

MASTER OF DATA SCIENCE (3735)

Approved Abbreviation: MDataSc

Western Sydney University Program Code: 3735

AQF Level: 9

CRICOS Code: 089442E

This program applies to students who commenced in 2021 or later.

Students should follow the program structure for the session start date relevant to the year they commenced.

Commencement year 2016 - 3735.1 - Master of Data Science (<http://handbook.westernsydney.edu.au/hbook/course.aspx?course=3735.1>)

Increasingly in the digital age data plays an important role in most, if not all, occupations. Extracting information from data has become a science in itself, blending skill sets from mathematics, statistics and computing. With a strong applications focus, this program covers the nature of data including Big and Unstructured Data, how to embark on data driven investigations and visual and computational analytics. The program graduates will have the knowledge and skills required to operate effectively in a data driven world.

Early Exits

Students may exit this program on completion of 40 credit points with a 3751 Graduate Certificate in Data Science (<https://hbook.westernsydney.edu.au/archives/2022-2023/programs/graduate-certificate-data-science/>) or on completion of 80 credit points with a 3750 Graduate Diploma in Data Science (<https://hbook.westernsydney.edu.au/archives/2022-2023/programs/graduate-diploma-data-science/>)

Study Mode

Two years full-time or four years part-time.

Program Advice

Program Advice (CDMS@westernsydney.edu.au)

Prospective students should visit the following websites for general enquiries about this program.

Enquire about this program (<https://enquiry.westernsydney.edu.au/courseenquiry/>) | Local Admission (<https://www.westernsydney.edu.au/future/>) | International Admission (<https://www.westernsydney.edu.au/international/home/apply/admissions/>) |

Location

Campus	Attendance	Mode	Advice
Parramatta Campus - Victoria Road	Full Time	Internal	See above
Parramatta Campus - Victoria Road	Part Time	Internal	See above

Admission

To enter the Master of Data Science program applicants must have successfully completed an undergraduate degree, or higher, in any discipline.

Additional Information

Previous experience of statistics or computer programming will be an advantage but is not essential.

Applicants with the following may be eligible to receive up to 80 credit points in advanced standing:

- an undergraduate degree in data science and 2 years full-time equivalent managerial/professional work experience in roles relating to data science, machine learning, statistician, data analyst or associated roles;

OR

- a graduate certificate, or higher, in data science.

Applicants seeking admission on the basis of work experience must support their application with a Statement of Service for all work experience listed on the application.

Statement of Service form (https://www.westernsydney.edu.au/content/dam/digital/pdf/Statement_of_Service.PDF)

Applications from Australian and New Zealand citizens and holders of permanent resident visas may be made via the Universities Admissions Centre (UAC) or directly through the Western Portal. Use the links below to apply via UAC or Western Sydney University. Applications made directly to Western Sydney do not have an application fee.

<http://www.uac.edu.au/>

<https://westernsydney.uac.edu.au/ws/>

Applicants who have undertaken studies overseas may have to provide proof of proficiency in English. Local applicants who are applying through the Universities Admissions Centre (UAC) will find details of minimum English proficiency requirements and acceptable proof on the UAC website. Local applicants applying directly to the University should also use the information provided on the UAC website.

<http://www.uac.edu.au/>

All other International applicants must apply directly to the University via the International Office.

International students applying to the University through the International Office can find details of minimum English proficiency requirements and acceptable proof on their website.

International Office (<http://www.westernsydney.edu.au/international/>)

Overseas qualifications must be deemed by the Australian Education International - National Office of Overseas Skills Recognition (AEI-NOOSR) to be equivalent to Australian qualifications in order to be considered by UAC and Western Sydney University.

Qualification for this award requires the successful completion of 160 credit points as per the recommended sequence below.

