BIOMEDICAL SCIENCE, TESTAMUR MAJOR (T086)

Western Sydney University Major Code: T086

Previous code: MT3030.1

Available to students in other Western Sydney University programs? No

This testamur major is available as an elective major for Bachelor of Science students only.

Biomedical science is a broad field that aims to understand the biology that underpins human health and disease. The coursework in this major will give you an integrated foundation in physiology and anatomy, along with biochemistry, cell biology and genetics. It will equip you with knowledge from which you can embark on unlimited career choices from research laboratories to hospital pathology to biomedical engineering, medical technology, teaching and beyond. The degree also allows for enrolment in minors or flexible subjects, so students can design their own learning journey.

All students must complete 60 credit points of study at Level 3 to meet program requirements.

NOTE: Students up to end of 2023 - Students will need to select at least 10 credit points of elective study at Level 3 to meet this requirement.

Location

Campus	Mode	Advice
Campbelltown Campus	Internal	science@westernsydney.edu.au
Parramatta Campus - Victoria Road	Internal	science@westernsydney.edu.au

Recommended Sequence Current

All students must complete 60 credit points of study at Level 3 to meet course requirements. Students will need to select at least 10 credit points of elective study at Level 3 to meet this requirement.

Select the link for your program below to see details of the major

Bachelor of Medical Science

Qualification for the award of Bachelor of Medical Science with a major in Biomedical Science requires the successful completion of 240 credit points as per the recommended sequence below.

Course	Title	Credit Points
Year 1		
Autumn session		
NATS 1019	Scientific Literacy	10
CHEM 1008	Introductory Chemistry	10
NATS 1009	Human Anatomy and Physiology 1	10
Choose one of the following:		10
MATH 1014	Mathematics 1A	
MATH 1026	Quantitative Thinking	
MATH 1003	Biometry	
	Credit Points	**40**
Spring session		
BIOS 1012	Cell Biology	10
CHEM 1012	Essential Chemistry	10
NATS 1010	Human Anatomy and Physiology 2	10
Choose one elective		10
	Credit Points	**40**
Year 2		
Autumn session		
BIOS 2042	Biochemistry	10
BIOS 2018	Genetics	10
NATS 2033	Cell Form and Function	10
Choose one elective		10
	Credit Points	**40**
Spring session		
BIOS 3027	Molecular Biology of the Cell	10
BIOS 3038	Metabolism	10
Choose one of		10
NATS 3044	Complex Case Studies in Science	
NATS 3045	Work Internship for Science Professionals	
Choose one elective		10
	Credit Points	**40**
Year 3		
Autumn session		
BIOS 3014	Genes, Genomics and Human Health	10
Choose two electives		20
	Credit Points	**30**
Spring session		
NATS 3034	Molecular Medicine	10
Choose three electives		30
	Credit Points	**40**
1H session		
NATS 3055	Practicum 1	10
	Credit Points	**10**
	Total Credit Points	**240**

Bachelor of Advanced Medical Science

Qualification for the award of Bachelor of Advanced Medical Science with a major in Biomedical Science requires the successful completion of 240 credit points as per the recommended sequence below.

Course	Title	Credit Points
Year 1		
Autumn session		
NATS 1019	Scientific Literacy	10
CHEM 1008	Introductory Chemistry	10
NATS 1009	Human Anatomy and Physiology 1	10
Choose one of		10
MATH 1014	Mathematics 1A	
MATH 1026	Quantitative Thinking	
MATH 1003	Biometry	
	Credit Points	**40**
Spring session		
BIOS 1012	Cell Biology	10
CHEM 1012	Essential Chemistry	10
NATS 1010	Human Anatomy and Physiology 2	10
Choose one elective		10
	Credit Points	**40**
Year 2		
Autumn session		
BIOS 2042	Biochemistry	10

BIOS 2018	Genetics	10
NATS 2033	Cell Form and Function	10
NATS 2001	Advanced Science Project A	10
	Credit Points	**40**
Spring session		
BIOS 3027	Molecular Biology of the Cell	10
BIOS 3038	Metabolism	10
NATS 2002	Advanced Science Project B	10
Choose one of		10
NATS 3044	Complex Case Studies in Science	
NATS 3045	Work Internship for Science Professionals	
	Credit Points	**40**
Year 3		
Autumn session		
BIOS 3014	Genes, Genomics and Human Health	10
NATS 3043	Advanced Science Research Project C	10
Choose one elective		10
	Credit Points	**30**
Spring session		
NATS 3034	Molecular Medicine	10
NATS 3043	Advanced Science Research Project C	10
Choose two electives		20
	Credit Points	**40**
1H session		
NATS 3055	Practicum 1	10
	Credit Points	**10**
	Total Credit Points	**240**

