. You should achieve:

- Lifelong interest in science through modules that are accessible to people of all educational backgrounds
- understanding of the roles of different scientific subjects
- enthusiasm for the study of science through understanding how scientific knowledge develops, and an appreciation of the limits of scientific knowledge
- ability to apply the main tools of applied mathematics (particularly Newtonian mechanics, differential equations, vector calculus, numerical methods and linear algebra), with the opportunity also to meet some of: advanced calculus, fluid mechanics, advanced numerical analysis
- ability to model real-world situations and to use mathematics to help develop solutions to practical problems
- experience of study of mathematics in some breadth and depth
- understanding of some of the more advanced ideas within mathematics
- development of your capability for working with abstract concepts
- ability to communicate mathematical ideas and conclusions effectively
- ability to work with others on mathematical modelling problems and their validation
- skills necessary to use mathematics in employment, or to progress to further study of mathematics
- ability to use a modern mathematical computer software package in pursuance of the above aims
- development as an independent learner.

Intakes:

September

Major Source of Funding:

Office for Students (OFS)

Tuition Fees:

Tuition fees are reviewed on an annual basis. The fees applicable to a particular academic year will be published on the University website.

Year	Status	Mode	Amount
2020/1	H	Full Time / Sandwich	£9250.00
2020/1	Overseas	Full Time / Sandwich	£12250.00
2020/1	H	Part Time	£3050.00
2020/1	Overseas	Part Time	£6125.00

PSRB:

MM008T01UV (Full-time)

Professional Accreditation Body:
Institute of Mathematics and its Applications (IMA)

Accrediting Body:
Institute of Mathematics and its Applications (IMA)

Accreditation Statement:
"This programme will meet the educational requirements of the Chartered Mathematician designation, awarded by the Institute of Mathematics and its Applications, when it is followed by subsequent training and experience in employment to obtain equivalent competences to those specified by the Quality Assurance Agency (QAA) for taught masters degrees."

Approved	Start	Expected End	Renewal
27/Aug/2019	01/Sep/2019	31/Aug/2025	31/Aug/2025

MM008T31UV (Part-time)

Professional Accreditation Body:
Institute of Mathematics and its Applications (IMA)

Accrediting Body:
Institute of Mathematics and its Applications (IMA)

Accreditation Statement:
"This programme will meet the educational requirements of the Chartered Mathematician designation, awarded by the Institute of Mathematics and its Applications, when it is followed by subsequent training and experience in employment to obtain equivalent competences to those specified by the Quality Assurance Agency (QAA) for taught masters degrees."

Approved	Start	Expected End	Renewal
27/Aug/2019	01/Sep/2019	31/Aug/2025	31/Aug/2025

Course Structure:

September (Full-time)

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Year 1

Module	Title	Credits	Period	Type
3MM003	Foundation Mathematics I	20	SEM1	Core
3CC004	Problem Solving in Science and Technology	20	SEM1	Core
3PY002	Communication and study skills	20	SEM1	Core
3AP004	Physics	20	SEM2	Core
3ET007	Practical Engineering Science for Electro-Mechanical design	20	SEM2	Core
3MM004	Foundation Mathematics II	20	SEM2	Core

September (Full-time)

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Year 2

Module	Title	Credits	Period	Type
4MM018	Core Techniques in Mathematics	20	SEM1	Core
4MM023	Mathematics Foundations	20	SEM1	Core
4MM024	Mechanics	20	SEM1	Core
4MM027	Calculus and Linear Algebra	20	SEM2	Core
4AP003	Quantum Mechanics	20	SEM2	Core
4AP004	Electromagnetism I	20	SEM2	Core

September (Full-time)

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Year 3

Module	Title	Credits	Period	Type
5MM022	Group Theory & Differential Equations	20	SEM1	Core
5MM002	Mathematical Analysis	20	SEM1	Core
5AP001	Electromagnetism II	20	SEM1	Core
5MM023	Mathematical Modelling	20	SEM2	Core
5MM024	Discrete Mathematics & Numerical Analysis	20	SEM2	Core
5AP005	Quantum Physics	20	SEM2	Core

September (Full-time)

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

Year 4

Module	Title	Credits	Period	Type
6MM032	Professional Project Management and Practice	20	SEM1	Core
6MM030	Coding Theory & Cryptography	20	SEM1	Core
6AP002	Computational Physics	20	SEM1	Core
6MM024	Mathematics Project	20	SEM2	Core
6AP008	Quantum Optics	20	SEM2	Core

For this option group you must choose a minimum of 20 credits and a maximum of 20 credits

6MM027	Rings, Fields & Galois Theory	20	SEM2	
6MM028	Partial Differential Equations & Fluid Dynamics	20	SEM2	

Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, to create the best learning experience.

