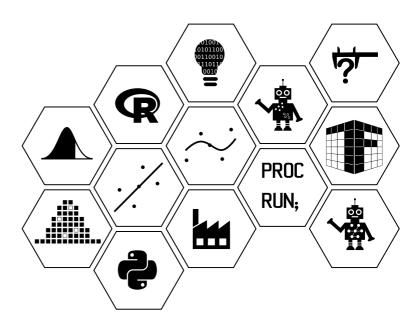
MSc in Data Analytics \ MSc in Data Analytics for Government\ (Online Distance Learning)

Programme Handbook: MSc in Data Analytics MSc in Data Analytics for Government





Please note that the information provided in this handbook is subject to change. An updated handbook will be available at the beginning of each academic year.

General Information

You can find an accessible HTML version of this handbook using the following link

https://bold-web.maths.gla.ac.uk/cpd/assets/html/handbook.html

Key Contacts

The programme management team can be contacted through

maths-stats-analyticsmsc-management@glasgow.ac.uk.

The School's postgraduate teaching administration can be contacted through

maths-stats-teaching@glasgow.ac.uk

We aim to respond to all queries within 5 working days. If you have specific questions regarding registration, enrollment, sponsorship, finance, graduation or withdrawal then you can find a full list of contact information for these services further on in this handbook.

Pre-sessional Mathematics

Throughout the programme, you will be required to use some mathematical techniques which involve functions, differentiation, integration and matrix algebra. We have created a short mathematics course which consists of six units covering the key mathematical skills you will cover on the programme.

You can access these materials at the following link

https://www.gla.ac.uk/schools/mathematicsstatistics/postgraduate/onlineprogrammes/analytics/psessionalmaths/

Term Dates

The structure for the online programme is comprised of three terms ("semesters"). A mid-term week break will take place roughly halfway through each semester.

This programme follows the University's **session dates**. The following table shows the dates for each semester, mid-term week and reassessment periods.

Semester	Start	Start of Mid-term Week	End	Reassessment
1	23/09/2024	28/10/2024	13/12/2024	August 2025
2	13/01/2025	17/02/2025	28/03/2025	August 2025
3	28/04/2025	02/06/2025	11/07/2025	September/Octo

Coursework will be made available and deadlines set on each item of assessment. You can find assessment calendars for each course on the dedicated course Moodle page.

In some cases, assessment deadlines may be later than the end of the corresponding semester. For example, for a course taken in semester 3, you could have an assessment due on 29/07/2024. It is recommended that you check assessment calendars, given on individual course Moodle pages, at the beginning of each semester to ensure you prepare to complete all assessments.

For each course, reassessment of all components (i.e. quizzes, reports, class test) will be made available to students obtaining an overall grade lower than C3 for that course. The specific dates for each reassessment will be confirmed closer to the time. More detailed information about reassessment is provided in the section on assessment.

Please note that the information provided in this handbook is subject to change. An updated handbook will be available at the beginning of each academic year.

Teaching Team

Course	Teaching staff
Preliminary Mathematics for Statisticians	Shazia Ahmed (shazia.ahmed@glasgow.ac.uk)
Probability and Stochastic Models	Alexey Lindo (alexey.lindo@glasgow.ac.uk)
Probability and Sampling Fundamentals/Sampling Fundamentals	Philipp Otto (philipp.otto@glasgow.ac.uk)
R Programming/Statistical Computing	Craig Alexander (craig.alexander.2@glasgow.ac.uk)
Data Programming in Python	Andrew Elliott (andrew.elliott@glasgow.ac.uk) & Jennifer Gaskell (jennifer.gaskell@glasgow.ac.uk)
Learning from Data/Data Science Foundations	Claire Miller (claire.miller@glasgow.ac.uk)
Predictive Modelling	Surajit Ray (surajit.ray@glasgow.ac.uk)
Data Management and Analytics using SAS	Benn Macdonald (benn.macdonald@glasgow.ac.uk)
Advanced Predictive Models	Tereza Neocleous (tereza.neocleous@glasgow.ac.uk) & TBC
Data Mining and Machine Learning I and Unsupervised Learning	Nema Dean (nema.dean@glasgow.ac.uk) & Lawrence Bull (Lawrence.Bull@glasgow.ac.uk)
Data Mining and Machine Learning II and Unstructured Data	Jafet Belmont Osuna (jafet.BelmontOsuna@glasgow.ac.uk)
Large-Scale Computing for Data Analytics	Jennifer Gaskell (jennifer.gaskell@glasgow.ac.uk) & TBC

Course	Teaching staff
Uncertainty Assessment and Bayesian Computation	Vlad Vyshemirsky (vladislav.vyshemirsky@glasgow.ac.uk)
Data Analytics in Business and Industry	Colette Mair (colette.mair@glasgow.ac.uk)
Data Analytics Project/Data Analytics Professional Portfolio	Project team Surajit Ray (surajit.ray@glasgow.ac.uk), Jafet Belmont Osuna (jafet.BelmontOsuna@glasgow.ac.uk).
	Project supervisors TBC

Programme Structure

PGCert, PGDip and MSc

You have the option of completing a Postgraduate Certificate (PGCert), Postgraduate Diploma (PGDip) or Masters (MSc) in Data Analytics (or Data Analytics for Government). The full MSc programme comprises of 180 credits, the PGDip comprises of 120 credits and the PGCert comprises of 60 credits. The structures of each are outlined below.

- MSc includes 12 taught courses (120 credits) and a project (60 credits).
- PGDip includes 12 taught courses.
- PGCert includes 6 taught courses.

Duration

There are two routes for completing the MSc in Data Analytics programme and three routes for completing the MSc in Data Analytics for Government programme. The default and recommended route takes three years whereas a faster route allows completing the MSc programme in two years. The additional route for the MSc in Data Analytics for Government allows students to complete the MSc programme in four years.

Please note that students following the faster route take 100 credits in their first year, which is close to the 120 credits taken each year by full-time students. If you wish to take the faster route, then please consider the implications carefully. We highly recommend you discuss this option with your Adviser of Studies. If you would like to take the faster route you must complete the faster route academic workload form and email it to the **management team** before the end of week 1 of semester 1. This form can be found on the General Information Moodle Page.

It is not possible to switch from the recommended three year route to the faster two year route after semester 1 of year 1. However, you can switch from the faster two year route to the recommended three year route. In the latter case, you must let the management team know by completing the non-standard academic workload form and email it to the management team.

Students on the MSc in Data Analytics for Government programme who wish to take the four year route must complete the non-standard academic workload form and email it to the **management team**.

Please note that we currently teach each course only once a year (in the semesters given in the tables below), so you need to take the courses in the semester in which they are offered.

Credit Points

The University of Glasgow use credit points to quantify the outcomes of learning. The allocation of credits is based on the amount of time that an average learner at a specified level might expect to take to achieve the outcomes. In common with other credit systems, one credit represents the outcomes of learning achieved through a notional 10 hours of learning time.

In total, this programme comprises 180 credits. Each taught course accounts for 10 credits and the project accounts for 60 credits. For a 10 credit course the average learner may expect to achieve the intended learning outcomes through a notional 100 hours of learning time.

