



## UNSW Course Outline

# ANAT3411 Neuroanatomy - 2024

Published on the 28 Jan 2024

## General Course Information

**Course Code :** ANAT3411

**Year :** 2024

**Term :** Term 1

**Teaching Period :** T1

**Is a multi-term course? :** No

**Faculty :** Faculty of Medicine and Health

**Academic Unit :** School of Biomedical Sciences

**Delivery Mode :** In Person

**Delivery Format :** Standard

**Delivery Location :** Kensington

**Campus :** Sydney

**Study Level :** Undergraduate

**Units of Credit :** 6

### Useful Links

[Handbook Class Timetable](#)

## Course Details & Outcomes

### Course Description

Neuroanatomy is an advanced neuroscience course that provides students with an understanding of the development, structure, function and vascular supply of the spinal cord, brainstem and forebrain. By using a systems approach, you will acquire an in-depth knowledge of the neural structures and connections that underpin sensory processing and perception, reflexive

and voluntary motor control and the emergence of complex higher functions in the cerebral cortex such as language and emotions.

This comprehensive systems neuroscience course will equip you with skills directly applicable to research in neuroscience and pre-medical training.

## Course Aims

The aim of this course is to provide you with an understanding of the structural organisation and function of the human central nervous system in sufficient depth to form the basis for further clinical or research studies of the nervous system.

## Relationship to Other Courses

**Assistance with progression checking:**

If you are unsure how this course fits within your program, you can seek guidance on optimising your program structure from staff at the [Nucleus Student Hub](#).

- Progression plans for UNSW Medicine and Health programs can be found on the [UNSW Medicine & Health website](#).
- Progression plans for UNSW Science programs can be found on the [UNSW Science website](#).

## Course Learning Outcomes

Course Learning Outcomes
CLO1 : Describe the external and internal features of the spinal cord, brainstem and forebrain and their vascular supply.
CLO2 : Identify neural structures in neuroanatomical diagrams, images, illustrations, radiological images, and 3D models.
CLO3 : Correlate the neuroanatomical organisation of the central nervous system to its functions, including the processing of sensory inputs, control of motor outputs and emergence of higher brain functions.
CLO4 : Integrate knowledge of neuroanatomy with the disciplines of physiology, psychology, and pathology, to understand the relationships between structure, function and behaviour in the nervous system.
CLO5 : Correlate structural and functional knowledge of the central nervous system and its vascular supply with neurological presentations and deficits.

Course Learning Outcomes	Assessment Item
CLO1 : Describe the external and internal features of the spinal cord, brainstem and forebrain and their vascular supply.	<ul style="list-style-type: none"> <li>• Quiz</li> <li>• Spot Test 1</li> <li>• Spot test 2</li> <li>• Final Exam</li> </ul>
CLO2 : Identify neural structures in neuroanatomical diagrams, images, illustrations, radiological images, and 3D models.	<ul style="list-style-type: none"> <li>• Quiz</li> <li>• Spot Test 1</li> <li>• Spot test 2</li> <li>• Final Exam</li> </ul>
CLO3 : Correlate the neuroanatomical organisation of the central nervous system to its functions, including the processing of sensory inputs, control of motor outputs and emergence of higher brain functions.	<ul style="list-style-type: none"> <li>• Quiz</li> <li>• Spot Test 1</li> <li>• Spot test 2</li> <li>• Final Exam</li> </ul>
CLO4 : Integrate knowledge of neuroanatomy with the disciplines of physiology, psychology, and pathology, to understand the relationships between structure, function and behaviour in the nervous system.	<ul style="list-style-type: none"> <li>• Final Exam</li> </ul>
CLO5 : Correlate structural and functional knowledge of the central nervous system and its vascular supply with neurological presentations and deficits.	<ul style="list-style-type: none"> <li>• Final Exam</li> </ul>

## Learning and Teaching Technologies

Moodle - Learning Management System | Microsoft Teams | Echo 360

## Learning and Teaching in this course

All course materials and course announcements are provided on the course learning management system, Moodle (or Open Access).

By accessing and using the ICT resources provided by UNSW, you are agreeing to abide by the ['Acceptable Use of UNSW ICT Resources'](#) policy particularly on respect for intellectual property and copyright, legal and ethical use of ICT resources and security and privacy.

## STRATEGIES AND APPROACHES TO LEARNING

### 1. Learning and teaching activities

The course consists of 7 hours per week of instruction – 3 x 1hr lectures, 1 x 2hrs practical and 1 x 2hrs tutorial classes. The lectures will be delivered at the beginning of the week on Mondays and Tuesdays followed by a practical class on Wednesdays and a tutorial class on Fridays.

