NEUR4441/4442/4443

Neuroscience Honours

Course Outline

Term 2, 2022

School of Medical Sciences

Faculty of Medicine & Health

CRICOS Provider Code 00098G

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1. Staff

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General inquiries can be made via the Neuro Honours Admin email: neurhonoursadmin@unsw.edu.au (office hours are 9.00am – 4pm).

2. Course information

Units of credit: 36 UOC

NEUR4441: 6

NEUR4442: 12

NEUR4443:18

- UNSW applicants must have completed 144 Units of Credit (UoC) for a 3-year degree or 192 UoC for a 4-year degree and satisfied the requirements of the program in which they are enrolled.
- Students should have completed a neuroscience major or specialisation or have a background in disciplines allied to neuroscience (as evidenced, for example, by completion of NEUR courses). Other students with an interest and some background in neuroscience may be eligible to enrol in the course subject to the approval of the Neuroscience Honours Convenor. External students with a background in neuroscience are eligible to enrol in the course subject to the approval of the Neuroscience Honours Convenor.
- UNSW applicants must have completed all General Education courses in accordance with the program rules; e.g. for 3991 (BMedSci), 12 units in total taken from outside the Science or Medicine and Health faculties.
- Minimum credit (65) weighted average mark (WAM) for overall degree based on stage 1-3 courses is required. An applicant with a WAM of at least 60 will be considered if the weighted average for their level 3 science courses is ≥65%, or if they have done additional training, for instance as vacation scholars and they can find a supervisor to support their application.

Teaching times and locations:

There are relatively few formal contact hours. Most of the time will be spent engaged in research work under the direct supervision of a UNSW neuroscience researcher (described below).

http://timetable.unsw.edu.au/2022/NEUR4441.html

http://timetable.unsw.edu.au/2022/NEUR4442.html

http://timetable.unsw.edu.au/2022/NEUR4443.html

The formal contact hours include:

- a presentation of the project proposal to SoMS academics, including the Neuroscience Honours Committee
- nine weekly two-hour sessions (NEUR4411 Behavioural Perspectives in Neuroscience)
- four ~8-hour workshops (NEUR4421 Biomedical Perspectives in Neuroscience)

- NEUR4411 Behavioural Neuroscience is offered during Term 1 and runs as weekly 2-hour classes, commencing week 1, for a duration of 9 weeks (the meeting room and timetable to be advised on Moodle). http://timetable.unsw.edu.au/2022/NEUR4411.html

- NEUR4421 Biomedical Perspectives in Neuroscience is offered during Term 2 and runs for 9 weeks as a series of workshops, commencing week 1 (the meeting room and timetable to be advised on Moodle). http://timetable.unsw.edu.au/2022/NEUR4421.html

2.1 Course summary

The Neuroscience Honours stream is run jointly by the School of Psychology and the School of Medical Sciences (SoMS). It is a multi-disciplinary research-based course which can be taken full-time over one year or part-time over two years.

Specifically, Neuroscience Honours is a 48 UOC specialisation that includes a full-year research project component, and 2 coursework components. Students enrol in two 6 UOC courses; NEUR4411 Behavioural Perspectives in Neuroscience, and NEUR4421 Biomedical Perspectives in Neuroscience. The research project occupies the other 36 UOC, which students take by enrolling in a combination of Neuroscience Research courses (NEUR4441, NEUR4442, NEUR4443) that add up to 36 UOC.

2.2 Course aims

The goal of Neuroscience Honours is to facilitate interaction of students with the broader neuroscience community at UNSW. In this course, you will work on a research project with one or more neuroscientists affiliated with UNSW and undertake course work that will introduce you to the range of knowledge and techniques that make up modern neuroscience. This multi-faceted is designed to enable you to develop high level research skills, especially in critical evaluation of data and communication of research results, with a specific focus on neuroscience. It will also develop other skills that are essential for modern scientists including of advanced disciplinary knowledge, self-directed learning, the use of specialised techniques relevant to chosen research area, and skills in critical thinking, evaluation and synthesis of information, and scientific communication in oral and written forms. Thus, this course prepares students for futures as research scientists, including higher degrees in research (Master's or PhD) and research assistant or laboratory roles.