MSc in Data Analytics

The MSc in Data Analytics consists of 12 taught courses each worth 10 credits, made up of the following courses:

Course	Code	Credits	Semester
Probability and Stochastic Models*	STATS5077	10	1 (Autumn)
Probability and Sampling Fundamentals*	STATS5094	10	1 (Autumn)
R Programming	STATS5078	10	1 (Autumn)
Data Programming in Python	STATS5082	10	1 (Autumn)
Uncertainty Assessment and Bayesian Computation	STATS5084	10	1 (Autumn)

Course	Code	Credits	Semester
Learning from Data	STATS5075	10	2 (Winter)
Predictive Modelling	STATS5076	10	2 (Winter)
Data Analytics in Business and Industry	STATS5079	10	2 (Winter)
Data Management and Analytics using SAS	STATS5080	10	2 (Winter)
Advanced Predictive Models	STATS5073	10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074	10	3 (Summer)
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)
Large-Scale Computing for Data Analytics	STATS5083	10	3 (Summer)

In addition you must also complete the project, a 60 credit independent piece of work, you can select between either a Data Analytics Project or Data Analytics Professional Portfolio as follows:

Course	Code	Credits	Semester
Data Analytics Project	STATS5093P	60	All year
Data Analytics Professional Portfolio	STATS5092P	60	All year

Students are strongly encouraged to propose their own project. We believe that this is the best way of ensuring that projects correspond to each student's strengths and interests. Please note that the management team will not provide feedback or guidance on project proposals.

Students taking the project in September 2024 will be contacted by the project team around August 2024. Students will be invited to book an appointment with the team to discuss their

proposal and data. If you have not been contacted by the project team by the beginning of August 2024 then please contact the project team (please see page 3).

Please note that the project must be completed within one academic year. Any late submissions or reassessments are subject to additional fees. Any extensions, with or without a Good Cause Claim, that result in the project being submitted in a different academic year are also subject to additional fees. You can find more information about Good Cause Claims later in this handbook.

In the next section we will detail the standard course schedules you can take as part of this programme:

Recommended Route (3 years)

Year 1

Course	Code	Credits	Semester
Probability and Stochastic Models*	STATS5077	10	1 (Autumn)
Probability and Sampling Fundamentals*	STATS5094	10	1 (Autumn)
R Programming	STATS5078	10	1 (Autumn)
Learning from Data	STATS5075	10	2 (Winter)
Predictive Modelling	STATS5076	10	2 (Winter)
Advanced Predictive Models	STATS5073	10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074	10	3 (Summer)

We offer two different probability courses during the first semester.

The **Probability and Stochastic Models** course provides a structured development of probability theory and its use to construct stochastic models. The pace of the course is brisk, as it begins from the assumption that students have little prior exposure to probability yet reaches advanced concepts by the end. On the other hand, the **Probability and Sampling Fundamentals** course aims to introduce students to probability theory with a focus on understanding and being able to apply

concepts, rather than deriving these concepts in a mathematically rigorous manner. The latter course also covers some basic aspects of Sampling Theory.

You can get more information about the course aims and intended learning outcomes in the course catalogue (follow the links in the tables above and below). Generally, we would recommend students who have not studied probability at a higher education level to enroll for **Probability and Sampling Fundamentals**. We also encourage you to discuss this with your Adviser of Studies in case you are not certain which of the two courses you would like to participate on.

Year 2

Course	Code	Credits	Semester
Data Programming in Python	STATS5082	10	1 (Autumn)
Uncertainty Assessment and Bayesian Computation	STATS5084	10	1 (Autumn)
Data Analytics in Business and Industry	STATS5079	10	2 (Winter)
Data Management and Analytics using SAS	STATS5080	10	2 (Winter)
Large-Scale Computing for Data Analytics	STATS5083	10	3 (Summer)
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)

Year 3 (Dissertation)

In the third year you will work on a dissertation worth 60 credits.

Course	Code	Credits	Semester
Data Analytics Project	STATS5093P	60	All year
Data Analytics Professional Portfolio	STATS5092P	60	All year

Faster Route (2 years)

Students have the option to complete the MSc in two years, if they want to. In that case the first year will be comprised of 10 courses (3 at semester 1, 3 at semester 2, and 3 during the summer semester) while the second year will be comprised of two courses and the final project.

Some of the courses on the faster route may touch upon topics not yet covered in detail. Enough detail will always be provided within the material but faster route students may need to be prepared to do additional reading at times.

Year 1

Course	Code	Credits	Semester
Probability and Stochastic Models*	STATS5077	10	1 (Autumn)
Probability and Sampling Fundamentals*	STATS5094	10	1 (Autumn)
R Programming	STATS5078	10	1 (Autumn)
Data Programming in Python	STATS5082	10	1 (Autumn)
Learning from Data	STATS5075	10	2 (Winter)
Predictive Modelling	STATS5076	10	2 (Winter)
Data Management and Analytics using SAS	STATS5080	10	2 (Winter)
Advanced Predictive Models	STATS5073	10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074	10	3 (Summer)
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)

Course	Code	Credits	Semester
Large-Scale Computing for Data Analytics	STATS5083	10	3 (Summer)

Students need to choose between Probability and Stochastic Models and Probability and Sampling Fundamentals (see above for detailed information).

Year 2

Course	Code	Credits	Semester
Uncertainty Assessment and Bayesian Computation	STATS5084	10	1 (Autumn)
Data Analytics in Business and Industry	STATS5079	10	2 (Winter)
Data Analytics Project	STATS5093P	60	All year
Data Analytics Professional Portfolio	STATS5092P	60	All year

Note that both routes are governed by the same programme specifications and there is only one way to apply for the MSc and that is through the default path (3 years).

The way that students decide to go with the faster route (of 2 years) is by completing the non-standard academic work-load forum before the beginning of the programme and being enrolled in the correct courses each semester.

You will be able to discuss which route you want to follow with your Adviser of Studies at the beginning of the first semester of Year 1.

PGDip in Data Analytics

The PGDip programme includes all of the 12 taught courses detailed above.

PGCert in Data Analytics

The PGCert in Data Analytics includes the following four compulsory courses.

Course	Code	Credits	Semester
Probability and Stochastic Models*	STATS5077	10	1 (Autumn)
Probability and Sampling Fundamentals*	STATS5094	10	1 (Autumn)
R Programming	STATS5078	10	1 (Autumn)
Learning from Data	STATS5075	10	2 (Winter)
Predictive Modelling	STATS5076	10	2 (Winter)

^{*}Students choose either Probability and Stochastic Models or Probability and Sampling Fundamentals.

Two courses from the following three options must also be chosen.

Course	Code	Credits	Semester
Advanced Predictive Models	STATS5073	10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074	10	3 (Summer)
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)

MSc in Data Analytics for Government

The MSc in Data Analytics for Government and related PGDip and PGCert is similar to the MSc in Data Analytics but does have a few different courses including some optional modules.

There are 10 compulsory courses namely:

Course	Code	Credits	Semester

Course	Code	Credits	Semester
Sampling Fundamentals	STATS5096	10	1 (Autumn)
Statistical Computing	STATS5097	10	1 (Autumn)
Data Programming in Python	STATS5082	10	1 (Autumn)
Data Science Foundations	STATS5095	10	2 (Winter)
Predictive Modelling	STATS5076	10	2 (Winter)
Advanced Predictive Models	STATS5073	10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074	10	3 (Summer)
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)
Large-Scale Computing for Data Analytics	STATS5083	10	3 (Summer)
Uncertainty Assessment and Bayesian Computation	STATS5084	10	1 (Autumn)

In addition to these courses you should take 20 credits of additional optional modules from the list below:

Course	Code	Credits	Semester	Timeline
Introduction to Epidemiology and Statistics	MED5653	20	2	13th Jan- 28th Mar

Course	Code	Credits	Semester	Timeline
Qualitative Research Methods for Public Health	MED5436	20	2	13th Jan- 28th Mar
Data Analytics in Business and Industry	STATS5079	10	2	13th Jan- 28th Mar
Data Management and Analytics using SAS	STATS5080	10	2	13th Jan- 28th Mar
Choice Experiments for Health Economics	MED5641	10	2	13th Jan-14th Feb
Survival Analysis for Health Technology Assessment	MED5380	10	2	24th Feb- 28th Mar

If you have previously taken any of the following courses which were previously compulsory on this programme they will count towards your optional 20 credits.

