



School of Mathematical Sciences

Terms & Conditions for Students Sitting Examinations

for

Actuarial Exemptions

August 2023

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1. Introduction

- i. DCU students, who are registered on specified undergraduate degree programmes of the School of Mathematical Sciences, may, on the basis of their DCU examination results, be recommended to the Institute and Faculty of Actuaries (IFoA) for exemption from taking certain specified professional examinations of the IFoA. Further details on the examinations on the IFoA can be found on their website (www.actuaries.org.uk).
- ii. There are two mechanisms by which exemptions can be gained, namely under (1) an Accreditation Agreement (AA) or (2) a Subject-by-Subject Exemption Recognition Agreement (ERA) between DCU and the Institute and Faculty of Actuaries.
- iii. The Faculty of Science & Health and the School of Mathematical Sciences shall facilitate these arrangements under the terms and conditions set out in this document, which are valid for the academic year 2012/2013 and subsequently. The right is reserved to amend these terms and conditions or to discontinue the scheme in subsequent academic years.

2. Terms Used in this Document

In this document, some terms are abbreviated:

- i. The *School* means the School of Mathematical Sciences in DCU.
- ii. The relevant undergraduate degree programmes of the School are the BSc in Actuarial Mathematics (accredited programme) and the BSc in Financial Mathematics (ERA only).
- iii. The *Faculty Office* means the administrative office of the Faculty of Health & Science in DCU.
- iv. *Independent Examiners* refers to the examiners appointed by the Institute and Faculty of Actuaries who make recommendations as to which DCU students should gain exemptions as per the accreditation or ERA agreements.
- v. If the Independent Examiners base their recommendation for an exemption in a professional examination of the Institute and Faculty of Actuaries (IFoA) on a student's performance in a DCU module, such a module is termed an *actuarial module* and the final examination is called an *actuarial module examination*.
- vi. In what follows, we may use the abbreviations *ACM* for the BSc in Actuarial Mathematics, *FIM* for the BSc in Financial Mathematics, *PAB* for the Progression & Awards Board, *IFoA* for the Institute and Faculty of Actuaries, *CT* for Core Technical, *CP* for Core Principles, *AA* for the Accreditation Agreement and *ERA* for the Exemption Recognition Agreement.

3. Gaining Exemptions from Actuarial Examinations

- i. To qualify as an actuary with the Institute and Faculty of Actuaries (IFoA) one must pass the professional examinations of the Institute and Faculty of Actuaries. Please see the IFoA website (www.actuaries.org.uk) for details on the routes to qualification as an actuary with the IFoA.
- ii. As an alternative to sitting some of the IFoA's professional examinations undergraduates on certain DCU undergraduate programmes (see §2) may be exempted (by the IFoA) from specified professional examinations, on the basis of recommendations from Independent Examiners approved by the IFoA. Students may claim such exemptions following successful completion of their degree programme (see §8). The exemptions only map to certain IFoA professional examinations as described below and further examinations are required to qualify as an actuary with the IFoA.
- iii. In 2019 the IFoA introduced a new curriculum referred to as Curriculum 2019. For students commencing one of the relevant degrees (see §2) from September 2019 the Independent Examiners exemption recommendations will map directly to the IFoA Curriculum 2019 Core Principles (CP) professional examinations. The IFoA Core Principles subjects that students may be eligible for an exemption recommendation are listed in Table 1.

IFoA Core Principles (CP) Subjects	
CS1: Actuarial Statistics	CB1: Business Finance
CS2: Risk Modelling and Survival Analysis	CB2: Business Economics
CM1: Actuarial Mathematics	
CM2: Financial Engineering and Loss Reserving	

Table 1: IFoA Core Principles subject examinations for which DCU students commencing relevant undergraduate degrees from September 2019 onward may be eligible for exemption recommendations.

- iv. For students commencing one of the relevant degrees prior to September 2019 the Independent Examiners exemption recommendations will map to the previous IFoA Core Technical (CT) subjects. When students apply to the IFoA to claim their exemptions after graduation their CT exemption recommendations will map to the Curriculum 2019 Core Principles examinations as described in §8. For students who commenced prior to September 2019 and who repeat one or more years of their degree the mapping of exemption recommendations to either the IFoA core Technical or Core Principles subjects will be decided on a case by case basis. The IFoA Core Technical subjects that students may be eligible for an exemption recommendation are listed in Table 2.

