Master of Data Science (MADS) - MDSc

CRICOS code (International applicants): 0101854

You are currently viewing the 2023 Handbook. For study in 2024, please refer to the 2024 UniSQ Handbook.

Please be advised that this program will be transitioning from Semester to Trimester study periods in 2024. Trimester 1 starts on 22 January 2024. Read more in our new academic calendar FAQs.

- Maintain satisfactory academic achievement throughout the duration of the program, consistent with the UniSQ Student Academic Progress Procedure.
- Meet the Inherent Requirements for the Master of Data Science.

Program objectives

On completion of the program students should be able to:

- Autonomously apply key ICT and data science professional knowledge, technologies and programming skills to critically investigate and analyse contemporary core issues in a global market, and to develop big data analysis and evidence-based decision-making skills.
- Select, adapt and apply specialised quantitative and technical skills to work independently and collaboratively to process and interpret major theories and concepts associated with big data to solve and interpret complex and real-life problems.
- Work under broad direction within a team environment, manage conflict, and take a leadership role for a task within the project.
- Apply and communicate ethical, legal, and professional standards related to big data privacy and building of a security culture, and assess and evaluate risks in order to comply with customer organisational requirements.
- Investigate, critically analyse, evaluate and communicate research findings and problem solutions associated with applied data theories and methodologies to specialist and non-specialist audiences.

Australian Qualifications Framework

The Australian Qualifications Framework (AQF) is a single national, comprehensive system of qualifications offered by higher education institutions (including universities), vocational education and training institutions and secondary schools. Each AQF qualification has a set 0 0 1to:

the courses undertaken. Students are able to calculate the fees for a particular course via the Course Fee Schedules.

Commonwealth Supported students may be eligible to defer their fees through a Government loan called HECS-HELP.

Domestic full fee paying place

Domestic full fee paying places are funded entirely through the full fees paid by the student. Full fees vary depending on the courses that are taken. Students are able to calculate the fees for a particular course via the Course Fee Schedule

Domestic full fee paying students may be eligible to defer their fees through a Government loan called FEE-HELP provided they meet the residency and citizenship requirements.

Australian citizens, Permanent Humanitarian Visa holders, Permanent Resident visa holders and New Zealand citizens who will be resident outside Australia for the duration of their program pay full tuition fees and are not eligible for FEE-Help.

International full fee paying place

International students pay full fees. Full fees vary depending on the courses that are taken and whether they are studied on-campus, external or online. Students are able to calculate the fees for a particular course via the Course Fee Schedules.

Program structure

The program consists of 16 units comprising of:

- 12 units of core ICT courses; or
- 12 units of core ICT courses for the Artificial Intelligence and Machine Learning specialisation; or
- 12 units of core ICT courses for the Data Analytics specialisation

- **And either:** 4 units of Research course; or
- 4 units of Research Training; or
- 4 units of elective courses (any Postgraduate courses, subject to pre-requisite satisfaction)

Research

Research dissertation courses as electives

Students wishing to pursue a PhD are encouraged to complete the research dissertation courses below as their electives.

Courses	Online	Toowoomba	Springfield
MSC6001 Research Project I*#	1,2	1,2	
MSC6002 Research Project II*#	1,2	1,2	

Footnotes

* Two-unit course
\# Subject to prior approval by Program Director

Research training courses as electives

Students wishing to pursue a research and development career are encouraged to complete the research training courses below as their elective.

Courses	Online	Toowoomba	Springfield
MSC6003 Industry Based Research Practice I*#	1	1,2	
MSC6004 Industry Based Research Practice II*#	2	2	

OR			
SCI6101 Science in Practice	1,2		
SCI6102 Research Skills	1,2		
SCI6103 Research Fundamentals and Ethics	1,2	1,2	
1 x Elective course			