Course	Code	Credits	Semester
Introduction to Survey Research	POLITIC5094	10	2 (Winter)
Statistics in Government	SPS5048	10	2 (Winter)

Thus, as an example if you have previously taken, *Introduction to Survey Research* which is worth 10 credits, then you will only have to take 10 additional credits from the above list to obtain the MSc.

Please note some of the modules are worth more than the standard 10 credits offered for other ODL modules. This may mean that you may take less modules. If you do decide to take a 20 credit module then you will take one less course on this semester when compared to others. Please also be aware of the terms and timelines for some of these courses which do not necessarily match with the standard timelines. You should sign up to these courses in the usual way. For some courses (notably the courses with code starting in MED), you will only be able to sign up from end of semester 1, although if you want to take these courses then please contact the management team.

Please note that the optional modules may change between years, thus if there are optional modules you particularly want to take please prioritise taking them in this sitting.

In addition you must also complete the project, a 60 credit independent piece of work, you can select between either a Data Analytics Project or Data Analytics Professional Portfolio as follows:

Course	Code	Credits	Semester
Data Analytics Project	STATS5093P	60	All year
Data Analytics Professional Portfolio	STATS5092P	60	All year

Students are strongly encouraged to propose their own project. We believe that this is the best way of ensuring that projects correspond to each student's strengths and interests. Please note that the management team will not provide feedback or guidance on project proposals.

Students taking the project in September 2024 will be contacted by the project team around August 2024. Students will be invited to book an appointment with the team to discuss their proposal and data. If you have not been contacted by the project team by the beginning of August 2024 then please contact the project team (please see page 3).

Please note that the project must be completed within one academic year. Any late submissions or reassessments are subject to additional fees. Any extensions, with or without a Good Cause Claim, that result in the project being submitted in a different academic year are also subject to additional fees. You can find more information about Good Cause Claims later in this handbook.

In the next section we will detail the standard routes you can take as part of this programme:

Recommended Route (3 years)

Year 1

Course	Code	Course Equivalent	Credits	Semester

Course	Code	Course Equivalent	Credits	Semester
Sampling Fundamentals	STATS5096	Probability and Sampling Fundamentals	10	1 (Autumn)
Statistical Computing	STATS5097	R Programming	10	1 (Autumn)
Data Science Foundations	STATS5095	Learning from Data	10	2 (Winter)
Predictive Modelling	STATS5076		10	2 (Winter)
Advanced Predictive Models	STATS5073		10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074		10	3 (Summer)

Year 2

Course	Code	Credits	Semester
Data Programming in Python	STATS5082	10	1 (Autumn)
Uncertainty Assessment and Bayesian Computation	STATS5084	10	1 (Autumn)
Large-Scale Computing for Data Analytics	STATS5083	10	3 (Summer)

Course	Code	Credits	Semester
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)

In addition to these courses you should take 20 credits of additional optional modules. Please note some of the modules are worth more than the standard 10 credits for an ODL module you may end up taking fewer modules.

Please also be aware of the terms and timelines for some of these courses which do not necessarily match with the standard timelines.

The optional courses are listed below:

Course	Code	Credits	Semester	Timeline
Introduction to Epidemiology and Statistics	MED5653	20	2	13th Jan- 28th Mar
Qualitative Research Methods for Public Health	MED5436	20	2	13th Jan- 28th Mar
Data Analytics in Business and Industry	STATS5079	10	2	13th Jan- 28th Mar
Data Management and Analytics using SAS	STATS5080	10	2	13th Jan- 28th Mar
Choice Experiments for Health Economics	MED5641	10	2	13th Jan-14th Feb

Course	Code	Credits	Semester	Timeline
Survival Analysis for Health Technology Assessment	MED5380	10	2	24th Feb- 28th Mar

You should sign up to these courses in the usual way. For some courses (notably the courses with code starting in MED), you will only be able to signup from end of semester 1, although if you want to take these courses please contact the management team.

Note, a previous version of this table had the following two courses which are no longer running.

Course	Code	Credits	Semester
Introduction to Survey Research	POLITIC5094	10	2 (Winter)
Statistics in Government	SPS5048	10	2 (Winter)

Year 3 (Dissertation)

In the third year you will work on a dissertation worth 60 credits, which can either be a project (STATS5093P) or a reflective portfolio (STATS5092P).

Course	Code	Credits	Semester
Data Analytics Project	STATS5093P	60	All year
Data Analytics Professional Portfolio	STATS5092P	60	All year

Faster Route (2 years)

Students have the option to complete the MSc in two years, if they want to. In that case the first year will be comprised of 10 courses (3 at semester 1, 3 at semester 2, and 4 during the summer semester) while the second year will be comprised of 2 courses and the final project.

Year 1

Course	Code	Credits	Semester
Sampling Fundamentals	STATS5096	10	1 (Autumn)
Statistical Computing	STATS5097	10	1 (Autumn)
Data Programming in Python	STATS5082	10	1 (Autumn)
Data Science Foundations	STATS5095	10	2 (Winter)
Predictive Modelling	STATS5076	10	2 (Winter)
Advanced Predictive Models	STATS5073	10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074	10	3 (Summer)
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)
Large-Scale Computing for Data Analytics	STATS5083	10	3 (Summer)

In addition to these courses you should take 10 credits of additional optional modules. Please note some of the modules are worth more than the standard 10 credits for an ODL module you may end up taking fewer modules. If you do decide to take a 20 credit module then you then there will be one fewer course to be taken in the following year.

Please also be aware of the terms and timelines for some of these courses which do not necessarily match with the standard timelines.

The optional courses are listed below:

Course	Code	Credits	Semester	Timeline
Introduction to Epidemiology and Statistics	MED5653	20	2	13th Jan- 28th Mar

Course	Code	Credits	Semester	Timeline
Qualitative Research Methods for Public Health	MED5436	20	2	13th Jan- 28th Mar
Data Analytics in Business and Industry	STATS5079	10	2	13th Jan- 28th Mar
Data Management and Analytics using SAS	STATS5080	10	2	13th Jan- 28th Mar
Choice Experiments for Health Economics	MED5641	10	2	13th Jan-14th Feb
Survival Analysis for Health Technology Assessment	MED5380	10	2	24th Feb- 28th Mar

You should sign up to these courses in the usual way. For some courses (notably the courses with code starting in MED), you will only be able to signup from end of semester 1, although if you want to take these courses please contact the management team.

Note, a previous version of this table had the following course which are no longer running.

Course	Code	Credits	Semester
Statistics in Government	SPS5048	10	2 (Winter)

Year 2

Course	Code	Credits	Semester
Uncertainty Assessment and Bayesian Computation	STATS5084	10	1 (Autumn)
Data Analytics Project	STATS5093P	60	All year
Data Analytics Professional Portfolio	STATS5092P	60	All year

In addition to these courses you should take 10 credits of additional optional modules if you have not taken a 20 credit optional course in Year 1. You may also decide to take all 20 credits of optional modules in your second year.

Please also be aware of the terms and timelines for some of these courses which do not necessarily match with the standard timelines.