## **1.1 Lectures**

The lectures are designed to provide conceptual information and an overview of the content that will be the focus of the week's topic. It is advisable that students attend all lectures to achieve better learning outcomes and academic success. Lecture slides and notes will be uploaded to Moodle prior to the beginning of each lecture, 1 or 2 days earlier. All lectures will be streamed live (unless they fall on a public holiday) and recorded. The recording will be made available on Teams within hours of lecture completion. While it is our intention and expectation that the lectures will be recorded, please note that this cannot be guaranteed.

## **1.2. Practical classes**

The practical classes will be delivered in the Ian Jacobs (Bioscience) Building Anatomy Labs room 07. The practical classes complement the lectures, and involve active learning in a small group situation (15-20 students maximum), identifying key structures in 3D models, prosected specimens, and MRI images of the brain. A lab manual will also be made available that contains the learning objectives and activities for the practical classes. Every student is required to be involved in inquiry and take an active participation in the learning process under the guidance of their instructor.

## **1.3 Tutorial classes**

The tutorials will be delivered in room G06/07 of the Wallace Wurth Building by one of the lecturers /demonstrators of the course. The lab manual will contain all the learning objectives and activities for tutorial classes. Learning activities of tutorial classes may include activities with the computer software **BrainStorm** - an internet application designed for this course to help students consolidate their learning. Brainstorm is also available at any time outside of formal classes.

## **1.4 Independent study and self-directed learning activities**

There is not enough time in the lectures, practicals, and tutorials to develop a deep understanding of the concepts covered in the course. To achieve the learning outcomes and do well in the quizzes and other assessments, it is strongly advised to keep on top of the lectures and revise the material presented in the course on a regular basis. In addition to **Brainstorm**, the online resource that has been designed for this purpose, students may also want to do additional reading beyond the lecture materials. Relevant additional resources, including textbook chapters, will be mentioned in lectures and practical/tutorial classes. At the end of each practical and

tutorial class you will find a page with a series of questions untitled “**What have you learned? Can you answer these questions?**”. You should be able to answer these questions from the knowledge acquired during the lecture and classes. The answers will be made available on the course Moodle page.

### **1.5. Question forums**

Each week there will be a question forum on Teams for students to ask any topic related questions (any questions containing personal information please email the convenors directly). These forums are a place for students to submit questions and interact with other students by answering questions. These forums will be monitored by academic staff, but it is expected that students engage in the discussion and attempt to answer most questions posted.

During Flexi week (week 6), the 2 hrs of lecture on Tuesday will be replaced by an optional online revision session where questions can be raised with the course co-ordinators. There will also be an optional practical session on Wednesday from 1 to 3 pm for revision in the Anatomy Labs with the instructors of the course. There will be no tutorial in Flexi week. These revision classes are in preparation for Spot test 1 which will be on the Monday of the following week (week 7).

We encourage students to question, observe and share knowledge and experiences with their peers and teachers. We endeavour to make the material interesting to stimulate an enthusiasm for the fascinating subject matter that is covered in this course. Interaction and engagement are essential to facilitate learning.

## **2. Expectations of students**

### **2.1. Keeping up with the pace the course**

Students are reminded that UNSW recommends that a 6 units-of-credit course should involve about 150 hours of study and learning activities. The formal learning activities total approximately 50 hours throughout the term and students are expected (and strongly recommended) to do at least the same number of hours of additional study.

Neuroanatomy is a fascinating but challenging subject. Challenges include the 3-dimensional visualisation of the brain and its internal parts, the memorisation of name of structures and the understanding of difficult concepts of organisation and function. The pace of the course is fast and the content heavy. Therefore, it is critical to keep up with the pace of the course and not fall behind.

We strongly encourage the students to i) attend the online lectures live rather than just view the recordings offline, ii) attend the in-person practical and tutorial classes and arrive on time at the beginning of the class. Students **must ensure** that they have **viewed and studied the material in the lectures PRIOR** to attending the practical and tutorial classes.

## 2.2. Access to Anatomy Labs

To be allowed into the Anatomy Labs, students **must first complete** the *Orientation to Anatomy modules Part 1 & Part 2, or Part 3* unless they have already completed these modules for another or previous Anatomy course. The modules can be completed during Week 0 and are available on the Moodle Page of the course under the "Compulsory week 0 activity" tab. Students **must wear closed shoes and bring their own lab coats and safety goggles** to the labs. Masks are not compulsory.

### ETHICAL BEHAVIOUR IN ANATOMICAL PRACTICAL CLASS

In this course, you will be required to study human anatomical specimens. Each year, people donate their bodies to UNSW via a Bequeathal Program so that you and your colleagues can learn about the human body. The donations are provided through the extraordinary generosity of the public (our donors and their families). This is a special privilege afforded very few people. By law, responsibility to the donor and their family members, and as a matter of good ethical practice you must treat all human remains with great respect and care (see below). The University operates the Bequeathal Program under the Code of Practice noted below, which all students are required to adhere to.

