Programme Regulations: 2025/26

Programme Titles:

Master of Science in Advanced Data Science with Statistics - Code 5520F

Master of Science in Advanced Data Science with Health - Code 5521F

Notes
(i)   These programme regulations should be read in conjunction with the University's Taught Programme Regulations.
(ii)   A compulsory module is a module which a student is required to study.
(iii)   All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.
(iv)   Optional modules may not be selected for which credit has been gained on a related module on a previous Newcastle University programme.

1.   Programmes Structure

(a)   The programmes are available for study in full-time mode only
(b)   The period of study for full-time mode shall be 1 year.
(c)   The programmes comprise modules to a credit value of 180.
(d)   All candidates shall take the following compulsory modules:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
CSC8621	Computing Foundations of Data Science	10	10			7	Compulsory	Block
CSC8628	Image Processing	10	10			7	Compulsory	Block
CSC8635	Machine Learning with Project	10	10			7	Compulsory	Block
MAS8600	Graduate Foundations of Statistics and Data Science	30	30			7	Compulsory	Block
MAS8607	Foundations of Machine Learning with Advanced Topics	10		10		7	Compulsory	Linear

(e) MSc Advanced Data Science with Health candidates (5521F) shall take the following compulsory modules:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
HSC8100	Clinical Trials with Advanced Topics	10		10		7	Compulsory	Linear
HSC8101	Decision Modelling for Health Data Science with Advanced Topics	10		10		7	Compulsory	Linear
HSC8102	Advanced Topics in Medical Statistics and Health Data Science	10		10		7	Compulsory	Linear

(f) MSc Advanced Data Science with Statistics candidates (5520F) will choose one 60 credit module from the list below:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
MAS8604	Dissertation in Statistical Data Science	60			60	7		Linear
MAS8605	Industrial Dissertation in Statistics and Data Science	60			60	7		Linear

(g) MSc Advanced Data Science with Health candidates (5521F) will choose one 60 credit module from the list below:

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
HSC8199	Dissertation In Health Data Science	60			60	7		Linear
MAS8605	Industrial Dissertation in Statistics and Data Science	60			60	7		Linear

(h)   All candidates shall take optional modules from the following list. MSc Advanced Data Science with Statistics candidates (5520F) shall select to a total value of 50 credits, and MSc Advanced Data Science with Health candidates (5521F) shall select to a total value of 20 credits.
(*This will exclude all modules already identified as compulsory above*).

Code	Descriptive title	Total Credits	Credits Sem 1	Credits Sem 2	Credits Sem 3	Level	Type	Mode
HSC8100	Clinical Trials with Advanced Topics	10		10		7		Linear
HSC8101	Decision Modelling for Health Data Science with Advanced Topics	10		10		7		Linear
HSC8102	Advanced Topics in Medical Statistics and Health Data Science	10		10		7		Linear
MAS8608	Experimental Design with Advanced Topics	10		10		7		Linear
MAS8610	Extreme Value Theory with Advanced Topics	10		10		7		Linear
MAS8612	Survival Analysis with Advanced Topics	10		10		7		Linear
MAS8613	Time Series with Advanced Topics	10		10		7		Linear
MAS8614	Stochastic Financial Modelling with Advanced Topics	10		10		7		Linear

With the approval of the Degree Programme Director and depending upon the academic background of the candidate, alternative optional modules to those listed above may be selected.

2.   Assessment methods

Details of the assessment pattern for each module are explained in the module outline.