Recommended Sequence

Full-time start-year intake

Course	Title	Credit Points
Year 1		
Autumn session		
COMP 7024	Programming for Data Science	10
MATH 7016	The Nature of Data	10
COMP 7003	Big Data	10
COMP 7016	Visualisation	10
Credit Points		40

Spring session		
COMP 7006	Data Science	10
MATH 7002	Advanced Statistical Methods	10
COMP 7023	Predictive Analytics	10
Select one elective		10
Credit Points		40

Year 2

Autumn session		
COMP 7025	Social Media Intelligence	10
INFO 7016	Postgraduate Project A	10
MATH 7017	Probabilistic Graphical Models	10
MATH 7007 Genomic Data Science was replaced by MATH 7017 in 2021		
Select one elective		10
Credit Points		40

Spring session		
INFO 7001	Advanced Machine Learning	10
INFO 7017	Postgraduate Project B	10
Select two electives		20
Credit Points		40
Total Credit Points		160

Equivalent Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MATH 7011 Predictive Analytics, replaced by COMP 7023 Predictive Analytics

MATH 7012 Programming for Data Science, replaced by COMP 7024 Programming for Data Science

Replaced Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MATH 7007 Genomic Data Science, replaced by MATH 7017 Probabilistic Graphical Models

Full-time mid-year intake

Course	Title	Credit Points
Year 1		
Spring session		
COMP 7006	Data Science	10
COMP 7024	Programming for Data Science	10
MATH 7016	The Nature of Data	10
Select one elective		10
Credit Points		40
Autumn session		
COMP 7003	Big Data	10
COMP 7016	Visualisation	10
COMP 7025	Social Media Intelligence	10
Select one elective		10
Credit Points		40
Year 2		
Spring session		
MATH 7002	Advanced Statistical Methods	10
INFO 7001	Advanced Machine Learning	10
COMP 7023	Predictive Analytics	10

INFO 7016	Postgraduate Project A	10
Credit Points		40

Autumn session		
MATH 7017	Probabilistic Graphical Models	10
MATH 7007 Genomic Data Science was replaced by MATH 7017 in 2021		
INFO 7017	Postgraduate Project B	10
Select two electives		20
Credit Points		40
Total Credit Points		160

Equivalent Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MATH 7011 Predictive Analytics, replaced by COMP 7023 Predictive Analytics

MATH 7012 Programming for Data Science, replaced by COMP 7024 Programming for Data Science

Replaced Subjects

The subjects listed below count towards completion of this program for students who passed these subjects in 2021 or earlier.

MATH 7007 Genomic Data Science, replaced by MATH 7017 Probabilistic Graphical Models

Elective subjects

Students may select their electives from any program offered by the university, provided any requisite requirements are met.

Elective Spaces

Students may select their electives from any program offered by the university, provided any requisite requirements are met. Elective subjects must be at Postgraduate Level.

Students may use their elective subjects towards obtaining one of the approved Majors:

Artificial Intelligence, Testamur Major (T002) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/artificial-intelligence-pg-testamur-major/>)

Cybersecurity, Testamur Major (T003) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/cybersecurity-pg-testamur-major/>)

Digital Health, Testamur Major (T089) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/digital-health-testamur-major/>)

Health Informatics, Testamur Major (T007) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/health-informatics-pg-testamur-major/>)

Health Science Modelling and Research, Testamur Major (T141) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/health-science-modelling-research-testamur-major/>)

Public Health, Testamur Major (T021) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/public-health-ug-testamur-major/>)

Space Science, Testamur Major (T030) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/space-science-testamur-major/>)

Alternatively, students may use their elective subjects towards completing 40 credit points from one of the following Master of Business Administration AACSB approved Majors.

Finance, Major (0226) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/finance-pg-major/>)

Information and Communications Technology, Major (0232) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/information-communications-technology-pg-major/>)

Innovation and Entrepreneurship, Major (0038) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/innovation-entrepreneurship-pg-major/>)

Logistics and Supply Chain Management, Major (0235) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/logistics-supply-chain-management-pg-major/>)

Management, Major (0136) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/management-pg-major/>)

Marketing, Major (0137) (<https://hbook.westernsydney.edu.au/archives/2022-2023/majors-minors/marketing-pg-major/>)