Footnotes

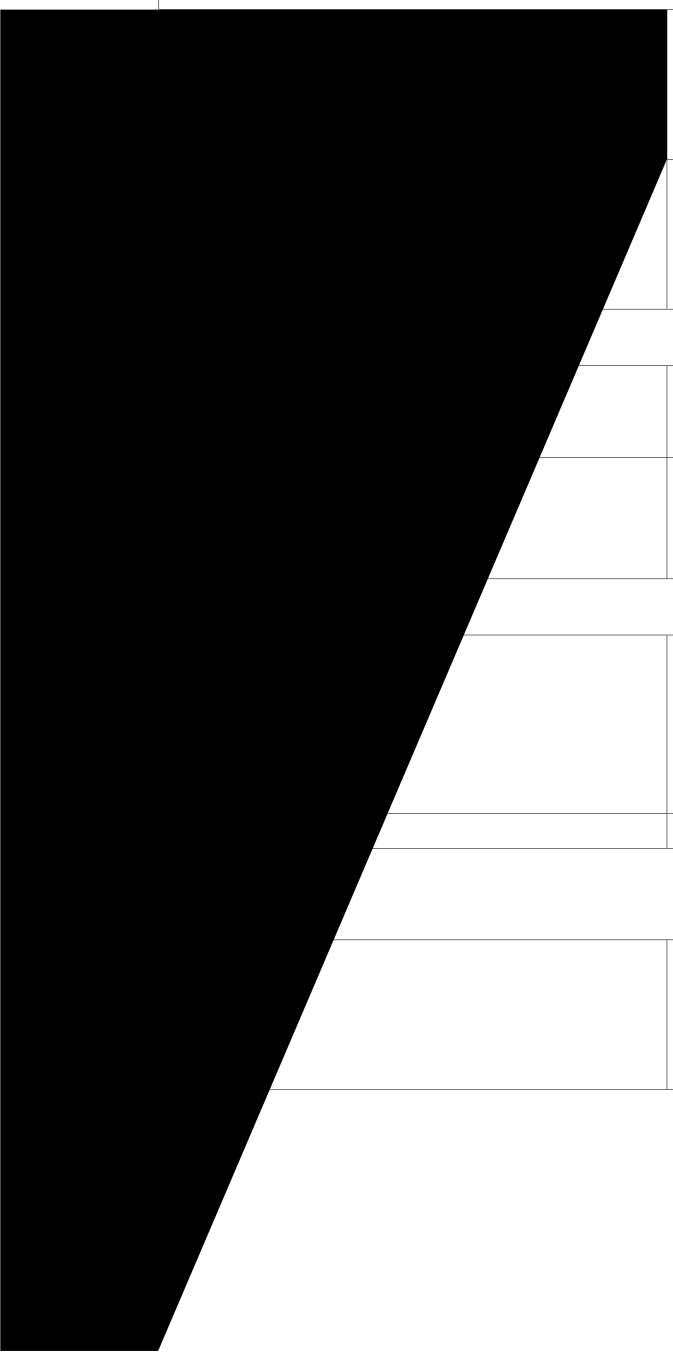
* Two-unit course

STA6200 Statistics for Quantitative Researchers	1,2	1	
CSC6201 Deep Learning>	1	1	
	1	1	

IT requirements

F

courses (MSC6001 Research Project I and MSC6002 Research Project II) or (MSC6003 Industry Based Research Practice I and MSC6004 Industry Based Research Practice II).



@lropb	Vb^olcmoldo^j ^kapbjbpqbofk tef`e`lropb fpkloj^iivpqrafba						Bkolijbkqobnrfobjbkqp
	Lk*`^jmrp %LK@&		Buqbok^i %BUQ&		Lkifkb %LKI&		
	Vb^o	Pbj	Vb^o	Pbj	Vb^o	Pbj	
or							
MSC6004 Industry Based Research Practice II*	3	2			3	2	Pre-requisite: MSC8003 or MSC6003