Before starting this course, students **MUST** complete the online modules *Orientation to Anatomy modules Part 1 & Part 2, or Part 3* which can be found on the Moodle Page of the course under the "Compulsory week 0 activity" tab.

**Code of Practice:** The University recognises the magnitude of the contribution made by those who donate their bodies for the teaching of anatomy, and it is committed to treating the human remains entrusted to its care with the utmost respect and professionalism. In keeping with this commitment, the University requires its employees and students to uphold all legal, public health, and ethical standards associated with the handling of bodies and human tissue samples. Any activity which undermines its ability to meet UNSW's legislative obligations, or which devalues the contribution made by those who donate their bodies for the purposes of the teaching of anatomy to students will be in breach of this policy and subject to further action.

For those engaging in the online space (learning and teaching), the University considers that the Code of Practice remains relevant. The use of images of anatomical specimens should follow principles consistent with the Anatomy Act 1977 and/or Human Tissue Act 1983. When images are used online, these should never be identifiable, caricatured and shared for any purpose other than educational; and should not be published on social media platforms.

# Assessments

## Assessment Structure

Assessment Item	Weight	Relevant Dates
Quiz Assessment Format: Individual	20%	Start Date: At each practical and tutorial class Due Date: At each practical and tutorial class
Spot Test 1 Assessment Format: Individual	20%	Start Date: 25/03/2024 05:00 PM Due Date: 25/03/2024 06:30 PM
Spot test 2 Assessment Format: Individual	20%	Start Date: During Exam period Due Date: During Exam period
Final Exam Assessment Format: Individual	40%	Start Date: During Exam period Due Date: During Exam period

## Assessment Details

### Quiz

#### Assessment Overview

The aim of the quizzes is to assess and consolidate your knowledge on a regular basis throughout the course. They are short tests conducted during each practical and tutorial class. They consist of multiple-choice questions related to the contents of the week's lecture and practical/tutorial classes. The practical and tutorial quizzes will be held during class time and invigilated. Individual marks and answers will be given immediately after each quiz.

#### Course Learning Outcomes

- CLO1 : Describe the external and internal features of the spinal cord, brainstem and forebrain and their vascular supply.
- CLO2 : Identify neural structures in neuroanatomical diagrams, images, illustrations, radiological images, and 3D models.
- CLO3 : Correlate the neuroanatomical organisation of the central nervous system to its functions, including the processing of sensory inputs, control of motor outputs and emergence of higher brain functions.

### Detailed Assessment Description

Quizzes will be done at the end of the class, last for 4 min and consist of 2 multiple choice questions. The link to the quiz will be accessible from the Moodle page of the course which students will access via their smartphone, tablet or laptop. Students must use a UNSW Wifi (Uniwide or Eduroam).

Detailed information about this assessment will be provided on the course Moodle page.

### Assessment Length

4 minutes

### Submission notes

No short extension is available for this assessment task

### Assessment information

There will be a total of 16 quizzes. However, the 3 quizzes with the lowest score will be ignored in the calculation of the final quiz score. A missed quiz will automatically get a nil score unless the student can produce a medical certificate to justify their absence, in which case this quiz will be waived.

Students cannot apply for special consideration for a missed Quiz.

**USE OF GENERATIVE AI: NO ASSISTANCE.** It is prohibited to use any software or service to search for or generate information or answers. If such use is detected, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

### Assignment submission Turnitin type

Not Applicable

## **Spot Test 1**

### Assessment Overview

Spot test 1 is the first of two Spot tests (Spot test 1 and Spot test 2). The aim of Spot test 1 is to assess your ability to identify neural structures from images of brain and spinal cord dissections and sections, and to answer basic theory questions. It consists of multiple choice questions and short answer questions. Spot test 1 is based on the material covered in the practical and tutorial classes from week 1 to week 5. It is held around the middle of the term and is in-person and invigilated. Individual marks and generalised cohort feedback will be provided.

## Course Learning Outcomes

- CLO1 : Describe the external and internal features of the spinal cord, brainstem and forebrain and their vascular supply.
- CLO2 : Identify neural structures in neuroanatomical diagrams, images, illustrations, radiological images, and 3D models.
- CLO3 : Correlate the neuroanatomical organisation of the central nervous system to its functions, including the processing of sensory inputs, control of motor outputs and emergence of higher brain functions.

## Detailed Assessment Description

Spot test 1 will be held at the time of the Monday lecture in Week 7 on University desktops and laptops located in the Physiology laboratory, level 1 of Wallace Wurth building. It is in person and invigilated and student do not need to bring their laptop. The test lasts 50 min and consists of 10 main questions each with 4 to 5 sub questions. Some are multiple choice from a pop-up menu, others are short answer questions. The link to the spot test will be accessible from the Moodle page of the course.