Learning, Teaching and Assessment

Academic Regulations Exemption:

None.

Reference Points:

Quality Code - Part A: Setting and Maintaining Academic Standards. Including:

Qualifications Frameworks

Characteristics Statements

Credit Frameworks

Subject Benchmark Statements for Mathematics, Statistics and Operational Research

Subject Benchmark Statements for Physics, astronomy and astrophysics

Quality Code - Part B: Assuring and Enhancing Academic Quality

University Policies and Regulations

Equality Act (2010)

Institute for Mathematics and its Applications (IMA)

Institute of Physics (IOP)

Learning Outcomes:

Foundation Year Course Learning Outcome 1 (UCCLO1)

Solve real world problems using techniques from mathematics and physics.

Foundation Year Course Learning Outcome 2 (UCCLO2)

Communicate scientifically using oral and written skills to provide information to a variety of audiences.

Foundation Year Course Learning Outcome 3 (UCCLO3)

Demonstrate and apply problem solving skills to a range of scientific and technological scenarios.

Foundation Year Course Learning Outcome 4 (UCCLO4)

Demonstrate and apply knowledge of a range of scientific and technological subjects.

Foundation Year Course Learning Outcome 5 (UCCLO5)

Demonstrate personal development in terms of career choice.

CertHE Course Learning Outcome 1 (CHECLO1)

Demonstrate knowledge of the underlying concepts and principles associated with your area(s) of study, and an ability to evaluate and interpret these within the context of that area of study.

CertHE Course Learning Outcome 2 (CHECLO2)

Demonstrate an ability to present, evaluate and interpret qualitative and quantitative data, in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of your subject(s) of study.

CertHE Course Learning Outcome 3 (CHECLO3)

Evaluate the appropriateness of different approaches to solving problems related to your area(s) of study and/or work.

CertHE Course Learning Outcome 4 (CHECLO4)

Communicate the results of your study/work accurately and reliably, and with structured and coherent arguments.

CertHE Course Learning Outcome 5 (CHECLO5)

Demonstrate the qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility.

DipHE Course Learning Outcome 1 (DHECLO1)

Demonstrate knowledge and critical understanding of the well-established principles of your area(s) of study, and of the way in which those principles have developed with an understanding of the limits of your knowledge, and how this influences analyses and interpretations based on that knowledge.

DipHE Course Learning Outcome 2 (DHECLO2)

Demonstrate the ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context.

DipHE Course Learning Outcome 3 (DHECLO3)

Demonstrate knowledge of the main methods of enquiry in the subject(s) relevant to the named award, and ability to evaluate critically the appropriateness of different approaches to solving problems in the field of study.

DipHE Course Learning Outcome 4 (DHECLO4)

Use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis.

DipHE Course Learning Outcome 5 (DHECLO5)

Effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively.

DipHE Course Learning Outcome 6 (DHECLO6)

Demonstrate the qualities and transferable skills necessary for employment, requiring the exercise of personal responsibility and decision-making and undertake further training, developing existing skills and acquire new competences that will enable them to assume significant responsibility within organisations.

Ordinary Degree Course Learning Outcome 1 (ORDCLO1)

Apply an understanding, knowledge and experience of the principles of mathematics (e.g., calculus and linear algebra, mathematical analysis, statistics) to the analysis, design and synthesis of solutions to problems which require mathematics for their resolution.

Ordinary Degree Course Learning Outcome 2 (ORDCLO2)

Demonstrate a knowledge and understanding of the fundamental laws of physics and their principles.

Ordinary Degree Course Learning Outcome 3 (ORDCLO3)

Establish an ability to use mathematical techniques and appropriate ICT packages/systems and analysis to model physical behaviour.

Ordinary Degree Course Learning Outcome 4 (ORDCLO4)

Demonstrate competence in the essential concepts, principles, theories and practices enabling graduate employment in mathematics and physics.

Ordinary Degree Course Learning Outcome 5 (ORDCLO5)

Demonstrate a range of transferable skills in: problem solving; communication; project management; working individually and in teams; self-management.

Ordinary Degree Course Learning Outcome 6 (ORDCLO6)

The ability to gather, evaluate and reflect on information from relevant sources and solutions to problems in the domain of mathematics.