The optional courses are listed below:

Course	Code	Credits	Semester	Timeline
Introduction to Epidemiology and Statistics	MED5653	20	2	13th Jan- 28th Mar
Qualitative Research Methods for Public Health	MED5436	20	2	13th Jan- 28th Mar
Data Analytics in Business and Industry	STATS5079	10	2	13th Jan- 28th Mar
Data Management and Analytics using SAS	STATS5080	10	2	13th Jan- 28th Mar
Choice Experiments for Health Economics	MED5641	10	2	13th Jan-14th Feb

Course	Code	Credits	Semester	Timeline
Survival Analysis for Health Technology Assessment	MED5380	10	2	24th Feb- 28th Mar

You should sign up to these courses in the usual way. For some courses (notably the courses with code starting in MED), you will only be able to signup from end of semester 1, although if you want to take these courses please contact the management team.

Note, a previous version of this table had the following course which is no longer running.

Course	Code	Credits	Semester
Introduction to Survey Research	POLITIC5094	10	2 (Winter)

Four Year Route

Students have the option to complete the MSc in four years, if they want to. In that case the first year will be comprised of 4 courses (2 at semester 1 and 2 at semester 2), the second year will be comprised of 4 courses (1 at semester 1, 1 at semester 2, and 2 during semester 3), the third year will be comprised of 4 courses (1 at semester 1, 1 at semester 2, and 2 during semester 3). The fourth year will be comprised of the final project.

Year 1

Course	Code	Credits	Semester
Sampling Fundamentals	STATS5096	10	1 (Autumn)
Statistical Computing	STATS5097	10	1 (Autumn)
Data Science Foundations	STATS5095	10	2 (Winter)
Predictive Modelling	STATS5076	10	2 (Winter)

Year 2

Course	Code	Credits	Semester
Data Programming in Python	STATS5082	10	1 (Autumn)
Advanced Predictive Models	STATS5073	10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074	10	3 (Summer)

In addition to these courses you should take 10 credits of additional optional modules. Please note some of the modules are worth more than the standard 10 credits for an ODL module you may end up taking fewer modules. If you do decide to take a 20 credit module then you then there will be one fewer course to be taken in the following year.

Please also be aware of the terms and timelines for some of these courses which do not necessarily match with the standard timelines.

The optional courses are listed below:

Course	Code	Credits	Semester	Timeline
Introduction to Epidemiology and Statistics	MED5653	20	2	13th Jan- 28th Mar
Qualitative Research Methods for Public Health	MED5436	20	2	13th Jan- 28th Mar
Data Analytics in Business and Industry	STATS5079	10	2	13th Jan- 28th Mar
Data Management and Analytics using SAS	STATS5080	10	2	13th Jan- 28th Mar

Course	Code	Credits	Semester	Timeline
Choice Experiments for Health Economics	MED5641	10	2	13th Jan-14th Feb
Survival Analysis for Health Technology Assessment	MED5380	10	2	24th Feb- 28th Mar

You should sign up to these courses in the usual way. For some courses (notably the courses with code starting in MED), you will only be able to signup from end of semester 1, although if you want to take these courses please contact the management team.

Note, a previous version of this table had the following course which are no longer running.

Course	Code	Credits	Semester
Statistics in Government	SPS5048	10	2 (Winter)

Year 3

Course	Code	Credits	Semester
Uncertainty Assessment and Bayesian Computation	STATS5084	10	1 (Autumn)
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)
Large-Scale Computing for Data Analytics	STATS5083	10	3 (Summer)

In addition to these courses you should take 10 credits of additional optional modules if you have not taken a 20 credit optional course in Year 2. You may also decide to take all 20 credits of optional modules in your third year.

Please also be aware of the terms and timelines for some of these courses which do not necessarily match with the standard timelines.

The optional courses are listed below:

Course	Code	Credits	Semester	Timeline
Introduction to Epidemiology and Statistics	MED5653	20	2	13th Jan- 28th Mar
Qualitative Research Methods for Public Health	MED5436	20	2	13th Jan- 28th Mar
Data Analytics in Business and Industry	STATS5079	10	2	13th Jan- 28th Mar
Data Management and Analytics using SAS	STATS5080	10	2	13th Jan- 28th Mar
Choice Experiments for Health Economics	MED5641	10	2	13th Jan-14th Feb
Survival Analysis for Health Technology Assessment	MED5380	10	2	24th Feb- 28th Mar

You should sign up to these courses in the usual way. For some courses (notably the courses with code starting in MED), you will only be able to signup from end of semester 1, although if you want to take these courses please contact the management team.

Note, a previous version of this table had the following course which is no longer running.

Course	Code	Credits	Semester

Course	Code	Credits	Semester
Introduction to Survey Research	POLITIC5094	10	2 (Winter)

Year 4 (Dissertation)

Course	Code	Credits	Semester
Data Analytics Project	STATS5093P	60	All year
Data Analytics Professional Portfolio	STATS5092P	60	All year

Note that all routes are governed by the same programme specifications and there is only one way to apply for the MSc and that is through the default path (3 years). The way that students decide to go with the faster route (of 2 years) or 4 year route is by being enrolled in more, or less (compared to the default number) courses per semester.

You will be able to discuss which route you want to follow with your Adviser of Studies at the beginning of the first semester of Year 1. Please note that it is generally not possible to change to the faster route at a later date.

PGDip in Data Analytics for Government

The PGDip programme includes all the 10 compulsory taught courses described in the MSc in Data Analytics for Government programme and 20 credits of optional modules from the following list.

Course	Code	Credits	Semester	Timeline
Introduction to Epidemiology and Statistics	MED5653	20	2	13th Jan- 28th Mar
Qualitative Research Methods for Public Health	MED5436	20	2	13th Jan- 28th Mar
Data Analytics in Business and Industry	STATS5079	10	2	13th Jan- 28th Mar

Course	Code	Credits	Semester	Timeline
Data Management and Analytics using SAS	STATS5080	10	2	13th Jan- 28th Mar
Choice Experiments for Health Economics	MED5641	10	2	13th Jan-14th Feb
Survival Analysis for Health Technology Assessment	MED5380	10	2	24th Feb- 28th Mar

PGCert in Data Analytics for Government

The PGCert in Data Analytics includes the following four compulsory courses.

Course	Code	Credits	Semester
Sampling Fundamentals	STATS5096	10	1 (Autumn)
Statistical Computing	STATS5097	10	1 (Autumn)
Data Science Foundations	STATS5095	10	2 (Winter)
Predictive Modelling	STATS5076	10	2 (Winter)

Two courses from the following options must also be chosen.

Course	Code	Credits	Semester
Advanced Predictive Models	STATS5073	10	3 (Summer)
Data Mining and Machine Learning I: Supervised and Unsupervised Learning	STATS5074	10	3 (Summer)

Course	Code	Credits	Semester
Data Mining and Machine Learning II: Big and Unstructured Data	STATS5081	10	3 (Summer)

Continuing Professional Development (CPD) Courses

Learners can take **individual courses** from the MSc/PGCert/PGDip in Data Analytics programme as CPD.

You can find more information on each course by selecting the links on each course name in the title. These course descriptions list prerequisite knowledge which you will need to have in order to fully engage and benefit from the course. It is your responsibility to ensure you have this knowledge.

You may opt to take the course for credit or not-for-credit. If you take the course for credit, you will take the assignments in the course and you will be assigned a grade at the end of the course based on your performance in the course assessments. If you take the not-for-credit route, you will not be awarded a grade but will receive a certificate to acknowledge your participation in the course. In the latter case, no summative assessment can be taken.