More information and a practice spot test will be provided the week before the test (during week 6, flexi-week) for students to familiarise themselves with the format of the spot tests and to gauge the level of knowledge required.

Detailed information about this assessment will be provided on the course Moodle page.

## Assessment Length

50 minutes

## Submission notes

No short extension is available for this assessment task

## Assessment information

Students who miss Spot test 1 will have to apply for special consideration. If granted, they will be allowed to sit a spot test 1 during the supplementary exam period.

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## Assignment submission Turnitin type

This is not a Turnitin assignment

## **Spot test 2**

### **Assessment Overview**

Spot test 2 is the second of two Spot tests (Spot test 1 and Spot test 2). The aim of Spot test 2 is to assess your ability to identify neural structures from images of brain dissections and sections (including MRI and CT scans), and to answer basic theory questions. It consists of multiple choice questions and short answer questions. Spot test 2 is based on the material covered in the practical and tutorial classes from week 7 to week 10. It is held at the end of term during the examination period, and is in-person and invigilated. Individual marks and generalised cohort feedback will be provided.

### **Course Learning Outcomes**

- CLO1 : Describe the external and internal features of the spinal cord, brainstem and forebrain and their vascular supply.
- CLO2 : Identify neural structures in neuroanatomical diagrams, images, illustrations, radiological images, and 3D models.
- CLO3 : Correlate the neuroanatomical organisation of the central nervous system to its functions, including the processing of sensory inputs, control of motor outputs and emergence of higher brain functions.

### **Detailed Assessment Description**

Spot test 2 will be held during the examination period as instructed by central timetabling on University desktops and laptops located in the Physiology laboratory, level 1 of Wallace Wurth building. It is in person and invigilated and student do not need to bring their laptop. The test lasts 50 min and consists of 10 main questions each with 4 to 5 sub questions. Some are multiple choice from a pop-up menu, others are short answer questions. The link to the spot test will be accessible from the Moodle page of the course.

Detailed information about this assessment will be provided on the course Moodle page.

### **Assessment Length**

50 minutes

### **Submission notes**

No short extension is available for this assessment task

### **Assessment information**

Students who miss Spot test 2 will have to apply for special consideration. If granted, they will be allowed to sit a spot test 2 during the supplementary exam period.

**USE OF GENERATIVE AI: NO ASSISTANCE.** It is prohibited to use any software or service to search for or generate information or answers. If such use is detected, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

#### **Assignment submission Turnitin type**

This is not a Turnitin assignment

### **Final Exam**

#### **Assessment Overview**

The aim of the Final Exam is to assess your understanding of the structural and functional organisation of the nervous system as covered in the course. The examination consists of multiple-choice questions and short answer questions and is held at the end of term during the examination period. The Final Exam is in-person and invigilated. Individual marks and generalised cohort feedback will be provided.

#### **Course Learning Outcomes**

- CLO1 : Describe the external and internal features of the spinal cord, brainstem and forebrain and their vascular supply.
- CLO2 : Identify neural structures in neuroanatomical diagrams, images, illustrations, radiological images, and 3D models.
- CLO3 : Correlate the neuroanatomical organisation of the central nervous system to its functions, including the processing of sensory inputs, control of motor outputs and emergence of higher brain functions.
- CLO4 : Integrate knowledge of neuroanatomy with the disciplines of physiology, psychology, and pathology, to understand the relationships between structure, function and behaviour in the nervous system.
- CLO5 : Correlate structural and functional knowledge of the central nervous system and its vascular supply with neurological presentations and deficits.

#### **Detailed Assessment Description**

The Final exam is computer-based, in-person and invigilated. Students will need to bring their own laptop with a safe browser installed. The Final exam lasts for 2 hours and consists of 40 multiple choice questions (60% of the Final Exam mark) and 2 written questions (2 x 20% of the Final Exam mark). The Final Exam will cover the whole course, integrating knowledge from all lectures, practicals and tutorials.

More information and a practice Final Exam will be provided in week 10 for students to familiarise themselves with the format of the exam and gauge the level of knowledge required.

Detailed information about this assessment will be provided on the course Moodle page.

#### Assessment Length

2 hours

#### Submission notes

No short extension is available for this assessment task

#### Assessment information

Students who miss the Final Exam will have to apply for special consideration. If granted, they will be allowed to sit a Final Exam during the supplementary exam period.

**USE OF GENERATIVE AI: NO ASSISTANCE.** It is prohibited to use any software or service to search for or generate information or answers. If such use is detected, it will be regarded as serious academic misconduct and subject to the standard penalties, which may include 00FL, suspension and exclusion.

#### Assignment submission Turnitin type

This assignment is submitted through Turnitin and students do not see Turnitin similarity reports.