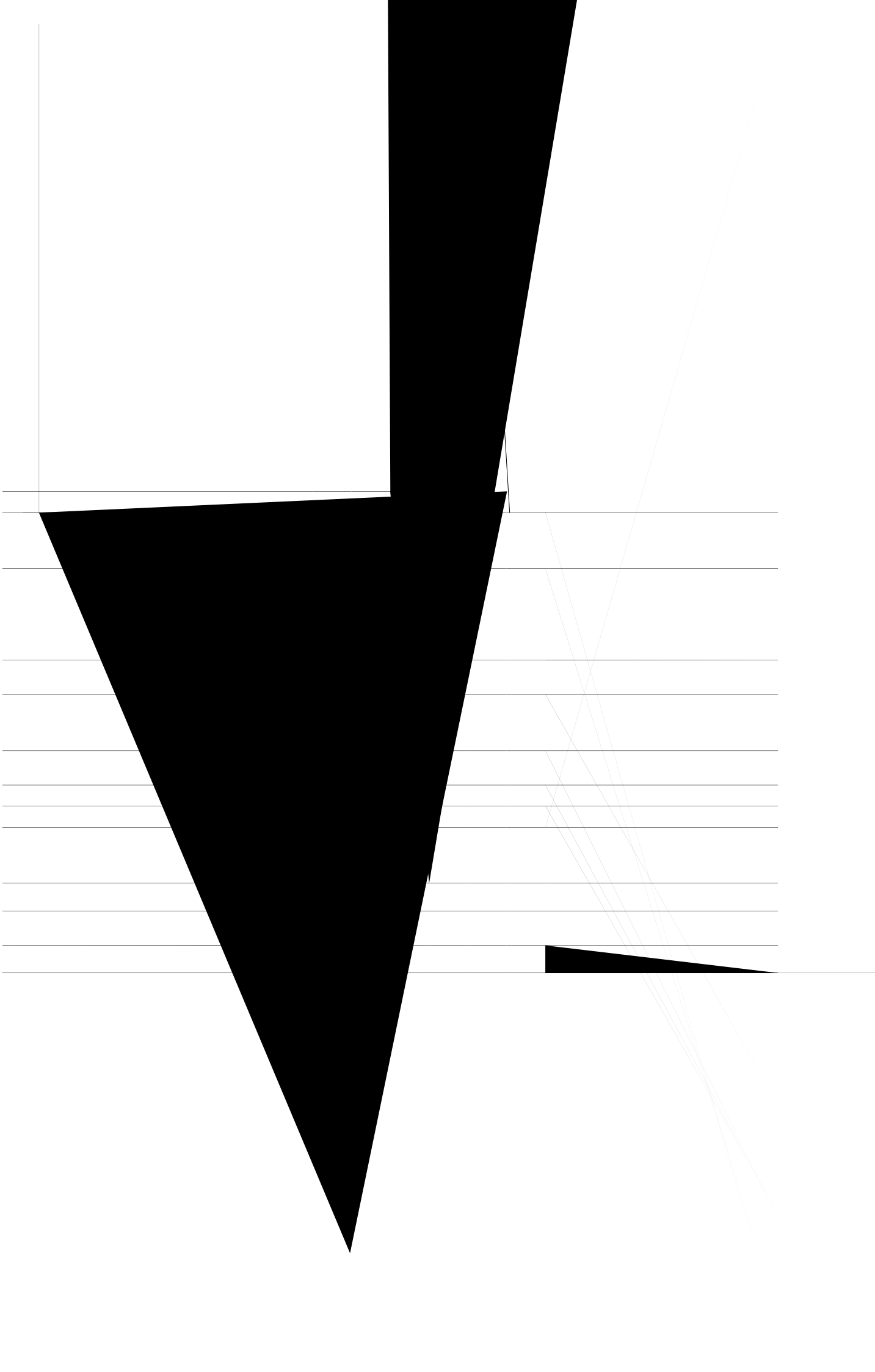
Footnotes

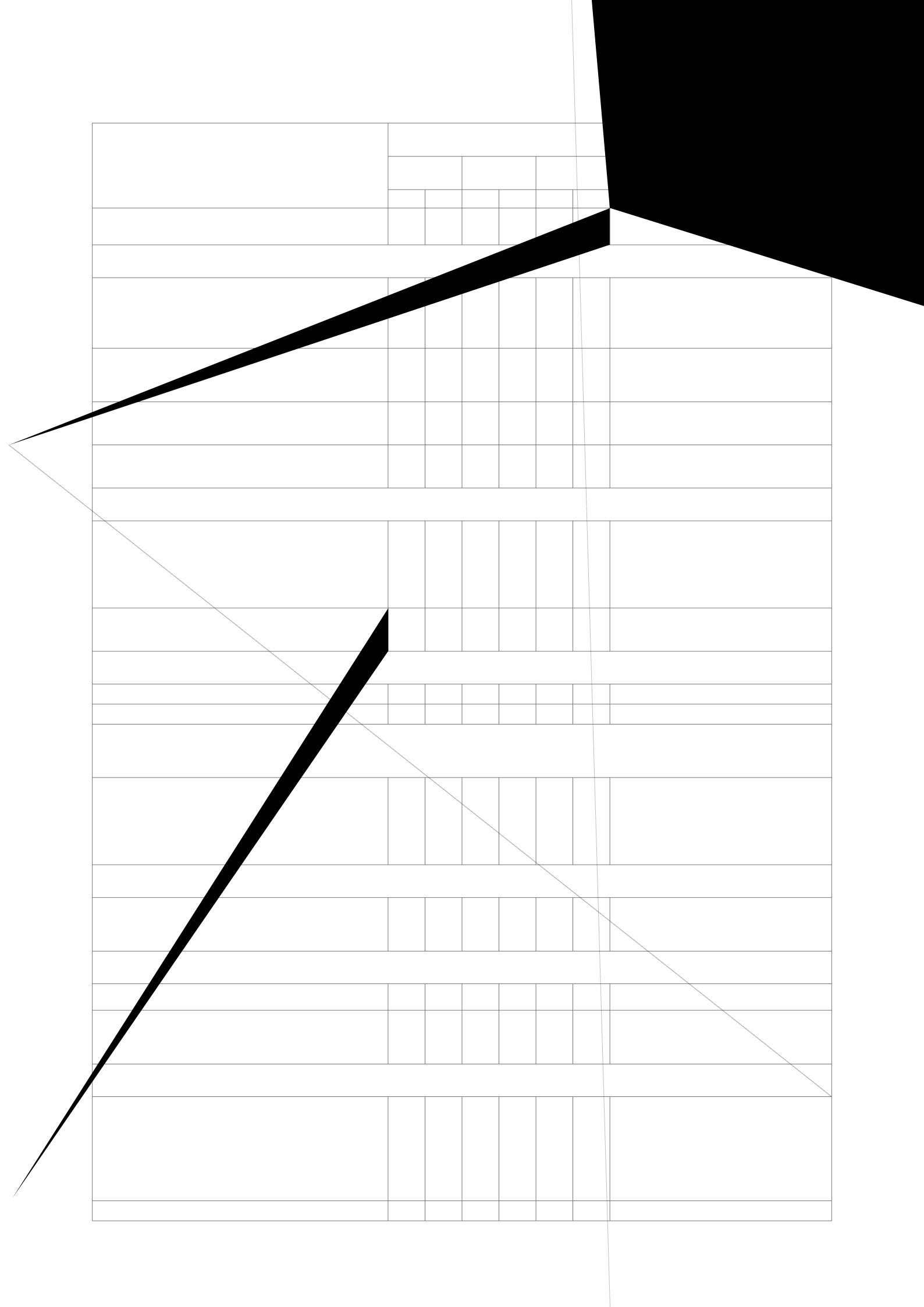
£ In Semester 3, 2023 this course will be delivered as a Transition (9 week) semester, commencing on 13 November 2023 and concluding on 12 January 2024

* Two unit course

Recommended Enrolment Pattern - Part-time (8 Semesters, S1 entry) - Enterprise Data Science

Students may, with approval of the Program Director and acceptance by an appropriate supervisor, elect to replace two or four units of research training courses (SCI6101 Science in Practice, SCI6102 Research Skills, SCI6103 Research Fundamentals and Ethics and/or 1 approved course) with one or two 2-unit research project courses (MSC6001 Research Project I and MSC6002 Research Project II) or (MSC6003 Industry Based Research Practice I and MSC6004 Industry Based Research Practice II).





@lropb	Vb^o lcmoldo^j ^kapbjbpqbofk tef`e`lropb fpklojˆiivpqrafba						Bkoli jbkqobnrfobjbkqp