Diploma in Science/Bachelor of Medical Science

Qualification for the award of Diploma in Science/Bachelor of Medical Science with a major in Biomedical Science requires the successful completion of 250 credit points as per the recommended sequence below.

Course	Title	Credit Points
Year 1		
College subjects		
Standard 3-term year		
Preparatory subject		
CHEM 0001	Chemistry (WSTC Prep)	10
And eight university level subjects as follows		
BIOS 1014	Cell Biology (WSTC)	10
CHEM 1013	Essential Chemistry (WSTC)	10
NATS 1020	Scientific Literacy (WSTC)	10
CHEM 1009	Introductory Chemistry (WSTC)	10
MATH 1027	Quantitative Thinking (WSTC)	10
NATS 1029	Human Anatomy and Physiology 1 (WSTC)	10
NATS 1030	Human Anatomy and Physiology 2 (WSTC)	10
And choose one elective		10
	Credit Points	**90**
Year 2		
Autumn session		
BIOS 2042	Biochemistry	10
BIOS 2018	Genetics	10
NATS 2033	Cell Form and Function	10
Choose one elective		10
	Credit Points	**40**
Spring session		
BIOS 3027	Molecular Biology of the Cell	10
BIOS 3038	Metabolism	10
Choose one of		10
NATS 3044	Complex Case Studies in Science	
NATS 3045	Work Internship for Science Professionals	
Choose one elective		10
	Credit Points	**40**
Year 3		
Autumn session		
BIOS 3014	Genes, Genomics and Human Health	10
Choose two electives		20
	Credit Points	**30**
Spring session		
NATS 3034	Molecular Medicine	10
Choose three electives		30
	Credit Points	**40**
1H session		
NATS 3055	Practicum 1	10
	Credit Points	**10**
	Total Credit Points	**250**

Bachelor of Science (Pathway to Teaching Primary/Secondary)

Qualification for the Bachelor of Science (Pathway to Teaching Primary/Secondary) with a major in Biomedical Science requires the successful completion of 240 credit points as per the recommended sequence for the Bachelor of Science with a major in Biomedical Science, given above.

In addition, all students must complete a mandatory 40 credit point minor in Education Studies. Students must choose one of:

Education Studies – Primary Teaching, Minor (0296) (https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/education-studies--primary-teaching-minor/)

Or

Education Studies - Secondary Teaching, Minor (0267) (https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/education-studies-secondary-teaching-minor/)

Students must meet this requirement by choosing subjects from the selected Education Studies minor as electives within their Bachelor of Science program.

Course	Title	Credit Points
Year 1		
Autumn session		
NATS 1019	Scientific Literacy	10
CHEM 1008	Introductory Chemistry	10
NATS 1009	Human Anatomy and Physiology 1	10
Choose one of		10
MATH 1014	Mathematics 1A	
MATH 1026	Quantitative Thinking	

MATH 1003	Biometry	
	Credit Points	**40**
Spring session		
BIOS 1012	Cell Biology	10
CHEM 1012	Essential Chemistry	10
NATS 1010	Human Anatomy and Physiology 2	10
Choose one elective		10
	Credit Points	**40**
Year 2		
Autumn session		
BIOS 2042	Biochemistry	10
BIOS 2018	Genetics	10
NATS 2033	Cell Form and Function	10
Choose one elective		10
	Credit Points	**40**
Spring session		
BIOS 3027	Molecular Biology of the Cell	10
BIOS 3038	Metabolism	10
Choose one of		10
NATS 3044	Complex Case Studies in Science	
NATS 3045	Work Internship for Science Professionals	
And one subject from chosen Education minor		10
	Credit Points	**40**
Year 3		
Autumn session		
BIOS 3014	Genes, Genomics and Human Health	10
And two subjects from chosen Education minor		20
	Credit Points	**30**
Spring session		
NATS 3034	Molecular Medicine	10
And one subject from chosen Education minor		10
Choose two electives		20
	Credit Points	**40**
1H session		
NATS 3055	Practicum 1	10
	Credit Points	**10**
	Total Credit Points	**240**

Recommended Sequence 2023

All students must complete 60 credit points of study at Level 3 to meet course requirements. Students will need to select at least 10 credit points of elective study at Level 3 to meet this requirement.