## **General Assessment Information**

Detailed instructions regarding assessments for this course are provided on the course Moodle page (or Open Learning).

For student information on results, grades, and guides to assessment see: <https://student.unsw.edu.au/assessment>

#### Grading Basis

Standard

#### Requirements to pass course

In order to pass this course students must:

- Achieve a composite grade of at least 50 out of 100
- Attempt all the assessments.

# Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 12 February - 18 February	Lecture	Monday 12 Feb, online, 5-6 pm: L1. Introduction to the Course and Neurohistology
	Lecture	Tuesday 13 Feb, online 12-1 pm: L2. Development of the Central Nervous System + 1-2 pm: L3. General Organization of the Brain
	Laboratory	Wednesday 14 Feb, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P1. General Organization of the Brain
	Tutorial	Friday 16 Feb, in person, WW G06/07, 12-2 pm: T1. Neurohistology and Development of the Central Nervous System
Week 2 : 19 February - 25 February	Lecture	Monday 19 Feb, online, 5-6 pm: L4. Spinal Cord 1
	Lecture	Tuesday 20 Feb, online 12-1 pm: L5 - Spinal Cord 2 + 1-2 pm: L6 - Spinal Cord 3
	Laboratory	Wednesday 21 Feb, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P2. Spinal Cord: Gray and White Mater
	Tutorial	Friday 23 Feb, in person, WW G06/07, 12-2 pm: T2. Spinal Cord: Gray and White Mater
Week 3 : 26 February - 3 March	Lecture	Monday 26 Feb, online, 5-6 pm: L7. Brainstem: Medulla
	Lecture	Tuesday 27 Feb, online 12-1 pm: L8. Brainstem: Pons & Midbrain + 1-2 pm: L9. Reticular Formation
	Laboratory	Wednesday 28 Feb, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P3. Brainstem: Medulla, Pons & Midbrain
	Tutorial	Friday 1 March, in person, WW G06/07, 12-2 pm: T3. Brainstem: Medulla, Pons & Midbrain
Week 4 : 4 March - 10 March	Lecture	Monday 4 March, online, 5-6 pm: L10. Cranial Nerves 1
	Lecture	Tuesday 5 March, online 12-1 pm: L11. Cranial Nerves 2 + 1-2 pm: L12. Cranial Nerves 3
	Laboratory	Wednesday 6 March, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P4. Cranial Nerves
	Tutorial	Friday 8 March, in person, WW G06/07, 12-2 pm: T4. Cranial Nerves
Week 5 : 11 March - 17 March	Lecture	Monday 11 March, online, 5-6 pm: L13. Auditory System
	Lecture	Tuesday 12 March, online 12-1 pm: L14. Vestibular System + 1-2 pm: L15. Visual System
	Laboratory	Wednesday 13 March, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P5. Auditory, Vestibular & Visual Systems
	Tutorial	Friday 15 March, in person, WW G06/07, 12-2 pm: T5. Auditory, Vestibular & Visual Systems
Week 6 : 18 March - 24 March	Lecture	Monday 18 March: NO LECTURE (Flexi week)
	Lecture	Tuesday 19 March, online 12-2 pm: L16/L17. Q&A Revisions (Optional)
	Laboratory	Wednesday 20 March, in person, Anatomy Lab 07, 1:00-3:00 pm: P6. Revisions (Optional)
	Tutorial	Friday 22 March: NO TUTORIAL (Flexi week)
Week 7 : 25 March - 31 March	Assessment	Monday 25 March, IN PERSON Room 115-120 level 1 WW building, 5-6 pm: SPOT TEST 1
	Lecture	Tuesday 26 March, online 12-1 pm: L18. Thalamus + 1-2 pm: L19. Telencephalon
	Laboratory	Wednesday 27 March, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P7. Thalamus and Telencephalon
	Online Activity	Friday 29 March GOOD FRIDAY, online and self-directed, : T7. Thalamus and Telencephalon
Week 8 : 1 April - 7 April	Lecture	Monday 1 April EASTER MONDAY, on line, PRE-RECORDED 5-6 pm: L20. Motor Cortex
	Lecture	Tuesday 2 April, online 12-1 pm: L21. Basal Ganglia + 1-2 pm: L22. Cerebellum
	Laboratory	Wednesday 3 April, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P8. Basal Ganglia and Cerebellar Disorders
	Tutorial	Friday 5 April, in person, WW G06/07, 12-2 pm: T8. Basal Ganglia and

