## **MAJOR: Computing and Data Science (MJD-CDSCM) – Semester 1 start** 22 x Core units 2 x Research units (12 pts each)

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| **YEAR 1** | SEM 1 | **CITS1003: Introduction to Cybersecurity\*\*** | **CITS1401: Computational Thinking with Python\*\*** pre-req: ATAR Math Methods or MATH1721 | **PHIL1001: Ethics for the Digital Age: An Introduction to Moral Philosophy** | **ELECTIVE**Recommended MATH1722: Mathematics Foundations: Specialist\*\*pre-req: ATAR Math Applications or MATH1721 |
| SEM 2 | **CITS1402: Relational Database Management Systems\*\***pre-req: ATAR Math Applications or MATH1720 | **STAT1400: Statistics for Science\*\***pre-req: ATAR Math Applications or MATH1720 | **CITS2002: Systems Programming**pre-req: CITS1401 | **ELECTIVE**Recommended CITS2211: Discrete Structurespre-req: ATAR Math Methods or MATH1721AND CITS1401 |
| **YEAR 2** | SEM 1 | **CITS2005: Object Oriented Programming** pre-req: ATAR Math Methods or MATHS1721 AND CITS1401 | **CITS2200: Data Structures and Algorithms**pre-req: ATAR Math Methods or MATHS1721 AND CITS1401 | **STAT2401: Analysis of Experiments**pre-req: ATAR Math Applications or MATHS1720 | **CITS3002: Computer Networks**pre-req: CITS2002 |
| SEM 2 | **CITS3001: Advanced Algorithms**pre-req: CITS2200 | **CITS2402: Introduction to Data Science** pre-req: CITS1401 | **STAT2402: Analysis of Observations**pre-req: ATAR Math Applications or MATHS1720 | **ELECTIVE** |
|  **YEAR 3** | SEM 1 | **CITS3401: Data Warehousing**pre-req: CITS1402 AND 6pts of programming-based units | **CITS3403: Agile Web Development**pre-req: CITS1401 or CITS2002 | **STAT3401: Advanced Data Analysis**pre-req: STAT2401 AND STAT2402(OR STAT2062) | **ELECTIVE** |
| SEM 2 | **CITS3200: Professional Computing**pre-req: completed min. 84 points including CITS2002 or CITS2200 or CITS2402 | **STAT3064: Statistical Learning**pre-req: STAT2401 AND STAT2402(OR STAT2062) | **CITS5503: Cloud Computing**pre-req: 12pts of programming-based units | **ELECTIVE** |
| **YEAR 4** | SEM 1 | **CITS4010: Computer Science Honours Research Project Part 1**pre-req: completed min. 120 pts | **STAT4062: Statistical Modelling and Inference**pre-req: STAT3401 or STAT3062ANDSTAT3064 | **CITS5508: Machine Learning**pre-req: CITS1401 |
| SEM 2 | **CITS4011: Computer Science Honours Research Project Part 2**pre-req: CITS4010 | **STAT4066: Bayesian Computing and Statistics**pre-req: STAT2401 AND STAT2402(OR STAT2062) | **ELECTIVE** |

\*\* Unit is available in Semester 1 and Semester 2
**Note -**

* MJD-CDSCM Computing and Data Science major overview and unit details can be found here: <https://handbooks.uwa.edu.au/majordetails?code=MJD-CDSDM#units>
* Course details are in the Handbook. For example: Bachelor of Science rules are here: <https://handbooks.uwa.edu.au/coursedetails?code=bp004#rules>
* Information about unit availability should be checked at the beginning of each semester and can be found at [timetable.uwa.edu.au](http://www.timetable.uwa.edu.au/) and [Handbooks](https://handbooks.uwa.edu.au/)
* Plan ahead! Look at prerequisite requirements in the Handbook. For example: Level 3 option unit STAT3401 requires pre-requisite units STAT2401 AND STAT2402 (OR STAT2062)