Honours Degree Course Learning Outcome 1 (DEGCLO1)

Apply a full understanding, knowledge and experience of the principles of mathematics (e.g., calculus and

linear algebra, mathematical analysis, statistics) to the analysis, design and synthesis of solutions to problems which require mathematics for their resolution.

Honours Degree Course Learning Outcome 2 (DEGCLO2)

Demonstrate a sound knowledge and understanding of the fundamental laws of physics and their principles.

Honours Degree Course Learning Outcome 3 (DEGCLO3)

Establish an ability to use mathematical techniques and appropriate software packages/systems and analysis to model physical behaviour.

Honours Degree Course Learning Outcome 4 (DEGCLO4)

Demonstrate competence in the essential concepts, principles, theories and practices enabling graduate employment in mathematics and physics.

Honours Degree Course Learning Outcome 5 (DEGCLO5)

Demonstrate a range of social, legal, ethical, professional and project management skills required for continuing professional development in the mathematical sciences within a world-wide context.

Honours Degree Course Learning Outcome 6 (DEGCLO6)

The ability to gather, evaluate and reflect on information from relevant sources and solutions to problems in the domain of mathematics.

Overview of Assessment:

Module	Title	Course Learning Outcomes
3AP004	Physics	UCCLO3, UCCLO4, UCCLO5
3CC004	Problem Solving in Science and Technology	UCCLO1, UCCLO3
3ET007	Practical Engineering Science for Electro-Mechanical design	UCCLO2, UCCLO4, UCCLO5
3MM003	Foundation Mathematics I	UCCLO1, UCCLO3, UCCLO4, UCCLO5
3MM004	Foundation Mathematics II	UCCLO1, UCCLO3, UCCLO4, UCCLO5
3PY002	Communication and study skills	UCCLO2, UCCLO4, UCCLO5
4AP003	Quantum Mechanics	CHECLO2, CHECLO4
4AP004	Electromagnetism I	CHECLO2, CHECLO5
4MM018	Core Techniques in Mathematics	CHECLO1, CHECLO2
4MM023	Mathematics Foundations	CHECLO1, CHECLO5
4MM024	Mechanics	CHECLO3, CHECLO4
4MM027	Calculus and Linear Algebra	CHECLO3, CHECLO4
5AP001	Electromagnetism II	DHECLO4, DHECLO5, DHECLO6
5AP005	Quantum Physics	DHECLO4, DHECLO5
5MM002	Mathematical Analysis	DHECLO1, DHECLO2
5MM022	Group Theory & Differential Equations	DHECLO1, DHECLO3
5MM023	Mathematical Modelling	DHECLO1, DHECLO2, DHECLO6
5MM024	Discrete Mathematics & Numerical Analysis	DHECLO2, DHECLO3
6AP002	Computational Physics	DEGCLO1, DEGCLO2, DEGCLO3, DEGCLO4, ORDCLO1, ORDCLO2, ORDCLO3, ORDCLO4
6AP008	Quantum Optics	DEGCLO1, DEGCLO2, DEGCLO3, DEGCLO4, ORDCLO1, ORDCLO2, ORDCLO3, ORDCLO4
6MM024	Mathematics Project	DEGCLO1, DEGCLO4, DEGCLO6, ORDCLO1, ORDCLO4, ORDCLO6
6MM027	Rings, Fields & Galois Theory	DEGCLO1, DEGCLO4, ORDCLO1, ORDCLO4
6MM028	Partial Differential Equations & Fluid Dynamics	DEGCLO1, DEGCLO2, DEGCLO3, ORDCLO1, ORDCLO2, ORDCLO3
6MM030	Coding Theory & Cryptography	DEGCLO1, DEGCLO4, ORDCLO1, ORDCLO4
6MM032	Professional Project Management and Practice	DEGCLO1, DEGCLO4, DEGCLO5, ORDCLO1, ORDCLO4, ORDCLO5

Teaching, Learning and Assessment:

Teaching: The Mathematics team have acquired a well-deserved reputation for teaching excellence, boasting an outstanding record of performance in the university's award programmes: 2 individual winners of the Inspirational Lecturer Award chosen by the Student Union; the team also exceeds the norms for the number of members who have a recognised teaching qualification and 88% of the team hold at least one formal teaching qualification. We have embedded inclusive learning, teaching and assessment into our courses; we appreciate and value the varied backgrounds of our students and enhance the concept of 'global citizenship'. The teaching on the course will be delivered using standard guided learning methods of lectures, tutorials, workshops and seminars, as well as independent study and other experiential learning opportunities.