		Cerebellar Disorders
Week 9 : 8 April - 14 April	Lecture	Monday 8 April, online 5-6 pm: L23. Cerebral Cortex
	Lecture	Tuesday 9 April, online 12-1 pm: L24. Hypothalamus + 1-2 pm: L25. Limbic System
	Laboratory	Wednesday 10 April, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P9. Cerebral Cortex and Limbic System
	Tutorial	Friday 12 April, in person, WW G06/07, 12-2 pm: T9. Cerebral Cortex and Limbic System
Week 10 : 15 April - 21 April	Lecture	Monday 15 April: NO LECTURE
	Lecture	Tuesday 16 April, online 12-2 pm: L26. Blood Supply, Meninges & CSF
	Laboratory	Wednesday 17 April, in person, Anatomy Lab 07, Cohort 1 at 1:00-3:00 pm OR Cohort 2, 3:30-5:30 pm: P10. Blood Supply, Meninges & CSF
	Tutorial	Friday 19 April, in person, WW G06/07, 12-2 pm: T10. Clinical cases

## Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

## General Schedule Information

The times and locations of classes can be found on [myUNSW](#) under Class Timetable.

The expected engagement for all UNSW 6UOC courses is 150 hours per term. This includes lectures, tutorials, readings, and completion of assessments and exam preparation (if relevant).

## Course Resources

### Prescribed Resources

#### ONLINE

#### Brainstorm Interactive Neuroanatomy

Brainstorm is hosted by BEST and is available at <https://www.best.edu.au>. Please note that a login authentication step is required to access Brainsstorm. You will receive an invitation to sign up at the beginning of the course. Brainstorm is free for UNSW students and staff is available online for remote use 24/7.

## Recommended Resources

#### TEXTBOOKS

The purchase of a textbook is not compulsory, but here are recommended textbooks.

T.W. Vanderah, and D.J. Gould. **Nolte's The Human Brain: An Introduction to its Functional**

**Anatomy**, 8<sup>th</sup> ed. C.V. Mosby, 2020. This is a comprehensive text. [Print](#) and [Digital](#) links. The 7<sup>th</sup> ed and 6<sup>th</sup> ed are also sufficient. The [6](#) and free from the UNSW library.

T.W. Vanderah, **Nolte's The Human Brain in Photographs And Diagrams**, 5<sup>th</sup> Ed Elsevier, 2018. This is a good companion to the comprehensive Nolte's textbook. [Print](#) and [Digital](#) links. [The 4](#) and free from the UNSW library.

Crossman, A.R. and Neary, D. **Neuroanatomy An Illustrated Colour Text**, 6<sup>th</sup> ed. Churchill Livingstone, 2019. This text is adequate but covers just the essentials. [Print](#) and [Digital](#) links.

## LIBRARY REFERENCES

M.F. Bear, B.W. Connors and M.A. Paradiso. **Neuroscience – Exploring the Brain**, 4<sup>th</sup> ed., Lippincott Williams and Wilkins, 2016. (3<sup>rd</sup> Ed 2007 OK if 4<sup>th</sup> not available)

Waxman, S. G., **Clinical Neuroanatomy**, 28th ed. McGraw Hill, 2017.

J.A. Kiernan: **Barr's The Human Nervous System. An anatomical Viewpoint**, 8<sup>th</sup> Edition. J. B. Lippincott, 2004.

D. E. Haines: **Neuroanatomy. An Atlas of Structures, Sections and Systems**: 8<sup>th</sup> Edition. Urban and Schwarzenberg, 2012.

E.R. Kandel, J.H. Schwartz, T.M. Jessell, S.A. Siegelbaum, and A.J. Hudspeth. **Principles of Neural Science**, 5<sup>th</sup> ed. Elsevier, 2013

C. Watson, M. Kirkcaldie, and G. Paxinos, **The Brain**. Elsevier, 2010

## ONLINE RESOURCES (IN ADDITION TO BRAINSTORM)

University of California (videos, 3D models and specimens, and interactive modules): <http://www.neuroanatomy.ca/>

University of Utah (videos of specimens): <https://neurologicexam.med.utah.edu/adult/html/brain-dissections.html>

For the basics: 2-minute neuroscience (short videos): <https://www.youtube.com/channel/UCUgZq9PkDp1xaEivtcfJPSg>

Soton Brain Hub (short videos): [https://www.youtube.com/channel/UC\\_JaCxgqtv-4ugFhpPYkZg](https://www.youtube.com/channel/UC_JaCxgqtv-4ugFhpPYkZg)

or <http://www.sotonbrainhub.co.uk/>

## REVISION FACILITIES

A limited number of models and dissections of neuroanatomical structures are available in the Anatomy Museum (Rm G09).

Access to the Anatomy labs with instructors will be given in Week 6 (Flexi week) on Wednesday afternoon 1-3 pm.

## Additional Costs

There are no additional costs associated with this course.

## Course Evaluation and Development

Student feedback is taken seriously, and continual improvements are made to the course based, in part, on such feedback.

We use student feedback from myExperience surveys to develop and make improvements to the course each year. We do this by identifying areas of the course that require development from both the rating responses and written comments. Please spare a few minutes to complete the myExperience surveys for this course posted at the top of the Moodle page at the end of term.

## Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Pascal Carri ve		Level 2 Wallace Wurth Building, room 253B		Monday-Friday	Yes	Yes
	Teri Furlong		Level 2 Wallace Wurth Building, room 261		Tuesday-Friday	No	No
	Thomas Dun can		Level 2 Wallace Wurth Building, room 261		Monday-Friday	No	No

## Other Useful Information

### Academic Information

As a student of UNSW Medicine & Health you are expected to familiarise yourself with the contents of this course outline and the UNSW Student Code and policies and procedures related to your studies.

## **Student Code of Conduct**

Throughout your time studying at UNSW Medicine & Health, you share a responsibility with us for maintaining a safe, harmonious and tolerant University environment. This includes within the courses you undertake during your degree and your interactions with the UNSW community, both on campus and online.

The [UNSW Student Code of Conduct](#) website provides a framework for the standard of conduct expected of UNSW students with respect to both academic integrity and your responsibility as a UNSW citizen.

Where the University believes a student may have breached the code, the University may take disciplinary action in accordance with the [Student Misconduct Procedure](#).

The [Student Conduct and Integrity Office](#) provides further resources to assist you to understand your conduct obligations as a student at UNSW.

## **Academic Honesty and Plagiarism**

### **Academic integrity**

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW staff and students have a responsibility to adhere to the principle of academic integrity, and ethical scholarship of learning is fundamental to your success at UNSW Medicine & Health.

Plagiarism, contract cheating, and inappropriate use of generative AI undermine academic integrity and are not tolerated at UNSW. For more information see the [Academic Integrity and Plagiarism toolkit](#).

In addition to the information you are required to review in your [ELISE training](#), UNSW Medicine & Health strongly recommends that you complete the [Working with Academic Integrity](#) module before submitting your first assessment task.

### **Referencing**

Referencing is a way of acknowledging the sources of information that you use to research your assignments. Preferred referencing styles vary among UNSW Medicine & Health disciplines, so check your course Learning Management System (e.g. Moodle or Open Learning) page for

information on preferred referencing styles.

For further information on referencing support and styles, see the Current Student [Referencing page](#).

### Academic misconduct and plagiarism

At UNSW, academic misconduct is managed in accordance with the [Student Misconduct Procedure](#). Allegations of plagiarism are generally handled according to the [UNSW Plagiarism Management Procedure](#). Plagiarism is defined in the [UNSW Plagiarism Policy](#) and is not tolerated at UNSW.

### Use of Generative AI and other tools in your assessment

UNSW has provided guiding statements for the [use of Generative AI in assessments](#). This will differ, depending on the individual assessment task, your course requirements, and the course stage within your program.

Your course convenor will outline if and how you can use Generative AI in each your assessment tasks. Options for the use of generative AI include: (1) no assistance; (2) simple editing assistance; (3) planning assistance; and (4) full assistance with attribution.

You may be required to submit the original generative AI responses, or drafts of your original work. Inappropriate use of generative AI is considered academic misconduct.

See your course Moodle (or Open Learning) page for the full instructions for individual assessment tasks for your course.

## Submission of Assessment Tasks

### Short extensions and special consideration

#### *Short extension*

Commencing in Term 1, 2024, UNSW has introduced a short extension procedure for submission of assessment tasks. Not all tasks are eligible, and eligible tasks have a predetermined extension length. UNSW Medicine and Health have set School-level extension lengths for eligible assessment tasks. See your course assessment descriptions for more information.

Students must check the availability of a short extension in the individual assessment task

information for their courses.

Short extensions do not require supporting documentation. They must be submitted before the assessment task deadline. No late applications will be accepted.

Late penalties apply to submission of assessment tasks without approved extension.

### *Special consideration*

In cases where short term events beyond your control affect your performance in a specific assessment task you may formally apply for [Special Consideration](#) through myUNSW.

UNSW has a **Fit to Sit rule**, which means that by sitting an examination on the scheduled date, you are declaring that you are fit to do so and cannot later apply for Special Consideration.

Examinations include centrally timetabled examinations and scheduled, timed examinations and tests managed by your School.

Important information relating to Short Extension and Special Consideration is available [here](#), including eligibility for Special Consideration, circumstances where students with Equitable Learning Plans can apply for Short Extensions and Special Consideration, and the appeals process.

### **Examinations**

Information about the conduct of examinations in your course is provided on your course Moodle page.