## **MAJOR: Computing and Data Science (MJD-CDSCM) – Semester 2 start** 22 x Core units 2 x Research units (12 pts each)

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| **YEAR 1** | SEM 2 | **CITS1003: Introduction to Cybersecurity\*\*** | **CITS1401: Computational Thinking with Python\*\*** pre-req: ATAR Math Methods or MATH1721 | **STAT1400: Statistics for Science\*\***pre-req: ATAR Math Applications or MATH1720 | **ELECTIVE**Recommended MATH1722: Mathematics Foundations: Specialist\*\*pre-req: ATAR Math Applications or MATH1721 |
| **YEAR 2** | SEM 1 | **CITS1402: Relational Database Management Systems\*\***pre-req: ATAR Math Applications or MATH1720 | **PHIL1001: Ethics for the Digital Age: An Introduction to Moral Philosophy** | **STAT2401: Analysis of Experiments**pre-req: ATAR Math Applications or MATHS1720 | **CITS2200: Data Structures and Algorithms**pre-req: ATAR Math Methods or MATHS1721 AND CITS1401 |
| SEM 2 | **CITS2002: Systems Programming**pre-req: CITS1401 | **CITS2402: Introduction to Data Science** pre-req: CITS1401 | **STAT2402: Analysis of Observations**pre-req: ATAR Math Applications or MATHS1720 | **ELECTIVE**Recommended CITS2211: Discrete Structurespre-req: ATAR Math Methods or MATH1721AND CITS1401 |
|  **YEAR 3** | SEM 1 | **CITS2005: Object Oriented Programming** pre-req: ATAR Math Methods or MATHS1721 AND CITS1401 | **CITS3002: Computer Networks**pre-req: CITS2002 | **STAT3401: Advanced Data Analysis**pre-req: STAT2401 AND STAT2402(OR STAT2062) | **ELECTIVE** |
| SEM 2 | **CITS3001: Advanced Algorithms**pre-req: CITS2200 | **CITS3200: Professional Computing**pre-req: completed min. 84 points including CITS2002 or CITS2200 or CITS2402 | **STAT3064: Statistical Learning**pre-req: STAT2401 AND STAT2402(OR STAT2062) | **ELECTIVE** |
| **YEAR 4** | SEM 1 | **CITS3401: Data Warehousing**pre-req: CITS1402 AND 6pts of programming-based units | **CITS3403: Agile Web Development**pre-req: CITS1401 or CITS2002 | **CITS5508: Machine Learning**pre-req: CITS1401 | **ELECTIVE** |
| SEM 2 | **CITS4010: Computer Science Honours Research Project Part 1**pre-req: completed min. 120 pts | **STAT4066: Bayesian Computing and Statistics**pre-req: STAT2401 AND STAT2402(OR STAT2062) | **CITS5503: Cloud Computing**pre-req: 12pts of programming-based units |
| **YEAR 5** | SEM 1 | **CITS4011: Computer Science Honours Research Project Part 2**pre-req: CITS4010 | **STAT4062: Statistical Modelling and Inference**pre-req: STAT3401 or STAT3062ANDSTAT3064 | **ELECTIVE** |

\*\* Unit is available in Semester 1 and Semester 2
**Note -**

* MJD-CDSCM Computing and Data Science major overview and unit details can be found here: <https://handbooks.uwa.edu.au/majordetails?code=MJD-CDSDM#units>
* Course details are in the Handbook. For example: Bachelor of Science rules are here: <https://handbooks.uwa.edu.au/coursedetails?code=bp004#rules>
* Information about unit availability should be checked at the beginning of each semester and can be found at [timetable.uwa.edu.au](http://www.timetable.uwa.edu.au/) and [Handbooks](https://handbooks.uwa.edu.au/)
* Plan ahead! Look at prerequisite requirements in the Handbook. For example: Level 3 option unit STAT3401 requires pre-requisite units STAT2401 AND STAT2402 (OR STAT2062)

# Choose a degree-specific major

# Make sure your study plan includes:

You must complete at least one degree-specific major. Make sure you include core units and option units.

# Include foundation units (if applicable)

You must complete any foundation units required for your degree. Foundation units are compulsory, regardless of your choice of degree-specific major. Check your course rules to see if foundational units are required for your course.
Bachelor of Advanced Computer Science does not have foundation units.

# Include bridging units (if applicable)

You may be required to complete bridging units if you have not completed the pre-requisite ATAR-level study (or equivalent qualification) for your major/s.

# Choose a second major or minor (optional)

You can complete a second major or minor from any degree area as long as you meet the prerequisites. It is not compulsory to choose a second major or minor, but specialising in a second discipline will add to your qualification and employment prospects.
<handbooks.uwa.edu.au/search/?type=majors><handbooks.uwa.edu.au/search/?type=minors>

# Choose electives

Once you’ve included all the units for your majors, minors, foundational units, bridging units and broadening requirements you may have space for electives. Electives can be chosen from any units offered in your course, subject to unit rules. View the list: <handbooks.uwa.edu.au/undergraduate/electives>

* + a total of 32 units
	+ **no more** than **12 Level 1** units (72 credit points)
	+ **at least 12** units at **Level 2 and Level 3** (72 credit points)
	+ including **at least 3 units** at **Level 3** (18 credit points)
	+ at least **4 units outside** your **degree-specific major** (24 credit points)

This is based on the Bachelor of Advanced Computer Science Honours (BH008) four-year degree. Students in a combined-degree should refer to their program’s course rules.

Full details of course structure and rules can be found in the Handbook:

<handbooks.uwa.edu.au/undergraduate>

**TIP:** Level 1 electives can be taken at any time during your degree as long as you do not exceed the maximum Level 1 limit. Similarly, Level 3 units can be taken earlier in your degree, so long as you meet unit prerequisites.

# Enrol on studentConnect and plan your timetable on the Class Allocation System

* studentConnect: <student.uwa.edu.au/course/studentconnect>
* Class Allocation System (CAS): <cas.uwa.edu.au>

**HELP!**Refer to the UniStart website for your step-by-step guide on planning your enrolment: <uwa.edu.au/unistart> For other questions find ‘FAQs’ and ‘Email Us’ in askUWA: [ask.uwa.edu.au](https://ipoint.uwa.edu.au/)

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A standard full-time study load is four units per semester. All units have a value of six points unless otherwise stated. To check that you’re on track to meet your course requirements use the My Course Study Plan Checklist or get your study plan checked by a student advisor in your assigned Student Advising Office (displayed on studentConnect). First-year students who are unsure which major/s they want to study are advised to fill out the My First Year Study Plan & Checklist. Information in this study plan is correct at the time of publication and is subject to change from time to time. The University reserves the right to change the unit availability and unit rules, please refer to the Handbook each semester.