IFoA Core Technical (CT) Subjects	
CT1: Financial Mathematics	CT5: Contingencies
CT2: Finance & Financial Reporting	CT6: Statistical Methods
CT3: Probability & Mathematical Statistics	CT7: Business Economics
CT4: Models	CT8: Financial Economics

Table 2: IFoA Core Technical subject examinations for which DCU students commencing relevant undergraduate degrees prior to September 2019 may be eligible for exemption recommendations.

- v. ACM students have the opportunity to gain exemptions under either the AA or ERA mechanisms. Students who are awarded the BSc in Actuarial Mathematics but who do not achieve the minimum Accreditation Average, as described in §4, may be awarded exemptions from those individual CT/CP Series Subjects where their marks reach the standard agreed by the Independent Examiner, as described in §5. ACM students may be recommended for exemption from the IFoA subjects listed in Table 1 (new entrants from September 2019) or Table 2 (entrants prior to September 2019).
- vi. FIM and Common Entry Mathematical Sciences students can apply for exemptions in a subset of the CT/CP Series Subjects listed in Tables 1 and 2 and under the ERA mechanism only. The subset of subjects is CT1, CT3, CT7 and CT8 for pre September 2019 entrants and CS1, CM2 and CB2 for new entrants from September 2019.
- vii. The material for an exemption subject is covered by one or more DCU modules. The mapping between DCU modules and IFoA CT/CP Series Subjects varies from year to year and is detailed in §10 and §11.
- viii. The IFoA examinations for the Core Principles subjects, CS1, CS2, CM1 and CM2 each consist of two examinations – referred to as the A and B papers. The A paper is a traditional written examination and the B paper is a practical computing examination. DCU students recommended for exemptions from CS1, CS2, CM1 and CM2 will be recommended for exemption from both the A and B papers for each subject. It is not possible to be recommended for exemption from either the A or B papers individually.
- ix. In what follows, if a re-sit actuarial module examination is treated by the University as a first attempt, for whatever reason, it will also be treated as a first attempt for exemption purposes.
- x. In the event of illness or other documented extenuating circumstances, a Progression & Award Board may defer some of a student's actuarial module results. Deferred results in the original sitting are not counted as attempts nor do they contribute to a student's Accreditation Average.

4. The Accreditation Agreement (AA)

The conditions set out in this section apply only to students who will graduate with a BSc in Actuarial Mathematics:

1. (a) Each student's Accreditation Average will be the weighted average of the overall (i.e. combined continuous assessment and examination) module marks on the actuarial modules corresponding to the CT/CP Subjects. The DCU modules mapping to the IFoA CT/CP subjects for exemption purposes are set out in §10 and §11. Except for students who commence Year 4 of BSc Actuarial Mathematics prior to September 2021¹, the Accreditation Average will be calculated as the simple average of exemption marks among all CP subjects². The exemption marks of a CP subject are calculated as the weighted average of the overall module marks (obtained at the first attempt) from those DCU modules mapping to such CP subject as detailed in §10, and the weighting is according to the percentages shown in §10.

(c) If the student is awarded the BSc in Actuarial Mathematics and attains an Accreditation Average of 65% or above, a recommendation for exemption will be given for all CT/CP Subjects listed in Table 1 or Table 2 depending on year of entry.
2. A minimum mark of 40%, without condonement or compensation for fail marks, must be obtained in each actuarial module included in the calculation of the Accreditation Average. If the minimum mark is not obtained in every actuarial module, then Subject-by-Subject exemptions (under the ERA) are the only option for the candidate.
3. If a re-sit actuarial module examination is treated by the University as a first attempt, for whatever reason, it will also be treated as a first attempt for the calculation of Accreditation Average.
4. If a student fails a module and needs to re-sit a module in order to obtain the University qualification or to progress in the programme, the maximum mark for that module that can be included in the calculation of that student's Accreditation Average for exemptions is the pass mark.
5. Students may not re-sit modules, which they have passed under the University's rules, with the sole intention of increasing their Accreditation Average.
6. Discretion may be applied by the Independent Examiner(s) in awarding full exemptions to students who fall short of the required Accreditation Average.
7. For students who commenced prior to September 2019 and who repeat one or more years of their degree the exemption mark will be decided on a case by case basis.

