

# Course progression map for 2019 commencing students

This progression map provides advice on the suitable sequencing of units and guidance on how to plan unit enrolment for each semester of study. It does not substitute for the list of required units as described in the course 'Requirements' section of the Handbook.

## **P3002** Bachelor of Pharmaceutical Science Advanced (Honours)

## **Specialisation - Drug discovery biology**

Year 1 Semester 1	BPS1011  Human physiology I: Cells to systems	BPS1021  Medicinal chemistry I:  Structure	BPS1031 Physical chemistry I: Equilibria & change	BPS1041 Scientific Inquiry
Year 1 Semester 2	BPS1012 Human physiology II: Body systems	BPS1022  Medicinal chemistry II: Reactivity and biomolecules	BPS1032 Physical chemistry II: Solutions, surfaces and solids	BPS1042 Pharmaceutical science in context
Year 2 Semester 1	BPS2011 Pharmacology I: Biochemical signalling	BPS2021 Synthetic chemistry I	BPS2031 Analytical methods I: Principles and applications	BPS2041 Drug delivery: Absorption pathways
Year 2 Semester 2	BPS2012 Pharmacology II: Drug action	BPS2022 Drug discovery and design	BPS2032 Analytical methods II: Investigation design	BPS2042 Drug development
Year 3 Semester 1	BPS3111  Pharmacology III: Advanced concepts	BPS3121  Disease-focused pharmacology - Peripheral	BPS3131 Microbiology & Immunology	<ul> <li>Elective unit- Choose one of:</li> <li>BPS3211 Computational drug design</li> <li>BPS3321 Biotechnology products</li> <li>BPS3311 Applied pharmacokinetics and pharmacodynamics</li> <li>BPS3711 Analysis of drug-receptor interactions</li> </ul>
Year 3 Semester 2	BPS3412  Drug Discovery Biology pre Honours research project (12 credit points)		BPS3122 Disease-focused pharmacology – CNS	BPS3132 Toxicology
Year 4 Semester 1	Choose one of:  PSC4111 Advanced medicinal chemistry (12 points)  PSC4211 Advanced formulation science (12 points)  PSC4311 Advanced drug discovery biology (12 points)			
Year 4 Semester 2	Based on the first semester, choose one of:  PSC4112 Research in medicinal chemistry (36 points)  PSC4212 Research in formulation science (36 points)  PSC4312 Research in drug discovery biology (36 points)			

Α	Foundational science studies
В	Pharmaceutical science studies
С	Honours research program

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Source: Monash University 2019 Handbook – <a href="http://www.monash.edu.au/pubs/2019handbooks/maps/map-p3002.pdf">http://www.monash.edu.au/pubs/2019handbooks/maps/map-p3002.pdf</a> CRICOS Provider Number: 00008C

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## **P3002** Bachelor of Pharmaceutical Science Advanced (Honours)

### **Specialisation - Medicinal chemistry**

Year 1	BPS1011	BPS1021	BPS1031	BPS1041
Semester 1	Human physiology I: Cells to systems	Medicinal chemistry I: Structure	Physical chemistry I: Equilibria & change	Scientific Inquiry
Year 1 Semester 2	BPS1012 Human physiology II: Body systems	Medicinal chemistry II: Reactivity and biomolecules	Physical chemistry II: Solutions, surfaces and solids	BPS1042 Pharmaceutical science in context
Year 2 Semester 1	BPS2011 Pharmacology I: Biochemical signalling	BPS2021 Synthetic chemistry I: Structure and Reactivity	BPS2031  Analytical methods I:  Principles and applications	BPS2041  Drug delivery: Absorption pathways
Year 2 Semester 2	BPS2012 Pharmacology II: Drug action	BPS2022 Drug Discovery and Design	BPS2032 Analytical methods II: Investigation design	BPS2042 Drug Development
Year 3 Semester 1	BPS3211 Computational drug design	BPS3221 Synthetic chemistry II: Emerging methods	BPS3231 Advanced experimental spectroscopy	BPS3121 Disease-focused pharmacology – peripheral     BPS3131 Microbiology & immunology     BPS3321 Biotechnology products     BPS3711 Analysis of drugreceptor interactions
Year 3 Semester 2	BPS3512  Medicinal Chemistry pre honours research project (12 credit points)		BPS3222 Synthetic strategies for drug design	BPS3232  Molecular basis of drug action
Year 4 Semester 1	Choose one of:  PSC4111 Advanced medicinal chemistry (12 points)  PSC4211 Advanced formulation science (12 points)  PSC4311 Advanced drug discovery biology (12 points)			
Year 4 Semester 2	Based on the first semester, choose one of:  PSC4112 Research in medicinal chemistry (36 points)  PSC4212 Research in formulation science (36 points)  PSC4312 Research in drug discovery biology (36 points)			

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### P3002 Bachelor of Pharmaceutical Science Advanced (Honours)

### **Specialisation - Formulation science**

Year 1	BPS1011	BPS1021	BPS1031	BPS1041
Semester 1		Medicinal chemistry I: Structure	Physical chemistry I: Equilibria & change	Scientific Inquiry
Year 1 Semester 2	Human physiology II: Body systems		BPS1032 Physical chemistry II: Solutions, surfaces and solids	BPS1042 Pharmaceutical science in context
Year 2	BPS2011	BPS2021	BPS2031	BPS2041
Semester 1	<u> </u>	Synthetic chemistry I: Structure and Reactivity	Analytical methods I: Principles and applications	Drug delivery: Absorption pathways
Year 2	BPS2012	BPS2022	BPS2032	BPS2042
Semester 2	Pharmacology II: Drug action	Drug Discovery and Design	Analytical methods II: Investigation design	Drug Development
Year 3 Semester 1	BPS3311 Applied pharmacokinetics and pharmacodynamics	BPS3321 Biotechnology products	BPS3331 Pharmaceutical product development and manufacture	BPS3121 Disease-focused pharmacology – peripheral     BPS3131 Microbiology & immunology     BPS3211 Computational Drug Design     BPS3711 Analysis of drugreceptor interactions
Year 3 Semester 2	BPS3612 Industry-linked research project (incorporating a placement) (12 credit points)		BPS3322 Drug delivery nanotechnology	BPS3332 Industrial formulation
Year 4 Semester 1	Choose one of:  PSC4111 Advanced medicinal chemistry (12 points)  PSC4211 Advanced formulation science (12 points)  PSC4311 Advanced drug discovery biology (12 points)			
Year 4	Based on the first semester, choose one of:  PSC4112 Research in medicinal chemistry (36 points)  PSC4212 Research in formulation science (36 points)  PSC4312 Research in drug discovery biology (36 points)			

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