4.5. Assessment

Each module of the programme is individually assessed. Assessment may comprise formative, continuous assessment (CA) or summative, written examinations (Exam) or a combination of both. These assessments may also include project work, portfolios or other forms of assessment appropriate to the learning outcomes of the module.

Written examinations for modules are normally held in the examination period immediately following the semester in which the module is studied, in December-January or in May. The examination periods in TU Dublin are given by the Academic Calendar. For in-person examinations, the examination timetable is published by the examination offices of the University.

Assessments may also be in an online or remote format where deemed appropriate by the Programme Team. These are conducted under strict procedures to ensure fairness and the accurate assessment of learning. Details in relation to remote assessments (if any) will be provided by the Year Tutor and individual module lecturer.

In order to pass a module a candidate must attain the pass mark when their assessment component marks are combined to calculate a final mark as per the module description. In addition, some modules may possess thresholds in some components. These thresholds must be met to allow final mark to be calculated. Where a module mark can be calculated but falls just short of the pass mark compensation may be applied at the discretion of the examination board in accordance with University Assessment Regulations and the programme document.

For multi-stage programmes progression from one stage to a subsequent stage is contingent upon passing all modules. Awards are made to students who successfully complete a full suite of credits. Students who do not pass a module must be reassessed in that module until they have demonstrated the attainment of the learning outcomes.

Students who require reassessment in one or mode components of a module or have deferred an examination must undertake a module assessment at the next available sitting. In these circumstances, written examinations for modules may also take place during the examination session at the end of August. A student who is not successful in a module that is assessed totally by CA cannot normally re-sit the CA at supplemental examinations. However, the student may, at the discretion of the examination board, be allowed to undertake unsupervised CA for consideration at the supplemental examination board.

Students must be registered for all examinations they will be undertaking. This includes sessional and supplemental examinations. An examination fee may be payable. Late registration for exams may incur an additional late fee. Information about examinations and registration is available from the Student Service Centres and the Examinations office. Correspondence and information about examinations is distributed via email and therefore students should ensure that they **check their TU Dublin email regularly**. *Dates and times of assessments can change and examination timetables should also be monitored for these changes.* **It is a student's responsibility to ensure that he/she is registered for all required examinations in each appropriate session and to ensure that they are aware of the times and dates and attend all their assessments.**

All students must adhere to the regulations of the University in respect of examinations as described in the University Assessment Regulation or otherwise communicated by invigilators or by the University. Any student found to be in contravention of regulations will be subject to the actions and penalties described in the University Assessment Regulations.

Please note it is against the regulations of the University for a candidate to be in possession of a mobile telephone during examinations.

4.5.1. Programme-specific assessment details

Details of the assessment components for each module are given in the Programme Structure section. Lecturers will inform students of the dates of any continuous assessments or submission deadlines.

The pass mark for all modules is 40%. Students with marks in the range 35%-39% may be eligible for compensation in accordance with the University Assessment Regulations. *Compensation within this programme is not allowed from or to modules with 100% continuous assessment.*

The following additional requirements should be noted:

All stages:

- Where a module is assessed by both continuous assessment and examination components, a threshold of 35% applies to the examination component. Thus, the exam mark must equal or exceed 35% and the final mark – calculated from all assessment components of a particular module – must equal or exceed 40% for the ECTS credits associated with that module to be awarded.

Stage 2:

- There is a threshold of 35% on the continuous assessment for Introduction to Ordinary Differential Equations through Python (MATH 2812).
- There is a threshold of 35% on each individual project component mark and on the final presentation mark that comprise the continuous assessment for Mathematical Modelling (MATH 2809).
- There is a threshold of 40% on each task component mark that comprise the continuous assessment for Professional Development II (Prof 2801).

Stage 3:

- MATH3812 Work Placement will be assessed as either Pass or Fail.

Stage 4:

- There is a 35% threshold on the final presentation component of the MATH4824 Project module
- Each case-study for the MATH4827 Case Studies in Industrial Modelling module must be passed individually.