If you start the course for credit but wish to change to the not-for-credit route, you must inform the management team **prior to the first assignment for the course**.

Prior learning with CPD

Credits achieved through CPD can be recognised as prior learning and can lead to the award of credit that counts toward both MSc/PGDip/PGCert programmes requirements.

In general, a maximum of 30 credits of the PGCert programme, 60 credits of the PGDip programme and 60 taught credits of the MSc programme can be banked through CPD learning. In order for CPD learning to be eligible, students need to have completed all assessments for that course. If a student took a CPD course as a non-student learner then they must complete all assessments for that course (subject to an additional fee).

Successfully completing any CPD course does not guarantee entry to a MSc/PGDip/PGCert programme. Applicants to a programme need to meet all the listed entry requirements. We do not recognise any alternative prior learning for the MSc/PGDip/PGCert programmes.

Enrolling for Courses on MyCampus

Students need to enroll for the courses they wish to take each semester on MyCampus. When enrolling it is important to follow one of the routes given above. It is the student's responsibility to

make sure they are enrolled for the correct courses each semester.

Please note that for each new academic year, students have to complete academic and financial registration before being able to enroll.

Please note that the fees for the programme are on a per-credit basis and that fees are determined by your enrollments. In other words, you will be charged for a course once you enrol for this course of MyCampus.

The University Regulations allow you to attempt each course only once, unless there is Good Cause (see below). Students who are enrolled for a course when the first assessment for this course is due need to complete the course in that semester. There will be no opportunity to repeat a course.

You can raise a support call to get help with enrollment (registration: help & support).

If you need to un-enroll from a course then please contact the management team and the teaching administration team as soon as possible. Please note that un-enrolling does not always cancel the fees the University charges for this course.

You can find detailed instructions on enrolment at the University's enrolment guide.

Timetable

Most material for our online courses is asynchronous ("pre-recorded"), i.e. you can work on them at any time. There will be some synchronous ("live") teaching events, typically weekly or fortnightly for each course. The timings for live sessions differ for each course. We will try to accommodate individual circumstances whenever this is possible, but we are constrained by the availability of staff and that of other students on the programme. We strongly encourage you attend the synchronous sessions when possible, but this is not a formal requirement for the award of credit. The timings and links to live sessions for each course will be provided on Moodle.

You will also likely see a timetable on your Mycampus profile that may point to certain lecture times for your courses. Please ignore this and refer only to the course Moodle pages.

Taking Courses in a Different Order (and/or Taking Fewer Courses per Semester)

We generally do not allow students to deviate from the above routes, except in exceptional circumstances, such as on medical grounds or due to family emergencies. We recommend you discuss your options with your Adviser of Studies.

Virtual Learning Environment

Moodle

The University uses Moodle as its virtual learning environment (VLE), which is used as a gateway for accessing the learning material for this programme. The University's Moodle system can be accessed through MyGlasgow or directly at the following link.

Weblink 1

Moodle

Provided you have enrolled for the courses on MyCampus you should be automatically enrolled into these courses on Moodle and able to access teaching material after the start date of the course. This should happen close to the start date of each term.

Academic Writing Skills Programme

The University takes students from a wide variety of backgrounds and with different levels of exposure to academic and scientific writing. The University has thus introduced an Academic Writing Skills Programme (AWSP) to make sure that all students can write well and get the best results from their written work.

Like all other students starting a new degree you will be automatically enrolled for the AWSP in your first year of studies.

The AWSP consists of an online test comprising multiple choice questions and a short timed essay. Depending on the outcome of the test you might be invited to complete further courses.

Please note that the Academic Writing Skills Programme is run centrally by the **University's Student Learning Development Service (SLD)**. You will receive an email with detailed information about the AWSP programme in the near future. If you have any questions, please get in touch with the SLD team.

If you do not complete the AWSP it will show on your Higher Education Achievement Report ("transcript") as "not completed". However, completing the AWSP is *not* a requirement for progression or a requirement for the award of the MSc degree, nor does it impact on your degree classification.

Weblink 2

Academic Writing Skills Programme (AWSP)

Student information about the Academic Writing Skills Programme (AWSP)

Assessment

University Regulations

The University's Code of Assessment regulates how students' performance is assessed and how assessment results aggregated. This section gives on overview of the key regulations applying to this MSc programme.

Weblink 3

Guide of the Code of Assessment

The Guide to the Code of Assessment explains the regulations in the Code of the Assessment and illustrates the regulations with examples (for example of how grades are calculated). This also links to the Code of Assessment

Assessment Structure

All courses on this programme are assessed continuously throughout the term. Each course will have an Assessment and Feedback Calendar giving the dates when coursework is given out, when it is due and a target date by when feedback will be returned. It will also contain the percentage weights of each assessment which are used for calculating the overall grade for each course. You can find individual course assessment calenders for each course at the beginning of the relevant semester on Moodle.

Class tests and timed assessments

Five courses are assessed through class tests, or timed assessments, that occur at specific times through the semester. These courses are detailed in the table below. Specific times of such assessments will be made available on Moodle during the semester.

Course	Number of class tests or timed assessments
Probability and Stochastic Models	2
Probability and Sampling Fundamanentals	2

Course	Number of class tests or timed assessments
Learning from Data	1
Predictive Modelling	1
Data Management and Analytics using SAS	1

All timed assessments, including class tests, will be made available to sit online. Students should complete the tests at home and upload their answers on a specific day and students must be available on that day to complete the assessments. More details will be provided before each test.

Grading

Most coursework on this programme will be marked on percentage scales or using the University's 22-point system ("Schedule A"). In the University's grading system a primary grade (a letter from A to H) and a secondary band (an integer between 1 and at most 5) will be returned for each component of assessment. The University has produced verbal descriptors for each primary grade, which are given in the table below.

Grade	Grade	Gloss	Associated	Primary
(secondary	points		MSc	verbal
bands)	·		Classific'n	descriptor for grade

Grade (secondary bands)	Grade points	Gloss	Associated MSc Classific'n	Primary verbal descriptor for grade
A (A1A5)	22-18	Excellent	Distinction	Exemplary range and depth of attainment of intended learning outcomes, secured by discriminating command of a comprehensive range of relevant materials and analyses, and by deployment of considered judgement relating to key issues, concepts and procedures

Grade (secondary bands)	Grade points	Gloss	Associated MSc Classific'n	Primary verbal descriptor for grade
B (B1B3)	1715	Very good	Merit	Conclusive attainment of virtually all intended learning to reveal appreciable outcomes, clearly grounded on a close familiarity with a wide range of supporting evidence, constructively utilised depth of understanding

Grade (secondary bands)	Grade points	Gloss	Associated MSc Classific'n	Primary verbal descriptor for grade
C (C1C3)	1412	Good		Clear attainment of most of the intended learning outcomes, some more securely grasped than others, resting on a circumscribed range of evidence and displaying a variable depth of understanding

Grade (secondary bands)	Grade points	Gloss	Associated MSc Classific'n	Primary verbal descriptor for grade
D (D1D3)	119	Satisfactory		Acceptable attainment of intended learning outcomes, displaying a qualified familiarity with a minimally sufficient range of relevant materials, and a grasp of the analytical issues and concepts which is generally reasonable, albeit insecure

Grade (secondary bands)	Grade points	Gloss	Associated MSc Classific'n	Primary verbal descriptor for grade
E (E1E3)	86	Weak		Attainment deficient in respect of specific intended learning outcomes, with mixed evidence as to the depth of knowledge and weak deployment of arguments or deficient manipulations
F (F1F3)	53	Poor		Attainment of intended learning outcomes appreciably deficient in critical respects, lacking secure basis in relevant factual and analytical dimensions

Grade (secondary bands)	Grade points	Gloss	Associated MSc Classific'n	Primary verbal descriptor for grade
G (G1, G2)	21	Very poor		Attainment of intended learning outcomes markedly deficient in respect of nearly all intended learning outcomes, with irrelevant use of materials and incomplete and flawed explanation
Н	0			No convincing evidence of attainment of intended learning outcomes, such treatment of the subject as is in evidence being directionless and fragmentary

Understanding the Marking System -- A Guide for Students

School policy on conversion of percentage grades to 22 point scale

If an assessment is graded on a percentage scale then the percentage of marks awarded will then be converted to a primary grade and secondary band on the 22 point scale. The school has a policy on the conversion of percentage grades to the 22 point scale which can be found in this **Policy document**.

