

My Course Study Plan Checklist

[CM040] Bachelor of Science (Frontier Physics) and Master of Physics - Medical Physics

15 x Frontier Physics Core Units
 9 x Elective units
 6 x Master of Physics Research Units
 5 x Medical Physics core units
 1 x Medical Physics option unit

YEAR 1	SEM 1	PHYS1100: Classical and Frontier Physics pre-req: ATAR Physics or PHYS1030 AND ATAR Maths Specialist or MATH1722	MATH1011: Multivariable Calculus** pre-req: ATAR Maths Specialist or MATH1722	CITS1401: Computational Thinking with Python** pre-req: ATAR Maths Methods or MATH1721	LEVEL 1 ELECTIVE
	SEM 2	PHYS1200: Modern and Frontier Physics pre-req: PHYS1100	MATH1012: Mathematical Theory & Methods** pre-req: ATAR Maths Specialist or MATH1722	Level 1 ELECTIVE	LEVEL 1 ELECTIVE
YEAR 2	SEM 1	PHYS2001: Quantum Physics and Electromagnetism pre-req: PHYS1100, PHYS1200 AND MATH1011 co-req: MATH1012	PHYS2100: Stellar Astrophysics & Frontier Astronomy pre-req: PHYS1100, PHYS1200, MATH1011 AND MATH1012 co-req: PHYS2001 AND MATH2501	MATH2501: Advanced Mathematical Methods pre-req: MATH1011 co-req: MATH1012	LEVEL 2/3 ELECTIVE
	SEM 2	PHYS2002: Many Particle Systems pre-req: PHYS1100, PHYS1200 AND MATH1011	PHYS3100: Electrodynamics, Special and General Relativity pre-req: PHYS1100, PHYS2001 AND MATH2501 co-req: PHYS3011	PHYS3011: Mathematical Physics pre-req: PHYS2001 AND MATH2501 co-req: PHYS2002	LEVEL 2/3 ELECTIVE
YEAR 3	SEM 1	PHYS3001: Quantum Mechanics pre-req: PHYS2001 AND MATH2501	LEVEL 2/3 ELECTIVE	LEVEL 2/3 ELECTIVE	LEVEL 2/3 ELECTIVE
	SEM 2	PHYS3012: Topic in Contemporary Physics pre-req: PHYS2001, PHYS2002 AND MATH2501	PHYS3006 Atomic and Nuclear Physics pre-req: PHYS3001	MATH2032: Complex and Fourier Analysis pre-req: MATH1011 & MATH1012	LEVEL 2/3 ELECTIVE
YEAR 4	SEM 1	PHYS5401: Medical Imaging Physics	PHYS5404: Radiation Physics and Dosimetry	PHYS5435: Research Proposal in Medical Physics**	Medical Physics Option Unit
	SEM 2	PHYS5402: Radiation Biology and Protection	PHYS5403: Radiotherapy Physics	ANHB5415: Anatomy and Biology for Medical Physicists**	PHYS5301: Physics Research Project Part 1**
YEAR 5	SEM 1	PHYS5302: Physics Research Project Part 2**	PHYS5303: Physics Research Project Part 3**	PHYS5304: Physics Research Project Part 4** Co-req: PHYS5436	PHYS5436: Dissertation in Medical Physics**

** Unit is available in Semester 1 and Semester 2

Note –

- CM040 Bachelor of Science Frontier Physics and Master of Physics – Medical Physics overview and rules can be found here: <https://handbooks.uwa.edu.au/coursedetails?code=CM040#course-overview>
- Information about unit availability should be checked at the beginning of each semester and can be found at timetable.uwa.edu.au and [Handbooks](#)
- Plan ahead! Look at pre-requisite requirements in the Handbook. For example: PHYS1200: Modern and Frontier Physics requires pre-req: PHYS1100

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Choose a degree-specific major

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.

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 minor (optional)

You can complete a minor from any degree area as long as you meet the prerequisites. It is not compulsory to choose a 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

Make sure your study plan includes:

- a total of **36 units** (216 credit points)
- no more than 10 Level 1** units (60 credit points)
- at least 10 units at Level 2 and Level 3** (60 credit points)
- including **at least 6 units at Level 3** (36 credit points)
- a postgraduate component, including **at least 12 units** (72 credit points) completed at **Level 4 and Level 5**.

<https://handbooks.uwa.edu.au/coursedetails?code=CM040#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

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.