The aims of Neuroscience Honours are to develop:

- coherent and advanced knowledge of the underlying principles and concepts in one or more disciplines, and knowledge of research principles and methods
- cognitive skills that review, analyse, consolidate and synthesise knowledge
- the ability to identify and formulate solutions to complex problems with intellectual independence
- a broad understanding of a body of knowledge and theoretical concepts with advanced understanding in some areas
- a research project that demonstrates technical skills in research and design
- an understanding of work health and safety (WHS) and laboratory safety standard operating procedures
- the ability to locate appropriate scholarly journal articles and to critically evaluate and synthesise scientific literature that informs their research topic
- the ability to accurately record experimental data, draw conclusions, and identify limitations
- the ability to critically assess their research data and integrate it into the wider field
- the ability to work as part of a research team
- the ability to effectively communicate scientific research in both written and oral forms, to both a specialist and a lay audience

At the successful completion of this course you (the student) should be able to:

1. Design and conduct scientific experiments of a high standard
2. Critically analyse data and scientific literature
3. Understand principles of safe and ethical scientific practice
4. Effectively communicate science through written and verbal mediums

2.3 Course learning outcomes (CLO)

CL01: Demonstrate an understanding and practice of workplace health and safety in addition to laboratory safety standard operating procedures.

CLO2: Access, critically evaluate, synthesise and reference a body of scientific literature that informs their research topic

CL03: Demonstrate practical skills in research, including techniques directly related to their specific research topic, accurate recording of experimental data and ability to work in a team.

CLO4: Critically assess their research data, integrate it into the wider field, and communicate effectively the findings in both oral and written formats

2.4 Relationship between course and program learning outcomes and assessments

NEUR4441/4442/4443 is a fourth-year subject available to science students with a background in neuroscience. This includes students in all UNSW Faculty of Science programs: i.e. Science - 3970, Advanced Science - 3962, Medical Science - 3991, Exercise Physiology program – 3871. NEUR4441/4442/4443 is also one of the possible entry requirements for a PhD in SoMS (e.g., anatomy-1750, pathology-1780, physiology & pharmacology-1790). You should consult with your supervisor, your mentor or the Honours Convenor by July if you are considering this option, as you may be able to apply for a number of scholarships.

Course Learning Outcome (CLO)	**LO Statement**	**Related Tasks & Assessment**
CLO 1	Demonstrate an understanding and practice of workplace health and safety in addition to laboratory safety standard operating procedures.	- Completion of mandatory training courses: WHS Awareness, Ergonomics, & Lab Safety Awareness. - 6 other possible training courses where relevant (e.g., PC2 laboratory, animal ethics, radiation training). - Thesis - Proposal

CLO 2	Access, critically evaluate, synthesise and reference a body of scientific literature that informs their research topic.	- Proposal seminar - Proposal
CLO 3	Demonstrate practical skills in research, including techniques directly related to their specific research topic, accurate recording of experimental data and ability to work in a team.	-Thesis
CLO 4	Critically assess their research data, integrate it into the wider field, and communicate effectively the findings in both oral and written formats	- Proposal seminar - Lay summary

3. Strategies and approaches to learning

3.1 Learning and teaching activities

The primary activity of NEUR4441/4442/4443 is self-driven laboratory research, with the goal of producing a research thesis authored by the student. This research will also be communicated to a wide audience through an oral in-person (proposal) presentation and a written lay summary. Neuroscience Honours engages the student in contextualised learning by allowing each student to conduct their own research project under the supervision of a specialist neuroscience researcher. The student and supervisor devise a project tailored to the student's strengths and to provide additional experience in areas that will help the student develop.

Laboratory research will provide the opportunity to develop knowledge and practical skills in research techniques, to work as part of a research team, and to accurately record experimental data. This will allow for responsibility and accountability for own learning and practice, collaboration with others, as well as for the identification of solutions to complex problems with intellectual independence.