This page lives on a School Moodle page which you may need to join to see the document. You may also find other useful documents on this page.

Publication of course grades

Grades are subject to moderation by the external examiner and thus all grades are provisional until confirmed by the external examiner. Final grades will be released on MyCampus. Please note that the process of releasing grades is external to the programme management team and it can take some time before your grades are released on MyCampus. For courses taken in semester 1 and semester 2, students can expect grades to be released on MyCampus in June. For courses taken in semester 3, students can expect grades to be released on MyCampus in September. We are unable to provide students with course grades until they are released on MyCampus.

Students who complete, in weight, less than 75% of the assessments of a course will be refused credit (CR) for this course.

MV, CW and CR

In some cases, you may not receive a final grade for a course on Mycampus and may have a grade returning MV, CW or CR. Each of these cases is detailed below and the required actions needed by yourself to update this to a final grade for the course:

- MV This indicates that you have accepted good cause for one or several assessments
 on the course, and your grade will be calculated following the successful completion of
 these assignments during the reassessment period in August. Your final grade will not
 be capped.
- CW This indicates that you have "Credit Withheld" for a course, indicating that you
 have not completed the minimum threshold of 75% of assessment required to be
 awarded credit for the course at the first attempt. You will have the opportunity to take
 any missed assessment during the reassessment period in August. If you do not take
 reassessment in August you will have credit refused for the course.
- CR This indicates that you have not met the minimum requirement of assessment of 75% for the course and have not taken these missed assessments during the

reassessment period. If you obtain credit refused, you will no longer be able to continue on the programme.

You can find more information on Reassessment and Good Cause below.

Reassessment

For each course, reassessment will be made available to students obtaining an overall grade less than the threshold grade of C3 for that course. After the reassessment(s) have been completed, the overall grade for a course is calculated using for each component the better grade out of the original one and the one obtained after reassessment. If a student has taken reassessments, the overall grade points for the course will be capped at 12 (corresponding to a C3).

The grade points will *not* be capped if the student has taken reassessments only as a result of an accepted claim of Good Cause affecting the original assessment.

Students can only take reassessments in the same academic year as they have taken the course in. Specifically, it is not possible to take reassessments for courses taken in the first year at the end of the second year. The University Regulations allow you to attempt each course only once, unless there is Good Cause (see below), i.e., you cannot "repeat" a course in the following year.

Students who obtain less than a C3 in a course can still qualify for the award of the MSc degree. On a part-time programme this means you have to take the decision as to whether or not to take reassessments before you know whether your current grade would prevent you from being awarded the MSc degree.

Reassessment grades are subject to moderation by the external examiner and thus all grades are provisional until confirmed by the external examiner. Final grades will be released on MyCampus, and students can expect their grades to be released in late October.

Weblink 5

Section on Reassessment from the Guide to the Code of Assessment

Weblink 6

Information on academic misconduct for reassessments

Late Submission of Coursework

If you submit coursework late without Good Cause then your grade for this piece of work will be subject to a late submission penalty.

Submission no later than	Penalty	
1 working day after the deadline	Grade reduced by 2 secondary bands	
2 working days after the deadline	Grade reduced by 4 secondary bands	
3 working days after the deadline	Grade reduced by 6 secondary bands	
4 working days after the deadline	Grade reduced by 8 secondary bands	
5 working days after the deadline	Grade reduced by 10 secondary bands	
more than 5 working days late	Grade H for this piece of work	

Parts of a day are regarded as a day, i.e., if you submit one hour late or one minute late then your grade will be reduced by two secondary bands (so, for example, an A5 (18 on the 22-point scale) would become a B2 (16 in the 22-point scale)). The University does not count weekends as working days. Therefore, if an assessment is due at 23:59 on a Friday and a student submits at 9am on the following Monday then their grade will be reduced by two secondary bands.

Due to technological limitations, online quizzes close when they are due and thus no late submissions are allowed for these.

If you are unable to submit coursework on time due to circumstances beyond your control or anticipate not being able to do so, you can ask for a short extension without the above penalties applying. Requests should be sent to the course lecturer. The decision as to whether an extension is granted is entirely at the discretion of the teaching team and might be restricted by technological limitations. Extensions for online quizzes can only be given if you give us enough prior notice. It is not possible to provide an extension once a deadline passes.

This more informal system operates in parallel to the formal system for dealing with Good Cause.

Weblink 7

Section on Late Submission of Coursework from the Guide to the Code of Assessment

Good Cause

If illness or other adverse personal or professional circumstances have prevented you from attending an examination or submitting coursework (on time or at all), or similarly if illness or other circumstances have affected your performance in an assessment, you need to report this on MyCampus within one week of the assessment. Later claims must explain why you have been unable to notify the University within the specified deadline of one week.

The Board of Examiners or the Head of School represented by the School's Assessment Officer in charge of this programme will then determine whether the evidence presented by you constitutes 'good cause' as set out in the Code of Assessment.

If good cause has been established you will generally be given another chance to complete the assessment at the next available opportunity. This will then be considered as your first attempt, i.e. the resulting overall grade will not be capped as it would be the case if you had taken reassessment.

If good cause has been established and this good cause has prevented you from submitting a piece of coursework on time then no penalties for late submission will be applied.

Please note that it is not possible to "adjust" a grade based on the evidence provided. If you have completed an assessment and your claim for good cause covering this assessment is accepted then the grade you would have obtained at that attempt will be discarded. In this case it is best if you discuss your situation with the programme management team and your adviser of studies.

If a good cause claim is accepted, the next available opportunity to take the affected assessment will be during the reassessment period (please see the semester dates for reassessment periods). Please note that if the affected assessment is not completed during the reassessment period, i.e. with continued good cause, then the next available opportunity is likely to be during the next academic session. In this case, students may be liable to pay additional fees to complete the assessment during the next academic session.

Weblink 8

Good Cause Information and FAQs for Students

Awards

Master of Science (MSc)

In order to qualify for the degree of Master of Science you must

- obtain a grade point average (GPA) of at least 12.0 (corresponding to a C3) in the taught 120 credits,
- obtain a grade of at least F3 in all of the 120 taught credits,
- obtain a grade of at least D3 in 90 out of the 120 taught credits, and
- obtain a grade of at least D3 in the final project.

Distinction

You will be eligible for the award of the MSc with Distinction if at first attempt

- your grade point average across the entire 180 credits making up the MSc is at least 17.5,
- your grade point average across the taught 120 credits is at least 17.0 (corresponding to a B1), and
- your grade for the final project is at least B1.

If your overall grade point average is at least 17.1 and you meet the other two criteria, the award of a Distinction is at the discretion of the Board of Examiners.

