



At a Glance

Master of Science
(Data Science & Analytics)
Coursework Mode

School of Computer Sciences
Universiti Sains Malaysia

www.cs.usm.my

Master of Science (Data Science & Analytics)

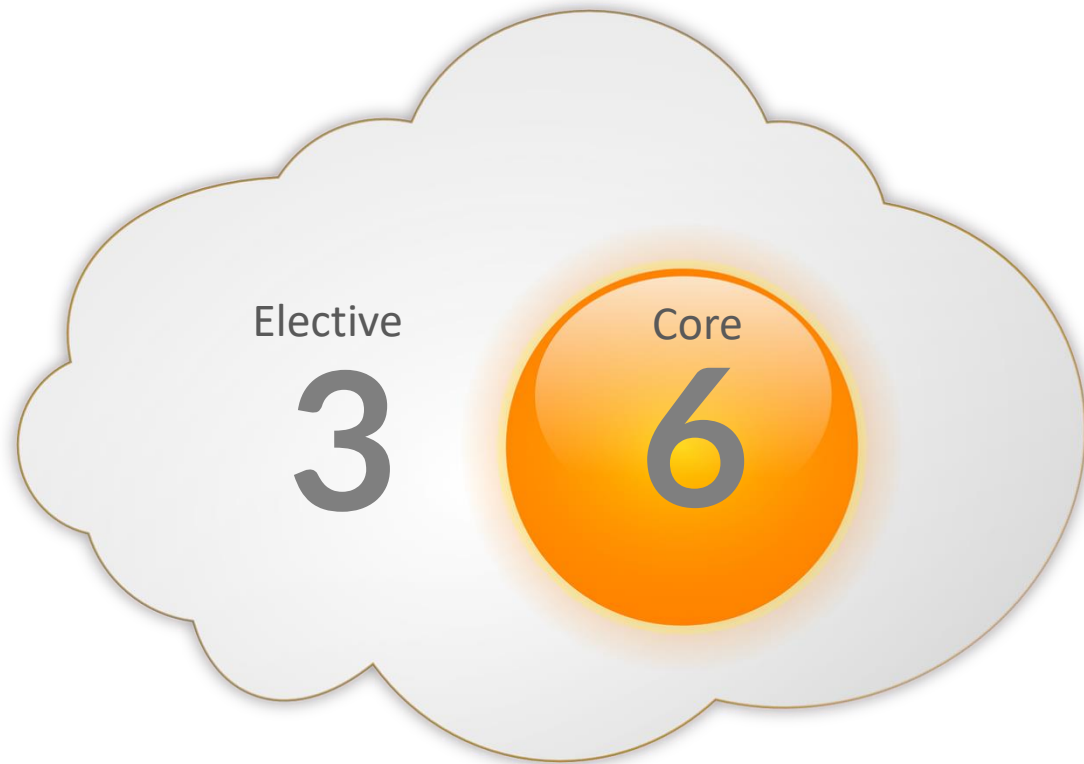


Programme Structure

10 courses

Taught courses

Project



Programme Structure

44 units

Taught courses

Project

8

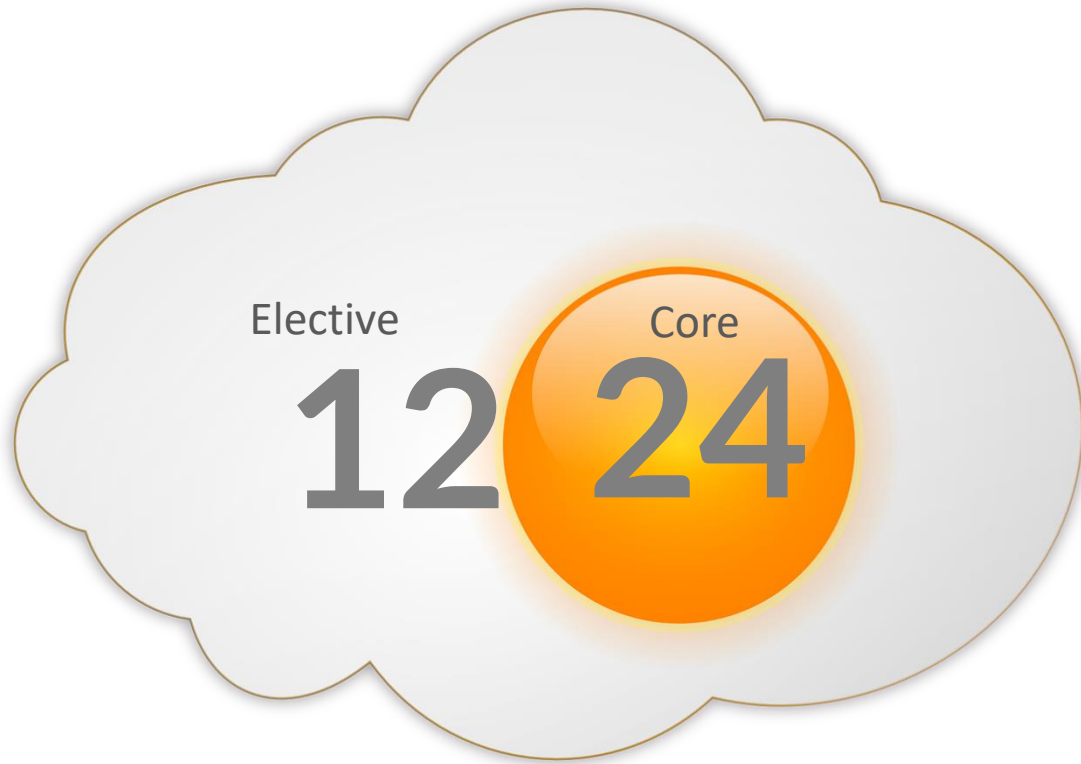


Elective

12

Core

24



Full-time Scheme

Minimum

18 months

Maximum

36 months

equivalent to

Minimum

3 semesters

Maximum

6 semesters

Core Courses



CODE	SUBJECT	Offering
CDS501/4	Principles and Practices of Data Science and Analytics	SEM 1 & 2
CDS502/4	Big Data Storage & Management	SEM 1
CDS503/4	Machine Learning	SEM 1 & 2
CDS504/4	Enabling Technologies & Infrastructure for Data Science	SEM 2
CDS505/4	Data Visualization & Visual Analytics	SEM 1
CDS506/4	Research, Consultancy & Professional Skills	SEM 1 & 2

CDS590 Consultancy Project & Practicum



- Pre-requisite course: CDS506
- Must be taken in two consecutive semesters
- Secure practicum workplace (at your respective workplaces or chosen/assigned organisations)
- Identify industry mentor & academic supervisor