4.5.2. Plagiarism and cheating

Plagiarism is cheating. The University Assessment Regulations supports that *Plagiarism, and other forms of cheating, are breaches of academic values, academic conventions and codes of practice.* The School of Mathematics & Statistics does not tolerate cheating in any form and will investigate any suspicions of cheating. Any form of cheating will be investigated by the School rigorously under the procedures described in the University Assessment Regulations. Students are advised to familiarise themselves with the appropriate sections of these regulations that describe actions deemed as cheating. In particular, the following are forms of cheating:

- plagiarism – taking or using another person's thoughts, writings or inventions as your own. To avoid plagiarism you must make sure that quotations from whatever source must be clearly identified and attributed at the point where they occur in the text of your work by using one of the standard conventions for referencing. Plagiarism can be either an intentional act whereby work is deliberately utilised and claimed as one's own, or it can occur unintentionally either through bad academic practice by the student or failure to inform yourself about the University's regulations. Plagiarism is not confined to written assignments, projects or theses. It incorporates all academic work, including practical workshops, demonstrations, three-dimensional work and artistic practice;
- submitting other people's work as your own - either with or without their knowledge. This includes copying in examinations; using notes or unauthorised materials in examinations;
- impersonation - taking an assessment on behalf of or pretending to be another student or allowing another person to take an assessment on your behalf or pretend to be you;
- contravention of the guidelines or statements in relation to the use of AI or non-disclosure of the use of pertinent AI tools when submitting coursework.

A student found guilty of plagiarism, that is the intentional or unintentional use of another's ideas, words, visual or audio material without fully and accurately referencing and crediting the source, will automatically fail a module and may incur a more severe penalty.

Cheating in any assessment (taking any action designed to gain an unfair advantage) will also be severely punished through the disciplinary procedures of the University. Thus, bringing unauthorised materials into an assessment is cheating. In particular, **only calculators approved by the University may be used in examinations (where the use of a calculator is explicitly permitted on the front cover) and it is against the regulations of the University for a candidate to be in procession of a mobile telephone or device capable of receiving data during examinations.**

4.5.3. Examination results

The results of examinations and final module marks are released centrally by the examinations offices of the University. Marks are not available from academic staff.

4.5.4. Reassessment

Students who do not reach the pass mark and do not receive a compensated pass in a module will require reassessment in that module. All credits must be passed to receive an award. The examination board may require that candidates are reassessed in either the written examination, continuous assessment or both components of a module. If a candidate is required only to be reassessed in one element of a module (examination or continuous assessment), as a second or subsequent attempt, then, at the discretion of the examination board, the final mark for that module may be based entirely upon this component where this is beneficial to the candidate.

Students who are reassessed in *any element* of a module, for which it is deemed to be their second or later attempt, will have their *overall* mark in that module capped at the pass mark.

4.5.5. Circumstances affecting examinations

Where students experience circumstances that detrimentally affect their preparation for an assessment or performance in an assessment they should complete a Exceptional Circumstances form (Forms can be found here.) For all students in the School of Mathematics & Statistics, the

procedure for submission of this form are separate guidance provided for students studying programmes in the School of Mathematics & Statistics.

All Exceptional Circumstances should be accompanied by documentary evidence and that the procedure for circumstances that affect semester-time Continuous Assessments may differ from that for Written Examinations administered by the Examinations Office. In particular, Exceptional Circumstances affecting a continuous assessment should normally be submitted directly to the School Administrator.

The deadline for submission of Exceptional Circumstances forms is stipulated by the University and forms received after this deadline may not be considered.

If unavoidable circumstances arise in advance of an examination session which means that a student is unable to sit his/her examinations, they may request a deferral of examinations. This request, supported by documentary evidence, should be submitted to the School Office and will considered by the Head of School. The request for deferral of examinations should normally be submitted at least 4 weeks prior to the start of the relevant examination session. In this eventuality, students should consult with the Head of Discipline with responsibility for programme oversight before submitting a request. If their request is endorsed, students will be required to sit the examination at the next available sitting. Deferral of an examination, and any subsequent requirement for reassessment, may significantly delay the date of their final award.