Merit

You will be eligible for the award of the MSc with Merit if at first attempt

- your grade point average across the entire 180 credits making up the MSc is at least 14.5,
- your grade point average across the taught 120 credits is at least 14.0 (corresponding to a C1), and
- your grade for the final project is at least C1.

If your overall grade point average is at least 14.1 and you meet the other two criteria, the award of a Merit is at the discretion of the Board of Examiners.

Postgraduate Diploma (PGDip)

In order to qualify for a postgraduate diploma you must

- obtain a grade point average of at least 9.0 (corresponding to a D3) in the taught 120 credits and
- obtain a grade of at least D3 in 80 out of the 120 taught credits.

Students aiming to graduate with a postgraduate diploma do not need to work on a dissertation.

Distinction

You will be eligible for the award of the Postgraduate Diploma with Distinction if **at first attempt** your overall grade point average is at least 17.5. If your grade point average is at least 17.1 the award of a Distinction is at the discretion of the Board of Examiners.

Merit

You will be eligible for the award of the Postgraduate Diploma with Merit if **at first attempt** your overall grade point average is at least 14.5. If your grade point average is at least 14.1 the award of Merit is at the discretion of the Board of Examiners.

Postgraduate Certificate (PGCert)

In order to qualify for a postgraduate certificate you must

- obtain a grade point average of at least 9.0 (corresponding to a D3) in 60 taught credits,
 and
- obtain a grade of at least D3 in 40 taught credits.

Students aiming to graduate with a postgraduate certificate do not need to take more than 60 credits. If you have taken more than 60 credits, the best 60 credits can be used to satisfy the above conditions.

Awards of a Distinction or Merit are governed by the same rules as for the Postgraduate Diploma, however only applied to the best 60 credits.

Progression

In order to continue to be a student registered on the programme you need to meet the progression requirements set out below.

After Completion of at Least 60 credits (PGDip/MSc)

At the end of the year after which you have completed at least 60 credits you must have achieved a cumulative grade point average of at least 7.0 (corresponding to an E2) across all credits completed so far.

After Two Years (PGCert/PGDip/MSc)

If you have not yet completed 60 credits after two years, you must have achieved a cumulative grade point average of at least 7.0 (corresponding to an E2) across all credits completed in the first two years.

After 120 credits (MSc)

After having completed 120 credits you must have

- obtained a grade point average (GPA) of at least 12.0 (corresponding to a C3) in the taught 120 credits,
- obtained a grade of at least F3 in all of the 120 taught credits, and
- obtained a grade of at least D3 in 90 out of the 120 taught credits

to be allowed to enter the dissertation phase.

The decision as to whether you can start working on the project if you have not yet completed all the taught courses of the programme is at the discretion of the programme management team. Their decision will take into account the grades you have obtained in the courses you have already completed and will be based on whether it seems likely that you will meet the requirements once you have completed all courses. Please note that even if you have been allowed to start the project before completing all courses you still need to fulfill the above requirements so that you can be awarded an MSc. If you do not meet the above conditions once you have completed all courses, then you will not be able to obtain an MSc degree, but you will be considered for the Postgraduate Certificate or Postgraduate Diploma. If the work leading to your project is substantially complete, the University's regulations allow you to complete the project and a grade will be published. Otherwise, the work on the project must be discontinued.

Weblink 9

Generic Regulations

The Generic Regulations for ODL programmes in the College of Science and Engineering contain all the regulations regarding progression and award of degrees.

Plagiarism

It is plagiarism to try to pass off someone else's work as your own. The other person could be an acknowledged authority (e.g., the writer of a textbook or scientific paper), model answers provided for other or past courses, a private tutor, a fellow student or anyone who seemed to know what they are talking about. Unauthorised collaboration between students also counts as plagiarism, and it is your responsibility to ensure that you are clear about the extent of collaboration permitted. The University of Glasgow views plagiarism as a very serious offence and deals with it formally under the Code of Discipline. Students found guilty of plagiarism will lose marks, possibly all the marks available for the affected piece of work. In extreme cases, such students could be refused credit for a course. Students who submit work that appears to be plagiarised, in whole or in part, will be reported to the Senate Assessors for Discipline.

University Guidance on Plagiarism

Weblink 11

University policy on misconduct on online exams.

Weblink 12

Information about Plagiarism from the Students' Representative Council (SRC)

Software and IT requirements

Teaching material

All teaching materials will be made available online as a PDF file for downloading and offline use. You should be able to access these materials with any standard-compliant web browser and PDF viewer, both on desktop computers and mobile devices. We have rolled out an interactive web version ("HTML format") of course notes although we cannot guarantee this is available for all courses over this academic year.

Please note that teaching and assessment materials provided are for your own personal use and should only be used in relation to your studies. Any unauthorized distribution of course materials, including the uploading of them, without authorization, onto web sites and social media sites, or sites such as Course Hero, will be considered in breach of the **Student Code of Conduct** and will be subject to disciplinary action.

Some learning materials and assessments may require you to download certain files for you to use. You should ensure the device you are using for learning is able to download such files before the programme commences.

Videos

We use YouTube to host videos. All videos are produced in 1080p resolution ("full HD quality"), however the resolutions available when you play a video depend on the speed of your internet connection and other factors.

Please get in touch with us if YouTube is not available where you live and we will aim to make the videos available to you using other means.

Software Requirements

Zoom

We use Zoom for synchronous live sessions and appointments between staff and students.

Zoom is available for Windows, MacOS and Linux as well as Android-based and iOS-based mobile devices. If you want to use Zoom on a desktop computer, please make sure you have a headset and microphone and ideally also a webcam.

Weblink 13

Zoom for Staff and Students at the University of Glasgow

The University has a site license for Zoom and you can sign into Zoom using your University credentials at this address.

R

You will need access to a local installation of R and it would be beneficial if you have also installed RStudio. R is available for a wide range of platforms and RStudio is available for Windows, Mac OS and Linux.

Weblink 14

Website of the R project

RStudio Website

You will only need the open-source edition of RStudio Desktop.

Python

For some courses on the programme, you will require a local installation of Python. These courses will use Python 3 as well as the following Python libraries:

- numpy
- pandas
- matplotlib
- seaborn
- scikit-learn
- statsmodels

It is easiest if you install Anaconda Python, as it already comes with all the above libraries.

Weblink 16

Anaconda Python

Anaconda is a Python distribution for data scientists, which already contains all the libraries required.

SAS

You do not need to have access to the desktop version of SAS and we will not be able to provide you with it. However, SAS OnDemand for academics is free of charge to university students.

Weblink 17

SAS OnDemand for Academics

You can use SAS OnDemand from SAS free of charge.

Other Software

Individual courses might use additional software. With the exception of SAS, we aim to only use free, open-source software in our courses. However, the University has subscribed to a large number of site-license deals for software, some of which give you free access to proprietary software (such as MATLAB). Please note that none of this software will be required for this programme.

Weblink 18

Software for Students at the University of Glasgow

IT Services provide a list of software available to students.

Student Support

As an online student you have, in principle, access to the same support services as on-campus students in addition to a LinkedIn group for our programme.

In this section, we detail a comprehensive list of student services available to you. In order to deal with any issues or questions you may have, please contact the relevant service directly.

LinkedIn

Students on the programme are encouraged to join the programme **LinkedIn group** for networking and sharing links and ideas relevant to Data Analytics.

Weblink 19

University of Glasgow - MSc in Data Analytics (online distance learning)

UofG Helpdesk

The **UofG Helpdesk** is where students can search for answers using the knowledge base, or submit requests for help or services. In order to deal with your query as quickly as possible, we recommend you use the online helpdesk.