¹ For these students, each of the DCU actuarial modules (listed in §11) is weighted according to its credit rating. The weights currently used are 100 for a 5-credit module, 150 for a 7.5 credit module and 200 for a 10-credit module.

² Simple average means summing the exemption marks over all CP subjects and then dividing the sum by the number of CP subjects counted. For students who commenced prior to September 2019 and who repeat one or more years of their degree some CP subjects may be replaced by CT subjects and the replacement will be decided on a case by case basis.

5. The Exemption Recognition Agreement (ERA)

1. A student who is awarded the BSc in Actuarial Mathematics but who does not achieve the Accreditation Average of at least 65% (as described in §4) may be awarded exemptions from those individual CT/CP Subjects for which their CT/CP exemption marks (see §5) reach the standard agreed by the Independent Examiner. The relevant modules for CT/CP subject are listed in sections §10 and §11.
2. Students on the other undergraduate degree programmes (i.e. FIM and Common Entry Mathematical Sciences students) may be awarded exemptions from those individual CT/CP Subjects for which their CT/CP exemption marks (see §5) reach the standard agreed by the Independent Examiner.
3. The exemption mark for a CT/CP Subject is calculated as the weighted average of the actuarial module marks (obtained at the first attempt) for those DCU modules mapping to the CT/CP subject as detailed in §10 and §11, and the weighting is according to the percentage shown in §10 and §11. The actuarial module marks will be the weighted average of the associated overall (i.e. combined continuous assessment and examination) module marks.
4. Re-sit marks can only be counted for exemptions where the student needs to re-sit a module in order to obtain the University qualification or to progress to the next stage of the programme. Students may not re-sit modules with the intention of increasing their module marks solely for Subject-by-Subject exemptions.
5. The maximum mark for a re-sit module that can be included in the calculation of a student's exemption mark is the pass mark.
6. If a re-sit is treated by the University as a first attempt, for whatever reason and however many times it has been taken, it will also be treated as a first attempt for the calculation of exemption marks.

6. General Conditions Relating to Exemptions

1. Students will only be notified of which exemptions they have been recommended for when they have completed the final year of their degree.
2. The registration and administration facility which the School and Faculty Office seek to provide for actuarial exemptions is in addition to, and separate from, the programme for which a student is registered with the University.
3. This facility is not part of the contract which exists between a student and the University in relation to the programme for which they are registered. The Registry's student records and transcripts only record the results gained by students in examinations which are taken as part of their degree programmes.
4. Students may not take actuarial module examinations for exemption purposes if, at the time the examinations take place, they have graduated or they are not currently registered for that module on one of the School's undergraduate degree programmes.
5. Neither the School, the Faculty nor Dublin City University are liable in any way if an Independent Examiner does not recommend to the IFoA that a student be exempt from taking a professional actuarial examination.
6. The DCU appeals procedures cannot be used to overturn or amend any exemption decisions made by the Independent Examiners. Such decisions include any marks which they endorse, or any list of candidates which they present for exemption purposes to the IFoA.
7. Students who do not agree with, or who do not adhere to, these terms and conditions will not be recommended for exemptions.
8. Students guilty of academic misconduct in modules mapping to IFoA exemption subjects will not be eligible to be recommended for an exemption from the corresponding IFoA subject. In addition, such students on the BSc Actuarial Mathematics (ACM) programme will no longer be eligible for accreditation agreement and will only be eligible for recommendation for exemption from the remaining IFoA subjects on a subject-by-subject basis (ie. under the ERA approach). The independent examiners reserve the right to impose harsher sanctions on the offender's exemption recommendation.