### **Timed online assessment tasks**

If you experience a technical or connection problem during a timed online assessment, such as a timed quiz, you can apply for Special Consideration. To be eligible to apply you need to contact the Course Convenor and advise them of the issue immediately. You will need to submit an application for Special Consideration immediately, and upload screenshots, error messages or other evidence of the technical issue as supporting documentation. Additional information can be found on: <https://student.unsw.edu.au/special-consideration>

### **Other assessment tasks**

#### ***Late submission of assessment tasks***

UNSW has standard late submission penalties as outlined in the [UNSW Assessment Implementation Procedure](#), with no permitted variation. All late assignments (unless extension or exemption previously agreed) will be penalised by 5% of the maximum mark per calendar day (including Saturday, Sunday and public holidays).

Late submissions penalties are capped at five calendar days (120 hours). This means that a student is not permitted to submit an assessment more than 5 calendar days (120 hours) after the due date for that assessment (unless extension or exemption previously agreed).

### ***Failure to complete an assessment task***

You are expected to complete all assessment tasks for your courses. In some courses, there will be a minimum pass mark required on a specific assessment task (a “hurdle task”) due to the need to assure clinical competency.

Where a hurdle task is applicable, additional information is provided in the assessment information on your course Moodle page.

### **Feedback on assessments**

Feedback on your performance in assessment tasks will be provided to you in a timely manner. For assessment tasks completed within the teaching period of a course, other than a final assessment, feedback will be provided within 10 working days of submission, under normal circumstances.

Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

**Any variation from the above information that is specific to an assessment task will be clearly indicated in the course and assessment information provided to you on your course Moodle (or Open Learning) page.**

### **Faculty-specific Information**

#### **Additional support for students**

The university offers a wide range of support services that are available for students. Here are some links for you to explore.

- The Current Students Gateway:<https://student.unsw.edu.au>
- Academic Skills and Support:<https://student.unsw.edu.au/academic-skills>
- Student support:<https://www.student.unsw.edu.au/support>
- Student Wellbeing, Health and Safety:<https://student.unsw.edu.au/wellbeing>

Mind Smart Guides are a series of mental health self-help resources designed to give you the psychological flexibility, resilience and self-management skills you need to thrive at university and at work.

- Mind Smart Guides: <https://student.unsw.edu.au/mindsmart>
- Equitable Learning Services:<https://student.unsw.edu.au/els>
- Guide to studying online: <https://www.student.unsw.edu.au/online-study>

Most courses in UNSW Medicine & Health use Moodle as your Learning Management System. Guidance for using UNSW Moodle can be found on the Current Student page. Difficulties with Moodle should be logged with the IT Service Centre.

- Moodle Support: <https://student.unsw.edu.au/moodle-support>

The IT Service Desk is your central point of contact for assistance and support with remote and on-campus study.

- UNSW IT Service Centre:<https://www.myit.unsw.edu.au/services/students>

## Course evaluation and development

At UNSW Medicine & Health, students take an active role in designing their courses and their overall student experience. We regularly seek feedback from students, and continuous improvements are made based on your input. Towards the end of the term, you will be asked to participate in the [myExperience survey](#), which serves as a source of evaluative feedback from students. Your input to this quality enhancement process is valuable in helping us meet your learning needs and deliver an effective and enriching learning experience. Student responses are carefully considered, and the action taken to enhance educational quality is documented in the

myFeedback Matters section of your Moodle (or Open Learning) course page.

## School-specific Information

### Laboratory or practical class safety.

For courses where there is a laboratory or practical-based component, students are required to wear the specified personal protective equipment (e.g., laboratory coat, covered shoes, safety glasses) indicated in the associated student risk assessments. The student risk assessments will be provided on the course Moodle page and must be read and acknowledged prior to the class.

### Master of Science in Health Data Science courses

Courses in the Master of Science in Health Data Science are hosted through [Open Learning](#).

Additional resources are available on the [Health Data Science Student Hub](#).

## School Contact Information

School guidelines on contacting staff:

### Course questions

All questions related to course content should be posted on Moodle (or Open Learning) or as directed by your Course Convenor.

In cases where email communication with course convenors is necessary, we kindly request the following:

- Use your official email address for any correspondence with teaching staff.
- We expect a high standard of communication. All communication should avoid using short-hand or texting language.
- Include your full name, student ID, and your course code and name in all communication.

Our course convenors are expected to respond to emails during standard working hours of Monday to Friday, 9am-5pm.

## **Administrative questions**

If you have an administrative question about your program of study at the School please submit your enquiry online at [UNSW Ask Us](#).

## **Complaints and appeals**

Student complaints and appeals: <https://student.unsw.edu.au/complaints>

If you have any grievances about your studies, we invite you to address these initially to the Course Convenor. If the response does not meet your expectations, you may then contact the School Grievance Officer, Prof Nick Di Girolamo ([n.digirolamo@unsw.edu.au](mailto:n.digirolamo@unsw.edu.au)).

**For MSc. HDS students:** School Grievance Officer, Dr Sanja Lujic ([s.lujic@unsw.edu.au](mailto:s.lujic@unsw.edu.au)), Centre for Big Data Research in Health