- Identify use cases/problem to work on
- Real data

Focus Areas - Elective

**Business
Analytics**

**Multimodal
Analytics**

Elective Courses

Business Analytics

Code	Subject	Offering
CDS511/4	Consumers Behavioural & Social Media Analytics	SEM 1
CDS512/4	Business Intelligence and Decision Analytics	SEM 2
CDS513/4	Predictive Business Analytics	SEM 2

Multimodal Analytics

Code	Subject	Offering
CDS521/4	Multimodal Information Retrieval	SEM 2
CDS522/4	Text & Speech Analytics	SEM 1
CDS523/4	Forensic Analytics & Digital Investigations	SEM 2

Study Scheme: 1.5-year (Sep/Oct Intake)

(applicable to full-time study scheme only)

Course Type (Code) (Unit)	Sep/Oct Intake: 1.5 Years (3 Semesters)					
	Year I Sem I (Sep/Oct)	Unit	Year I Sem II (Feb/Mar/Apr)	Unit	Year II Sem I (Sep/Oct)	Unit
Core (T) (32 Unit)	CDS501	4	CDS504	4	CDS590+	8
	CDS502	4	CDS506+	4		
	CDS503	4				
	CDS505	4				
Elective (E) (12 Units)			Elective I	4	Elective III	4
			Elective II	4		
Total: 44 Units		16		16		12

+ Must be taken in two consecutive semesters, CDS506 followed by CDS590

Study Scheme: 2-year (Sep/Oct Intake)

(applicable to full-time study scheme only)