7. Communicating with the University

1. Following the relevant Progression & Award Board meetings, the University will contact the Education Officers of the IFoA, listing the specific exemption recommendations for each student (obtained via accreditation or under the ERA).
2. Once authorization is received from the Education Officers of the IFoA (usually in mid-July) graduating students will be notified by letter by the University confirming the exemptions for which they have been recommended. The timing of such correspondence depends solely on the date of response from the Education Officers and, as a consequence, is not at the discretion of either the Faculty Office or the School.
3. Students who wish to query the contents of, or seek clarification on, an exemption letter are advised to contact the Actuarial Exemption Administrator in the Faculty Office.
4. On all academic matters, students are asked to contact the relevant module co-ordinator(s). Please note that the recommendations of the Independent Examiners (appointed by the IFoA) are not open to appeal by the University.

- Students should contact the School's Actuarial Exemptions Co-ordinator only when they wish to clarify matters relating to the exemptions process and only after carefully reading this document.

8. Claiming Your Exemptions

- In order to claim your exemptions (only after graduation from DCU), you must become a student member or an affiliate of the Institute and Faculty of Actuaries (IFoA). You must then submit the "Application for Exemptions" form. The Profession will match your application with the information provided by the University and then confirm your exemptions. Further information (including deadlines for applying where applicable) can be found on the web-page:

<http://www.actuaries.org.uk/students/pages/exemptions-exams>

- For students who entered prior to September 2019 and who have been recommended for exemption from the IFoA's previous curriculum examinations (i.e. The Core Technical (CT) subjects) the IFoA will map their exemptions to exemptions from the Curriculum 2019 Core Principles subjects as follows:

Core Principles (CP) Subjects	Core Technical (CT) Subjects
CS1 (A + B)	CT3
CS2 (A + B)	CT4 + CT6
CM1 (A + B)	CT1 + CT5
CM2 (A + B)	CT8
CB1	CT2
CB2	CT7

Table 3: Mapping of IFoA Core Technical exemptions to the Curriculum 2019 Core Principles subjects.

Note that students must be recommended for exemption (via either the AA or ERA route) from both CT4 and CT6 to be eligible for an exemption from CS2. Similarly, students must be recommended for exemption from both CT1 and CT5 to be eligible for an exemption from CM1. The mapping to CS1, CS2, CM1 and CM2 subjects will cover both the A and B papers for these subjects e.g. a student recommended for exemption from CT3 will be eligible for exemption from both the A and B papers of subject CS1. It is not possible to be recommended for exemption from either the A or B papers individually. Deadlines apply to converting Core Technical exemptions to the corresponding Core Principles exemptions – details can be found on the IFoA website.

9. Approved List of Calculators

Students may use electronic calculators in all the module examinations subject to certain conditions prescribed by the university. Only the calculators approved by the state examinations or the calculators in the following models can be used:

- Casio FX-82
- Casio FX-83
- Casio FX-85
- Hewlett Packard HP12c
- Sharp EL531
- Texas Instruments BA-35
- Texas Instruments BA II Plus
- Texas Instruments TI-30X

The above models with any suffix (numbers or letters that follow the calculator's make and model) are also approved.

10. Mapping of DCU Modules in 2023/24 to IFoA Examinations

The values of brackets show the weighting of the DCU modules for the exemption marks of the CT/CP subject under ERA.

2023/2024 Mapping of DCU Modules to IFoA Subjects	
IFoA Subjects	DCU Actuarial Modules
CB1 Business Finance	AC316 (50%), EF316 (50%)
CB2 Business Economics	EF116 (50%), EF117 (50%)
CS1 Actuarial Statistics	MS117 (10%), MS226 (40%), MS228 (50%)
CS2 Risk Modelling and Survival Analysis	MS308 (10%), MS338 (30%), MS349 (30%), MS447 (20%), MS455 (10%)
CM1 Actuarial Mathematics	MS318 (50%), MS424 (50%)
CM2 Financial Engineering and Loss Reserving	MS427 (50%), MS430 (50%)

11. Mapping of DCU Modules in past years to IFoA Examinations

*Note that for modules marked with a * students must pass both the continuous assessment and end of semester exam components of the module separately.*

The values of brackets show the weighting of the DCU modules for the exemption marks of the CT/CP subject under ERA.