	Lk*`^jmrp %LK@&		Buqbok^i %BUQ&		Lkifkb %LKI&		
	Vb^o	Pbj	Vb^o	Pbj	Vb^o	Pbj	
or one of the following courses for the Research Project Track (if approved instead of Research Training Track)							
MSC6002 Research Project II*	3	1,2			3	1,2	Pre-requisite: MSC8001 or MSC6001
or							
MSC6004 Industry Based Research Practice II*	3	2			3	2	Pre-requisite: MSC8003 or MSC6003

Footnotes

£ In Semester 3, 2023 this course will be delivered as a Transition (9 week) semester, commencing on 13 November 2023 and concluding on 12 January 2024

^ First offer S2 2023

> Commencing 2024

* Two unit course

Recommended Enrolment Pattern - Full-time (4 Semesters, S1 entry) - Data Analytics Specialisation

Students may, with appro

@lropb	Vb^o lcmoldo^j ^ka pbjbpqbo fk tef`e `lropb fp klo j^iiv pqrafba						Bkoli jbkq obnrfobjbkqp
	Lk*`^jmrp %LK@&		Buqbok^i %BUQ&		Lkifkb %LKI&		
	Vb^o	Pbj	Vb^o	Pbj	Vb^o	Pbj	
		¬					requisite: CSC6002 and Students must be enrolled