Select the link for your program below to see details of the major

Bachelor of Medical Science

Qualification for the award of Bachelor of Medical Science with a major in Biomedical Science requires the successful completion of 240 credit points as per the recommended sequence below.

Course	Title	Credit Points
Year 1		
Autumn session		
NATS 1019	Scientific Literacy	10
CHEM 1008	Introductory Chemistry	10
NATS 1009	Human Anatomy and Physiology 1	10
Choose one of the following:		10
MATH 1014	Mathematics 1A	
MATH 1026	Quantitative Thinking	
MATH 1003	Biometry	
	Credit Points	**40**
Spring session		
BIOS 1012	Cell Biology	10
CHEM 1012	Essential Chemistry	10
NATS 1010	Human Anatomy and Physiology 2	10
Choose one elective		10
	Credit Points	**40**
Year 2		
Autumn session		
BIOS 2042	Biochemistry	10
BIOS 2018	Genetics	10
NATS 2033	Cell Form and Function	10
Choose one elective		10
	Credit Points	**40**
Spring session		
BIOS 3027	Molecular Biology of the Cell	10
BIOS 2021	Metabolism	10
Choose one of		10
NATS 3044	Complex Case Studies in Science	
NATS 3045	Work Internship for Science Professionals	
Choose one elective		10
	Credit Points	**40**
Year 3		
Autumn session		
NATS 3040	Topics in Medical Science	10
BIOS 3014	Genes, Genomics and Human Health	10
Choose two electives		20
	Credit Points	**40**
Spring session		
NATS 3034	Molecular Medicine	10
Choose three electives		30
	Credit Points	**40**
	Total Credit Points	**240**

Bachelor of Advanced Medical Science

Qualification for the award of Bachelor of Advanced Medical Science with a major in Biomedical Science requires the successful completion of 240 credit points as per the recommended sequence below.

Course	Title	Credit Points
Year 1		
Autumn session		
NATS 1019	Scientific Literacy	10
CHEM 1008	Introductory Chemistry	10
NATS 1009	Human Anatomy and Physiology 1	10
Choose one of		10
MATH 1014	Mathematics 1A	
MATH 1026	Quantitative Thinking	
MATH 1003	Biometry	
	Credit Points	**40**
Spring session		
BIOS 1012	Cell Biology	10
CHEM 1012	Essential Chemistry	10

NATS 1010	Human Anatomy and Physiology 2	10
Choose one elective		10
	Credit Points	**40**
Year 2		
Autumn session		
BIOS 2042	Biochemistry	10
BIOS 2018	Genetics	10
NATS 2033	Cell Form and Function	10
NATS 2001	Advanced Science Project A	10
	Credit Points	**40**
Spring session		
BIOS 3027	Molecular Biology of the Cell	10
BIOS 2021	Metabolism	10
NATS 2002	Advanced Science Project B	10
Choose one of		10
NATS 3044	Complex Case Studies in Science	
NATS 3045	Work Internship for Science Professionals	
	Credit Points	**40**
Year 3		
Autumn session		
NATS 3040	Topics in Medical Science	10
BIOS 3014	Genes, Genomics and Human Health	10
NATS 3043	Advanced Science Research Project C	10
Choose one elective		10
	Credit Points	**40**
Spring session		
NATS 3034	Molecular Medicine	10
NATS 3043	Advanced Science Research Project C	10
Choose two electives		20
	Credit Points	**40**
	Total Credit Points	**240**

Diploma in Science/Bachelor of Medical Science

Qualification for the award of Diploma in Science/Bachelor of Medical Science with a major in Biomedical Science requires the successful completion of 250 credit points as per the recommended sequence below.