Learning: The experience of studying at University is about much more than just gaining knowledge and understanding of a subject, it is also about developing additional skills and capabilities that you can take with you into a wide range of different settings. While at university you will have the opportunity to:

1. acquire, generate, interrogate and apply knowledge from a wide range of sources,
2. develop research skills to enable analysis, synthesis, understanding and evaluation of data and information.
3. demonstrate self-discipline and organizational skills by meeting deadlines, and taking responsibility for your own development and learning
4. present ideas clearly in an informed and persuasive manner to a variety of audiences.
5. be innovative, creative and enterprising work collaboratively, whilst acknowledging, respecting and engaging with the views of others in a constructive and empathetic manner
6. draw on professional advice and feedback to reflect on and improve your own learning and professional practice;
7. prepare for the world of work through engagement with real life situations, briefs and problems
8. engage with new ideas and ways of working as an active member of the communities in which you study, live and work.

All Mathematics with Physics graduates will surely be users of advanced technologies. However, on your course you will develop your skills to encompass digital literacy more fully such as learning how to find information and how to take best advantage of digital resources and the Internet to make you effective in the Information Age. You will use these sources of information as a basis for reports, presentations and academic essays, so your work is located within the wider academic and professional context.

Assessments: Formative assessments provide feedback and are not used in the grading process. Their purpose is to provide both tutors and students with a gauge of progress. Summative assessments are used in the grading process. Most summative assessments (with a notable exception of exams) also have a formative aspect to them in that tutors provide written feedback on the work. Students should use this feedback to improve their performance on future assessments. Feedback on an assessment on one module may help with assessments on other modules. Assessment methods are closely linked to the learning and teaching approaches used. Below are examples of the assessment methods that you may encounter.

Assignments – task based and report based assignments. Coursework frequently requires the writing of reports documenting the development of solutions. It is frequent practice to ask students to reflect on their learning experience as part of the coursework.

Case studies – based on realistic scenarios. Analysis, application and evaluation skills are developed via case studies as appropriate for the topic areas.

Practical exercises – tutorials and workshop sessions, which aid understanding and application of knowledge using a variety of tools within practical settings in workshops as well as assessing depth and breadth of understanding and application of subject knowledge. Practical exercises are the primary mechanisms for assessing analysis and evaluation. The tasks undertaken involve well-defined problems with varied level of complexity. Some practical exercise may involve interactive learning tools that are able to provide formative feedback.

Portfolios / e-portfolios – contain samples of work demonstrating what the student has accomplished. This is a good way to assess learning and development which is illustrated by multiple examples of work, opportunities for self-assessment and reflection chartering over a period of time. Tasks set relate to outcomes being assessed thus documenting evidence of development towards mastering the identified outcomes and skills. Enhances the assessment process by demonstrating a range of skills and understandings of the subject area by the student. Some portfolios are sometimes called Learning Journals.

Formal presentations - you may be required to present your work to a group of tutors or to the rest of the class. This may be a demonstration of practical work or something you developed or built or may present the results of a study. These are an important way of assessing your communication skills.

Examinations and Time-Constrained Assessments (tests) - may follow a traditional format or on-line alternatives. They are used to ensure breadth of knowledge has been acquired. TCA and examinations, some of which are case study based, emphasise application of knowledge and skills.

Group Project Work - where group work is assessed, mechanisms are used to allow individual contributions to be reflected in the grading as appropriate e.g. peer assessment of individual group members, individual reflection on the process and the product.

Peer-group assessment – using student feedback, particularly in group assessments to identify each student's contribution to the work.

Individual Project Work - This type of work is supported by either regular meetings with a named project supervisor or through seminars.

Work-based assessments – used to assess the student's work-based modules and enable feedback from work placement organisations. These are usually used for students who are industry-based and doing their course part-time or students doing a placement.

Assessments will also focus on skills such as team working, time-management and developing Continuing Professional Development (CPD) awareness, as well as discipline-specific skills related to the analysis, design, development, implementation, testing and synthesis of mathematical solutions to problems. Typical tasks include: production of reports for differing target audiences, presentations, demonstrations and viva voce, allowing assessment of the breadth and depth of knowledge, analysis and synthesis, communication, and evaluation within mathematics and physics.

