## **[CM015] Bachelor of Science (Frontier Physics) and Master of Physics - Theoretical Physics (SP-THEPH)** 15 x Frontier Physics Core Units 5 x Elective units 6 x Master of Physics Research Units 2 x Theoretical Physics core units 4 x Theoretical Physics option units

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| **YEAR 1 2025** | 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 2026** | 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, PHYS2001AND MATH2501 co-req: PHYS3011 | **PHYS3011: Mathematical Physics**  pre-req: PHYS2001 AND MATH2501  co-req: PHYS2002 | **LEVEL 2/3 ELECTIVE** |
| **YEAR 3 2027** | SEM 1 | **PHYS3001: Quantum Mechanics** pre-req: PHYS2001 AND MATH2501 | **MATH2032: Complex and Fourier Analysis**  pre-req: MATH1011 & MATH1012 | **THEORETICAL PHYSICS OPTION UNIT** | **PHYS5015: Research Proposal in Theoretical Physics\*\*** |
| SEM 2 | **PHYS3012: Topic in Contemporary Physics** pre-req: PHYS2001, PHYS2002  AND MATH2501 | **PHYS3006 Atomic and Nuclear Physics**  pre-req: PHYS3001 | **THEORETICAL PHYSICS OPTION UNIT** | **PHYS5301: Physics Research Project Part 1\*\*** |
| **YEAR 4 2028** | SEM 1 | **PHYS4010: Symmetry Principles in Physics** | **THEORETICAL PHYSICS OPTION UNIT** | **PHYS5302: Physics Research Project Part 2\*\*** | **PHYS5303: Physics Research Project Part 3\*\*** |
| SEM 2 | **PHYS5010: Differential Geometry and General Relativity**  pre-req: PHYS3011 | **THEORETICAL PHYSICS OPTION UNIT** | **PHYS5304: Physics Research Project Part 4\*\*** | **PHYS5016: Dissertation in Theoretical Physics\*\*** |

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

**Note –**

* CM040 Bachelor of Science Frontier Physics and Master of Physics – overview and rules can be found here: <https://handbooks.uwa.edu.au/coursedetails?code=cm015>
* Master of Physics coursework and dissertation overview, specialisations and rules can be found here: <https://handbooks.uwa.edu.au/coursedetails?code=53560>
* 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 pre-requisite requirements in the Handbook. For example: PHYS1200: Modern and Frontier Physics requires pre-req: PHYS1100

# Make sure your study plan includes:

# 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](file:///C:\Users\00116084\AppData\Local\Microsoft\Olk\Attachments\ooa-210e56df-ae95-4f47-862c-f02a491bc67d\19d6153ebebffa29ed976f55182b85ff2620e1e7862a940a927409269c36d45c\handbooks.uwa.edu.au\search\?type=majors)[handbooks.uwa.edu.au/search/?type=minors](file:///C:\Users\00116084\AppData\Local\Microsoft\Olk\Attachments\ooa-210e56df-ae95-4f47-862c-f02a491bc67d\19d6153ebebffa29ed976f55182b85ff2620e1e7862a940a927409269c36d45c\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](file:///C:\Users\00116084\AppData\Local\Microsoft\Olk\Attachments\ooa-210e56df-ae95-4f47-862c-f02a491bc67d\19d6153ebebffa29ed976f55182b85ff2620e1e7862a940a927409269c36d45c\handbooks.uwa.edu.au\undergraduate\electives)

* + a total of **32 units** (192 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 3 units** at **Level 3** (18 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](file:///C:\Users\00116084\AppData\Local\Microsoft\Olk\Attachments\ooa-210e56df-ae95-4f47-862c-f02a491bc67d\19d6153ebebffa29ed976f55182b85ff2620e1e7862a940a927409269c36d45c\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](file:///C:\Users\00116084\AppData\Local\Microsoft\Olk\Attachments\ooa-210e56df-ae95-4f47-862c-f02a491bc67d\19d6153ebebffa29ed976f55182b85ff2620e1e7862a940a927409269c36d45c\student.uwa.edu.au\course\studentconnect)
* Class Allocation System (CAS): [cas.uwa.edu.au](file:///C:\Users\00116084\AppData\Local\Microsoft\Olk\Attachments\ooa-210e56df-ae95-4f47-862c-f02a491bc67d\19d6153ebebffa29ed976f55182b85ff2620e1e7862a940a927409269c36d45c\cas.uwa.edu.au)

**HELP!**Refer to the UniStart website for your step-by-step guide on planning your enrolment: [uwa.edu.au/unistart](file:///C:\Users\00116084\AppData\Local\Microsoft\Olk\Attachments\ooa-210e56df-ae95-4f47-862c-f02a491bc67d\19d6153ebebffa29ed976f55182b85ff2620e1e7862a940a927409269c36d45c\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.