Course	Title	Credit Points
Year 1		
College subjects		
Standard 3-term year		
Preparatory subject		
CHEM 0001	Chemistry (WSTC Prep)	10
And eight university level subjects as follows		
BIOS 1014	Cell Biology (WSTC)	10
CHEM 1013	Essential Chemistry (WSTC)	10
NATS 1020	Scientific Literacy (WSTC)	10
CHEM 1009	Introductory Chemistry (WSTC)	10
MATH 1027	Quantitative Thinking (WSTC)	10
NATS 1009	Human Anatomy and Physiology 1	10
NATS 1010	Human Anatomy and Physiology 2	10
And choose one elective		10
	Credit Points	**90**
Year 2		
Autumn session		
BIOS 2042	Biochemistry	10
BIOS 2018	Genetics	10
NATS 2033	Cell Form and Function	10
Choose one elective		10
	Credit Points	**40**
Spring session		
BIOS 3027	Molecular Biology of the Cell	10
BIOS 2021	Metabolism	10
Choose one of		10
NATS 3044	Complex Case Studies in Science	
NATS 3045	Work Internship for Science Professionals	
Choose one elective		10
	Credit Points	**40**
Year 3		
Autumn session		
NATS 3040	Topics in Medical Science	10
BIOS 3014	Genes, Genomics and Human Health	10
Choose two electives		20
	Credit Points	**40**
Spring session		
NATS 3034	Molecular Medicine	10
Choose three electives		30
	Credit Points	**40**
	Total Credit Points	**250**

Bachelor of Science (Pathway to Teaching Primary/Secondary)

Qualification for the Bachelor of Science (Pathway to Teaching Primary/Secondary) with a major in Biomedical Science requires the successful completion of 240 credit points as per the recommended sequence for the Bachelor of Science with a major in Biomedical Science, given above.

Course	Title	Credit Points
Year 1		
Autumn session		
NATS 1019	Scientific Literacy	10
CHEM 1008	Introductory Chemistry	10
NATS 1009	Human Anatomy and Physiology 1	10
Choose one of		10
MATH 1014	Mathematics 1A	
MATH 1026	Quantitative Thinking	
MATH 1003	Biometry	
	Credit Points	**40**
Spring session		
BIOS 1012	Cell Biology	10
CHEM 1012	Essential Chemistry	10
NATS 1010	Human Anatomy and Physiology 2	10
Choose one elective		10
	Credit Points	**40**
Year 2		
Autumn session		
BIOS 2042	Biochemistry	10
BIOS 2018	Genetics	10

NATS 2033	Cell Form and Function	10
Choose one elective		10
	Credit Points	**40**
Spring session		
BIOS 3027	Molecular Biology of the Cell	10
BIOS 2021	Metabolism	10
Choose one of		10
NATS 3044	Complex Case Studies in Science	
NATS 3045	Work Internship for Science Professionals	
And one subject from chosen Education minor		10
	Credit Points	**40**
Year 3		
Autumn session		
NATS 3040	Topics in Medical Science	10
BIOS 3014	Genes, Genomics and Human Health	10
And two subjects from chosen Education minor		20
	Credit Points	**40**
Spring session		
NATS 3034	Molecular Medicine	10
And one subject from chosen Education minor		10
Choose two electives		20
	Credit Points	**40**
	Total Credit Points	**240**

In addition, all students must complete a mandatory 40 credit point minor in Education Studies. Students must choose one of:

Education Studies – Primary Teaching, Minor (0296) (https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/education-studies--primary-teaching-minor/)

Or

Education Studies - Secondary Teaching, Minor (0267) (https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/education-studies-secondary-teaching-minor/)

Students must meet this requirement by choosing subjects from the selected Education Studies minor as electives within their Bachelor of Science program.

Related Programs

Bachelor of Advanced Medical Science (3758) (https://hbook.westernsydney.edu.au/archives/2024-2025/programs/bachelor-advanced-medical-science/)

Bachelor of Medical Science (3755) (https://hbook.westernsydney.edu.au/archives/2024-2025/programs/bachelor-medical-science/)

Bachelor of Science (Pathway to Teaching Primary/Secondary) (3756) (https://hbook.westernsydney.edu.au/archives/2024-2025/programs/bachelor-science-pathway-teaching-primary-secondary/)

Diploma in Science/Bachelor of Medical Science (6042) (https://hbook.westernsydney.edu.au/archives/2024-2025/programs/diploma-science-bachelor-medical-science/)