Students will receive feedback on their performance in any assessment. In addition, students will be given an opportunity to view their examination scripts during periods designated by the School. Students may only request to view scripts during these designated periods. Where students wish their examination material to be rechecked or remarked they must submit a request via the appropriate form within the deadlines set by the School and University. The Year Tutor can advise students on the procedures associated with rechecks and remarks.

4.5.6. Award

The award[4] BSc (Hons) Mathematics & Statistics or BSc (Hons) Mathematics & Statistics for Data Science is awarded to candidates registered on these programmes who successfully complete and are awarded credits for all modules in each stage of the respective programmes.

4.5.6.1. Stage GPA

When a student has passed (or been compensated in) all elements of a particular stage, each module will receive a Grade Point Value (GPV) as follows:

Grade Point Value	% Grade	Alpha Grade
4.0	80 – 100	A1
3.8	75 – 79	A2
3.6	70 – 74	A3
3.2	65 – 69	B1
3.0	60 – 64	B2
2.8	55 – 59	B3
2.6	50 – 54	C1
2.4	45 – 49	C2
2.0	40 – 44	C3
1.6	35 – 39	D/DF
0	≤ 34	F

[4] Previous award titles are Mathematical Sciences and Industrial Mathematics. Students graduating before September 2029 will receive the prior award title.

The Grade Point Average (GPA) for that Stage is then calculated using these GPVs:

Stage 2 GPA = (Element 1 + Element 2 + Element 3 + Element 4+ Element 5 + Element 6 + Element 7 + Element 8 + Element 9 + Element 10 + Element 11 + Element 12)/12

Stage 3 GPA = (Element 1 + Element 2 + Element 3 + Element 4 + Element 5 + Element 6 + Element 7)/7

Stage 4 GPA = ((Element 1 + Element 2 + Element 3 + Element 4 + Element 5 + Element 6 + Element 7 + Element 8 + Element 9) + 3* (Project)) /12

4.5.6.2. Final award

The final award at the end of Stage 3 (for those students applying to exit at this point) is the greater of the following two formulae:

0.15 * Stage 2 GPA + 0.85 * Stage 3 GPA

OR

Stage 3 GPA

The final award (at the end of Stage 4) is the greater of the following two formulae:

0.15*Stage 2 GPA + 0.15*Stage 3 GPA + 0.70*Stage 4 GPA

OR

Stage 4 GPA

The first formula effectively allows a 15% weighting to second and third stage marks and a 70% weighting to final stage marks. The purpose of this is to encourage the student to work well in second and third stage and to reward he/she for so doing.

The first formula allows a 15% weighting to Stage 2 marks. It aims to encourage students to work well in Stage 2 and to reward them for so doing.

4.5.6.3. Final award for advanced entry students

The final award (at the end of Stage 4) for advanced entry students who enter the third stage of the programme is the greater of the following two formulae:

0.15*Stage 3 GPA + 0.85*Stage 4 GPA

OR

Stage 4 GPA

The first formula effectively gives 15% weighting to third stage marks and 85% weighting to final stage marks.

The formula to calculate the final award for advanced entry students who enter fourth stage of the programme is: Stage 4 GPA

4.5.6.4. Awards

The award of BSc (Ord) – for students exiting at the end of Stage 3 – is made with the following classifications:

Final Award Calculation	Classification
3.6	Distinction
3.0 – 3.5	Merit, Grade One
2.6 – 2.9	Merit, Grade Two
2.0 – 2.5	Pass

The award of BSc (Hons) is made with the following classifications:

Final Award Calculation	Classification
3.6	First Class Honours
3.0 – 3.5	Second Class Honours, First Division
2.6 – 2.9	Second Class Honours, Second Division
2.0 – 2.5	Pass

NB: Students who fail the assessment of one or more of the modules which contribute to their final award classification may resit the assessment once for each of those modules without prejudice to the award of Honours/Merit or Distinction.

Students who fail the resit of any of these modules (i.e. require more than two attempts) will not be eligible for the Honours/Merit or Distinction classification.