My Course Study Plan Checklist



Four relevant minors:

- **Data Science minor (MNR-DATSC)**

YEAR 1	SEM 1				STAT1400: Statistics for Science (S1, S2)
	SEM 2			Level 1 ELECTIVE	LEVEL 1 ELECTIVE
YEAR 2	SEM 1				LEVEL 2/3 ELECTIVE
	SEM 2				CITS2402: Introduction to Data Science (S2)
YEAR 3	SEM 1		STAT2401: Analysis of Observations (S1) or STAT2402 (S2)	LEVEL 2/3 ELECTIVE	LEVEL 2/3 ELECTIVE
	SEM 2				LEVEL 2/3 ELECTIVE

- **Applied Statistical Learning minor (MNR-ASTAT)**

YEAR 1	SEM 1				STAT1400: Statistics for Science (S1, S2)
	SEM 2			Level 1 ELECTIVE	LEVEL 1 ELECTIVE
YEAR 2	SEM 1				STAT2401: Analysis of Experiments (S1)
	SEM 2				STAT2402: Analysis of Observations (S2)
YEAR 3	SEM 1		STAT3406: Applied Statistics and Data Visualisation (S1)	LEVEL 2/3 ELECTIVE	LEVEL 2/3 ELECTIVE
	SEM 2				LEVEL 2/3 ELECTIVE

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○ Anatomical Sciences minor (MNR-ANSCI)

YEAR 1	SEM 1				LEVEL 1 ELECTIVE
	SEM 2			ANHB1102: Human Biology II, Being Human (S2)	LEVEL 1 ELECTIVE
YEAR 2	SEM 1				ANHB2212: Human Structure and Development, (S1)
	SEM 2				ANHB2214: Human Organs and Systems (S2)
YEAR 3	SEM 1		LEVEL 2/3 ELECTIVE	LEVEL 2/3 ELECTIVE	LEVEL 2/3 ELECTIVE
	SEM 2				ANHB3331: Human Structure and Function – Limbs, (S2)

○ Human Systems Physiology minor (MNR-ORGPB)

YEAR 1	SEM 1				PHYL1001: Physiology - How your body works, (S1)
	SEM 2			Level 1 ELECTIVE	LEVEL 1 ELECTIVE
YEAR 2	SEM 1				SSEH2260: Exercise Physiology (S1)
	SEM 2				LEVEL 2/3 ELECTIVE
YEAR 3	SEM 1		PHYL3002: Clinical Physiology (S1)	LEVEL 2/3 ELECTIVE	LEVEL 2/3 ELECTIVE
	SEM 2				PHYL3004: Extreme Environmental Physiology (S2)

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List of Recommended Elective Units; Study Sharp Strategy



Level 1	
Unit Name	Unit Code
Statistics for Science (S1/S2)	STAT1400
Human Biology I: Becoming Human (S1)	ANHB1101
Human Biology II: Being Human (S2)	ANHB1102
Molecular Biology of the Cell (S2)	SCIE1106
The Musculoskeletal System and Movement (S1)	SSEH1101
Physiology - How your body works (S1)	PHYL1001
Relational Database Management Systems (S1/S2)	CITS1402
Introductory Cellular Biochemistry (S2)	BIOC1001
Chemistry - Structure and Reactivity (S1/S2)	CHEM1002
Frontiers in Biology (S1)	BIOL1130
Professional and Academic Communications (S1/S2)	PACM1100
Introduction to Law (S1)	LAWS1104
Level 2	
Unit Name	Unit Code
Analysis of Experiments (S1)	STAT2401
Analysis of Observations (S2)	STAT2402
Probabilistic Methods and their Applications (S1)	STAT2063
Fundamentals of Probability with Applications (S2)	STAT2062
Introduction to Data Science (S2)	CITS2402
Computer Analysis and Visualisation (S1/S2)	CITS2401
Systems Programming (S2)	CITS2002
Human Organs and Systems (S2)	ANHB2214
Exercise Physiology (S1)	SSEH2260
Molecular Genetics I (S2)	GENE2230
Principles of Inheritance (S1)	GENE2250
Foundations of Pharmacology (S1)	PHAR2210
Human Pharmacology (S2)	PHAR2220
Physiology of Cells (S2)	PHYL2002

Level 2	
Unit Name	Unit Code
Introduction to Infectious Diseases and Immunology (S2)	MICR2209
Physics for Electrical Engineers (S1)	PHYS2003
Human Pharmacology (S2)	PHAR2220
Physiology of Cells (S2)	PHYL2002
Introduction to Infectious Diseases and Immunology (S2)	MICR2209
Microeconomics: Policy and Applications (S1)	ECON2233
Level 3	
Unit Name	Unit Code
Applied Statistics and Data Visualisation (S1)	STAT3406
Advanced Data Analysis (S2)	STAT3401
Statistical Science (S1)	STAT3062
Quantum Computation (S1)	PHYS3005
Human Structure and Function (S2)	ANHB3324
Physiology of Cardiovascular and Respiratory Systems (S1)	PHYL3002
Physiology of Integrated Organ Function (S2)	PHYL3004
Molecular Genetics II (S2)	GENE3340
Genomics (S1)	GENE3370
Medical Genetics (S1)	PATH3305
Molecular Pharmacology (S1)	PHAR3310
Systems Pharmacology (S2)	PHAR3320
Immunobiology and Immune Diseases (S1)	MICR3305
Scientific and Industrial Modelling (S2)	MATH3022
Health Economics (S2)	ECON3205
Scientific and Industrial Modelling (S2)	MATH3022
Health Economics (S2)	ECON3205
Circuits and Electronics (S1)	ELEC3021