Course Type (Code) (Unit)	September Intake: 2 Years (4 Semesters)							
	Year I Semester I (September)	Unit	Year I Semester II (February)	Unit	Year II Semester I (September)	Unit	Year II Semester II (February)	Unit
Core (T) (20 Unit)	CDS501	4	CDS504	4	CDS505	4	CDS590 ⁺	8
	CDS502	4			CDS506 ⁺	4		
	CDS503	4						
Elective (E) (24 Units)			Elective I	4	Elective III*	4	Elective III*	4
			Elective II	4				
Total: 44 Units		12		12		8/12		8/12

⁺ Must be taken in two consecutive semesters, CDS506 followed by CDS590

* Alternative Semester

Study Scheme: 2.5-year (Sep/Oct Intake)

(applicable to full-time study scheme only)

Course Type (Code) (Unit)	September Intake: 2.5 Years (5 Semesters)									
	Year I Semester I (Sep)	Unit	Year I Semester II (Feb)	Unit	Year II Semester I (Sep)	Unit	Year II Semester II (Feb)	Unit	Year III Semester I (Sep)	Unit
Core (T) (20 Unit)	CDS501	4	CDS504	4	CDS502	4	CDS506 ⁺	4	CDS590 ⁺	8
	CDS503	4			CDS505	4				
Elective (E) (24 Units)			Elective I	4			Elective II	4	Elective III*	4
							Elective III*	4		
Total: 44 Units		8		8		8		8/12		8/12

+ Must be taken in two consecutive semesters, CDS506 followed by CDS590

* Alternative Semester

Study Scheme: 1.5-year (Feb/Mar/Apr Intake)

(applicable to full-time study scheme only)

Course Type (Code) (Unit)	Feb/Mar/Apr Intake: 1.5 Years (3 Semesters)					
	Year I Sem II (Feb/Mar/Apr)	Unit	Year I Sem I (Sep/Oct)	Unit	Year I Sem II (Feb/Mar/Apr)	Unit
Core (T) (20 Unit)	CDS501	4	CDS502	4	CDS590+	8
	CDS503	4	CDS505	4		
	CDS504	4	CDS506 +	4		
Elective (E) (24 Units)	Elective I	4	Elective II	4	Elective III	4
Total: 44 Units		16		16		12

+ Must be taken in two consecutive semesters, CDS506 followed by CDS590

Study Scheme: 2-year (Feb/Mar/Apr Intake)

(applicable to full-time study scheme only)

Course Type (Code) (Unit)	February Intake: 2 Years (4 Semesters)							
	Year I Semester II (February)	Unit	Year I Semester I (September)	Unit	Year II Semester II (February)	Unit	Year II Semester I (September)	Unit
Core (T) (20 Unit)	CDS501	4	CDS502	4	CDS506 ⁺	4	CDS590 ⁺	8
	CDS503	4	CDS505	4				
	CDS504	4						
Elective (E) (24 Units)			Elective I	4	Elective II	4	Elective III*	4
					Elective III*	4		
Total: 44 Units		12		12		8/12		8/12

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	Year I Semester II (Feb)	Unit	Year I Semester I (Sep)	Unit	Year II Semester II (Feb)	Unit	Year II Semester I (Sep)	Unit	Year III Semester II (Feb)	Unit
Core (T) (20 Unit)	CDS501	4	CDS502	4	CDS504	4	CDS506 ⁺	4	CDS590 ⁺	8
	CDS503	4	CDS505	4						
Elective (E) (24 Units)					Elective I	4	Elective II		Elective III*	4
							Elective III*	4		
Total: 44 Units		8		8		8		8/12		8/12

⁺ Must be taken in two consecutive semesters, CDS506 followed by CDS590

^{*} Alternative Semester

Evaluation

Type	Evaluation Components	Grades
Courses	<ul style="list-style-type: none">- coursework- final examination	C+ or better for a pass
Project & practicum	<ul style="list-style-type: none">- report & presentation	C+ or better for a pass

Graduation Requirement

6 Core Courses	24
1 Project & Practicum	8
3 Electives	12
Total	44 units

CGPA \geq 3.0