2018/2019 Mapping of DCU Modules to IFoA Subjects	
IFoA CT Subjects	DCU Actuarial Modules
CT1: Financial Mathematics	MS318
CT2: Finance & Financial Reporting	AC316 (50%), EF316 (50%)
CT3: Probability & Mathematical Statistics	MS117 (20%), MS255 (40%), MS258 (40%)
CT4: Models	MS308 (50%), MS338 (50%)
CT5: Contingencies	MS448
CT6: Statistical Methods	MS447 (50%), MS449 (50%)
CT7: Economics	EF113 (50%), EF114 (50%)
CT8: Financial Economics	MS427 (50%), MS428 (50%)

2019/2020 Mapping of DCU Modules to IFoA Subjects		
IFoA Curriculum	IFoA Subjects	DCU Actuarial Modules
Core Principles Subjects	CB2 Business Economics	EF113 (50%), EF114 (50%)
	CS1 Actuarial Statistics	MS117* (10%)
Core Technical Subjects	CT1: Financial Mathematics	MS318
	CT2: Finance & Financial Reporting	AC316 (50%), EF316 (50%)
	CT3: Probability & Mathematical Statistics	MS117 (20%), MS255 (40%), MS258 (40%)
	CT4: Models	MS308 (50%), MS338 (50%)
	CT5: Contingencies	MS448
	CT6: Statistical Methods	MS447 (50%), MS449 (50%)
	CT8: Financial Economics	MS427 (50%), MS428 (50%)

Note that further DCU modules will map to CS1 in Year 2 (2020/2021) to complete the exemption for CS1.

2020/2021 Mapping of DCU Modules to IFoA Subjects		
IFoA Curriculum	IFoA Subjects	DCU Actuarial Modules
Core Principles Subjects	CB1 Business Finance	AC316 (50%), EF316 (50%)
	CB2 Business Economics	EF113 (50%), EF114 (50%)
	CS1 Actuarial Statistics	MS117* (10%), MS226* (40%), MS228* (50%)
Core Technical Subjects	CT1: Financial Mathematics	MS318
	CT2: Finance & Financial Reporting	AC316 (50%), EF316 (50%)
	CT4: Models	MS308 (50%), MS338 (50%)
	CT5: Contingencies	MS448
	CT6: Statistical Methods	MS447 (50%), MS449 (50%)
	CT8: Financial Economics	MS427 (50%), MS428 (50%)

Note that further DCU modules will map to CB1 in Year 3 (2021/2022) to complete the exemption for CB1.

2021/2022 Mapping of DCU Modules to IFoA Subjects		
IFoA Curriculum	IFoA Subjects	DCU Actuarial Modules
Core Principles Subjects	CB1 Business Finance	AC316 (50%), EF316 (50%)
	CB2 Business Economics	EF113 (50%), EF114 (50%)
	CS1 Actuarial Statistics	MS117* (10%), MS226* (40%), MS228* (50%)
	CS2 Risk Modelling and Survival Analysis	MS308 (10%), MS338* (30%), MS349* (30%)
	CM1 Actuarial Mathematics	MS318* (50%)
Core Technical Subjects	CT5: Contingencies	MS448
	CT6: Statistical Methods	MS447 (50%), MS449 (50%)
	CT8: Financial Economics	MS427 (50%), MS428 (50%)

Note that further DCU modules will map to CS2 and CM1 in Year 4 (2022/2023) to complete the exemption for CS2 and CM1.

2022/2023 Mapping of DCU Modules to IFoA Subjects	
IFoA Subjects	DCU Actuarial Modules
CB1 Business Finance	AC316 (50%), EF316 (50%)
CB2 Business Economics	EF116 (50%), EF117 (50%)
CS1 Actuarial Statistics	MS117* (10%), MS226* (40%), MS228* (50%)
CS2 Risk Modelling and Survival Analysis	MS308 (10%), MS338* (30%), MS349* (30%), MS447* (20%), MS455* (10%)
CM1 Actuarial Mathematics	MS318* (50%), MS424* (50%)
CM2 Financial Engineering and Loss Reserving	MS427* (50%), MS430* (50%)