You can also submit a request through the Service Catalogue if you need more help.

If you do not have a GUID you can **login as a guest** to search the Knowledge Base or submit a request or report an issue via the Service Catalogue.

MyCampus

MyCampus can be used to manage your student record and university finances or to produce your own certifying letters and transcripts. You can log in to MyCampus once you have received your GUID and password from student registry.

Weblink 20

MyCampus login

Registration

To become a fully registered student of the University, you must register online:

- You will do this every year before the start of your programme of study
- You will use MyCampus the University's student information system
- You will receive full details of how to log into MyCampus by email from student registration after you receive and accept an unconditional offer for this programme.

Every academic year, registration will be available for eligible students on a phased basis, and you will receive the email only if you have:

- · Met all the conditions of offer
- Formally accepted the offer
- Met the requirements for progression

For new students, you will receive an "Access to your Student Account" email. This provides details of, your Glasgow Unique Identifier (GUID), your temporary password, how to access your student account, links to support and guidance materials and contacts.

For continuing students, you can check whether you have met requirements for progression to the next year of study by looking at your 'Academic Standing' in your MyCampus Student Centre. You will see one of the codes listed in the **Academic Standing table**. If you have a **debt remaining on your account** you will not be able to register until this debt is cleared.

If you have not received an email 2 weeks before the start date, please raise a **UofG Helpdesk** request.

All students must **register academically**. After you have completed academic registration, you should then enroll in your classes **before** completing financial registration. If you have not enrolled in your classes before completing financial registration, you will see an estimated part time tuition Fee in your financial registration balance, which will equate to the cost of 20 credits in most cases. Once you have enrolled in your courses, you should then complete financial registration.

Financial Registration

All students must declare how they plan on paying for their studies. Below are some useful guidelines for common payment methods

- Credit Card
- Direct Debit
- Bank Transfer
- External sponsorship

Weblink 21

Student Finance

The university provides some guidance on setting up financial agreements. Please refer to this **guidance** if you need to make a payment, setup a payment plan, print receipts or print an invoice.

External Sponsorship

If your fees are being paid for you, then you need to provide details of an external sponsor or scholarship who will pay fees on your behalf. You may be required to upload a digital copy of your sponsor's award letter into MyCampus. If you have not yet applied for your fee sponsorship, you will not be able to complete the financial registration process. You will be unable to enroll for courses until you have completed financial registration.

Sponsored students can find out what's required on your award letter from your sponsor and how to complete financial registration.

If you an considering applying for an external sponsor or scholarship, then it is your responsibility to ensure you have an award letter in place prior to the beginning of the programme. The management team are unable to offer any help with respect to external sponsorship.

Adviser of Studies

Your Adviser of Studies will be able to help advise you on academic matters. Depending on your circumstances, your adviser may not be the appropriate person to support you. However, they will be able to provide you with the contact details of someone that can, or a source for the information you require.

All students are allocated an Adviser of Studies after registration. You can identify your adviser of studies on MyCampus.

Student Support Officer

The Student Support Officer is here to help you feel supported during your studies and assist you in accessing any university services you may require. Our student support officer for the School of Mathematics and Statistics is Emilia Mack. You can contact Emilia if you need someone to talk to, or for practical advice on a number of non-academic issues.

This could include, but is not limited to, guidance and information regarding:

- Managing wellbeing
- Accessing the counselling service
- Accessing support for a disability
- Finances and Financial Aid
- Personal problems
- Careers information and the Careers Service
- Study supports

The Student Support Officer works closely with staff from Student Services at the University and can offer advice, support, and signposting to the relevant services and teams as required.

You can email the Student Support Officer with your enquiry, or request a 1–2–1 appointment (available via Zoom) using

maths-stats-studentsupport@glasgow.ac.uk

Student Carers

The university actively supports those students who have caring responsibilities and offers a range of support and provision for such students.

The **Supporting Student Carers** site offers a range of support options for students, such as application guidance, adjusted offer of entry and one-to-one advice with our designated Student Carer Support Coordinator.

The University is committed to providing as much flexibility as possible for student carers. For those carers who require special arrangements due to their caring responsibilities, these can be put in place by filling out a **Student Carers Plan** with your Advisor of Studies.

The University has a Student Carers' Policy which outlines how the university can support you to balance your caring responsibilities with you studies which can be found at the link below.

Counselling Service

The University has a dedicated Counselling and Psychological Service, which can help you in a wide range of difficulties such as loneliness, anxiety, depression, suicidal feelings, problems in relationships, family problems and troubling past experiences, bereavements and losses, life changes such as pregnancy and illness, sexual and cultural identity, as well as academic difficulties. The service provides both self-help resources as well as individual appointments.

Weblink 22

University Counselling and Psychological Service

Student Representative Council (SRC)

The SRC is the student body of the University and can support you in a variety of ways.

Weblink 23

SRC Website

The SRC employ professional advisers to help you through any problems you might be having. These can range from welfare issues such as money and accommodation to representation in academic appeals and disciplinary matters. This is a free service and no appointment is necessary. As an online students it is easiest if you contact the Advice Centre by phone on +44 (0) 141 330 5360 or by email at advice@src.gla.ac.uk.

Weblink 24

SRC Advice Centre

Student Disability Service

if you have a disability or medical condition which might affect you studies, please inform the University's Disability Service so that appropriate support can be arranged for you.

Weblink 25

University Disability Service for Students

SLD for Students

The University's Student Learning Development service (SLD) provides students with additional academic support and advice such as study skills or writing skills.

Weblink 26

SLD for Students website

Careers Service

The University's Careers Service offers appointments and coaching sessions with careers managers, comprehensive online resources and opportunities to connect with alumni as well as support for entrepreneurial students.

University Careers Service

Students are welcome to access the online maths and stats support sessions. You can book a one-to-one appointments through the MyCampus Appointment Booking System.

Please see **SLD** for more information on subject specific classes and drop-ins for courses that use a lot of maths, stats and numeracy.

Student Card Distribution

Your Campus Card grants you access to University facilities such as the library and sports facilities, and will entitle you to student discounts in a wide variety of shops, bars, cinemas and online.

You must **upload** a a **passport-style photograph** which will be used to generate your Campus Card.

Campus Cards for most students will be posted to the term address that you enter during registration, so it is important that your address is entered accurately.

Graduation

For students who have completed any of the MSc/PGDip/PGCert programmes, you can **enroll for graduation**. If you have any questions about graduation, please email **graduation@glasgow.ac.uk**.

You will be eligible for graduation prior to receiving a final grade on Mycampus for the final project. You should register for graduation **prior to your final grade being released**, else you may miss the enrollment window and will not be elgible to graduate at this time.

Weblink 28

Graduation Information

Withdrawing from the University

Withdrawal is the formal process for leaving your programme of study and the University.

If you plan to withdraw because of financial difficulties you are advised to contact the **Financial Aid Team**, who may be able to provide assistance.

To submit a withdrawal request, log in to My Student Center then click on My Withdrawal Form

If you are considering withdrawing from the programme, please contact your Adviser of Studies who can offer some guidance and support that may mean you can continue with your studies.

Refund

Your tuition fee liability will be recalculated as part of the withdrawal process. Depending on the date of your withdrawal, and how you are funding your studies, you may find you have to pay outstanding tuition fee or other charges or your account may be in credit. If you are in credit, you need to request a refund via the **Helpdesk**.

Further information on how withdrawal will affect tuition fee liability is available in the **Refund Policy**.

Re-entering the University

If you decide to re-enter the University following your withdrawal, you should apply for readmission.