Assessment Methods:

At the University of Wolverhampton, a variety of modes of assessment will be used to support and test your learning and progress and to help you develop capabilities that are valued beyond your University studies and into your working life. Your course may include a variety of assessment activities:

Written examinations (including online examinations, open and closed book examinations and quizzes) Coursework (for example, essays, reports, portfolios, project proposals and briefs, CVs, poster presentation) Practical (for example, oral and video presentations, laboratory work, performances, practical skills assessment)

In the final year of your undergraduate degree, and at the end of your postgraduate degree, you are likely to be expected to write an extended piece of work or research, such as a dissertation or a practice-based piece of research.

Student Support:

General University support: University Learning Centres are the key source of academic information for students. Learning Centres provide physical library resources (books, journal, DVDs etc.) and offer a range of study areas to allow students to study in the environment that suit them best: Social areas, quiet and silent areas. Learning Centres also provide access to wide range of online information sources, including eBooks, e-Journals and subject databases.

Learning Centres also provide students with academic skills support via the Skills for Learning programme. Students on campus can attend workshops or ask for one-to-one help on a range of skills such as academic writing and referencing. Students can access a range of online skills material at: www.wlv.ac.uk/lib/skills

The University Student Support website offers advice on a variety of matters (careers, counselling, student union advice, etc.) Students can also access these services by booking appointment with the SU, careers, counselling services, etc.

Course Specific Support: At the start of each year of your course you will be assigned a Personal Tutor who will guide you through the induction process and provide support and academic counselling throughout the year on an appointment basis. They will offer you advice and guidance to help you liaise with other staff and support facilities in the School and University. You will meet your Personal Tutor at least 3 times a year, which must include meetings at critical points in your course.

The Student Services Office provides academic counselling and will be accessible throughout the week on a drop-in or appointment basis to discuss timetables, requests for extensions, requests for extenuating circumstances, general concerns about study and student life and general programme planning. They will act as a first point of contact in relation to leave of absence (including returning after leave), withdrawal, transferring to another course (internal and external) and changes to mode of attendance. Your Course Leader

will be available thereafter for meetings by appointment to discuss leave of absence, withdrawal, transferring to another course (internal and external), changes to mode of attendance, returning after leave of absence and direct entrants.

Subject support: Throughout your studies there will be tutorials, workshops, seminars and meetings which provide the primary opportunities for students to interact with staff on topics relating to modules. All modules provide at least one of these forms of face-to-face support where you will have the opportunity to seek help with your academic studies.

Formative feedback - tutors provide personalised written feedback on most summative assessments. The mechanism for feedback from purely formative tasks varies between assessments, but will always be provided in some form. Online formative tasks often provide feedback straight away. On occasions tutors may provide generalised verbal feedback to the whole class on points relating to an assessment

Assessment and subject-based surgeries provide additional student support for subjects that students often need extra help with. They are often concentrated around the times when assessments take place. Revision sessions are provided for all modules that have exam-like tests and enable you to interact with tutors to review parts of the course. Mock exams and tests provide opportunities to experience an examination environment before final summative tests and give you feedback on your understanding.

Mathematics support is also provided by the drop-in service at the Mathematics Support Centre (located in the Harrison Learning Centre at City Campus), open three days a week during term-time. This support is provided by lecturers from the Mathematics team and by postgraduate Mathematics students.

Employability in the Curriculum:

Throughout your course you will build up your professional and employability skills and learn to apply the knowledge you have acquired in an enterprising way. You will constantly nurture your own intellectual curiosity. The tools, methodologies and techniques that you will learn have been carefully selected to prepare you with the skills that employers demand and the opportunities for work based learning and placements will allow you to gain the vital experience that they often expect.

You will learn how to undertake mathematical and statistical analysis using industry standard software such as Maple, Matlab, R and Python. In addition to this, the University of Wolverhampton Enterprise and Employability Awards are embedded as compulsory components of your studies. These awards are delivered in collaboration with the University Careers Enterprise Unit. The content of these awards will be reflected upon again in your final year in preparation for your next steps after the completion of your undergraduate studies, whether that be graduate employment or further study.

Various support programmes exist at multiple levels throughout the Institution, including the academic skills tutorials provided centrally by the Directorate of Academic Services, and the skills required for graduate employment are embedded within the curriculum and delivered by those mathematics staff who have relevant professional and industrial expertise.

Mathematics and physics graduates may aspire to a wide variety of careers, such as accountancy, actuarial work, operational research, engineering, computing, cryptography and statistics. The shortage of mathematics and physics graduates within the UK economy is widely reported, hence these graduates are highly employable and your graduate employment prospects upon successful completion of this course are very high.