Thesis writing will be self-driven and independent, and involve locating appropriate scholarly journal articles, and critical evaluation and synthesise of scientific literature. It will also allow for critical assessment of own research data, to integrate own data into the wider field of neuroscience, and to draw scientific conclusions. Students will also have the opportunity to learn to use statistical and graphing software necessary for accurate presentation of data.

The proposal and lay summary will provide the opportunity for developing communication skills to present a clear and coherent exposition of knowledge and ideas to a variety of audiences. Students will develop their own presentation (including visual aids) and lay summary in collaboration with their supervisors and other laboratory members. It will also provide the opportunity to learn to respond to feedback.

The coursework has its own set of learning activities. Please see relevant course outlines for NEUR4411 Behavioural Perspectives in Neuroscience, and NEUR4421 Biomedical Perspectives in Neuroscience.

3.2 Expectations of students

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.

Students have the primary responsibility (a) to conduct all aspects of the research project (including literature searches, data collection, and data analyses), (b) for the timely completion of the Honours thesis, and (c) for the form and content of the final product. Students are expected to behave in an ethical, socially responsible, and professional manner throughout honours in accordance with UNSW research integrity policies (*https://research.unsw.edu.au/research-integrity-policies-and-procedures*) and the Australian Code for the Responsible Conduct of Research[11] *https://nhmrc.gov.au/about-us/publications/australian-code-responsible-conduct-research-2018*

The attendance requirements for the research component of this course are to be arranged between the student and their supervisor. The underlying assumption is that Neuroscience Honours is a full-time course and so the workload is equivalent to that of a full-time job. Holidays are to be negotiated with the supervisor, as there are no fixed holiday periods. A timeline for the project including expected absences of both student and supervisor's forms part of the project proposal.

Students will also be assigned a mentor (which is a member of the Neuroscience Honours Committee) in approximately week 2 of their candidature. Students should seek help and advice from their mentor when difficulties of a personal or professional nature arise. All discussion with your mentor will be strictly confidential. Students organise to meet with their mentor in early March. Mentors will also meet with students to discuss the mid-honours progress report.

Students must acknowledge and agree to comply with the 'COVID-19 Student Health and Safety Agreement' as a condition of attending campus. This agreement outlines a set of expected behaviours while on campus. Failure to comply may be considered a breach of the Student Code of Conduct and subject to disciplinary action. Students are also required to read our Safe Return to Campus guidance . In order to undertake research on UNSW Sydney campus, you must abide by the COVID-19 Safe Return to Campus - Compliance & Approval Process. Students are not to come onto campus if any symptoms arise - they won't be penalised for this.

Students are expected to:

- develop an honours thesis project and plan for completing the project within the required timeframe in conjunction with their supervisor(s). Supervisors may limit the topic to areas that fit within the work of the research group and for which equipment and reasonable resources are available. The project often constitutes one section of a larger study but it is important to ensure the proposed work constitutes a stand-alone project. Once a topic is chosen, the development of the research proposal, hypotheses and appropriate design is the responsibility of the student working in conjunction with their supervisor(s).
- complete in a timely manner the Health & Safety online awareness training course and all required Work Health & Safety and laboratory safety training and to comply with all requirements. The Laboratory Safety Awareness Online, Work Health & Safety Awareness Online and Ergonomic Online courses must be completed by all students who are carrying out research within the Wallace Wurth building. Those students with projects that involve PC2 work, gene technology, radiation or animal handling must complete the additional courses. Students need to be enrolled into these courses via the H&S Student Online Training Registration or via myUNSW. Students carrying out research outside of the Wallace Wurth building need to complete all relevant H&S training provided by the place of work.

- gain ethical approval for your research project in conjunction with your supervisor (if it does not already exist) and to conduct your research in an ethical manner, treating tissue, animals or participants with respect and appreciation.
- follow experimental procedures as outlined by your supervisor(s), ensuring ethics compliance and consistency with other components of the larger project.
- treat with confidentiality any information identifying participants. Primary materials and confidential research data must be kept in secure storage. Confidential information must only be used in ways agreed with those who provided it.
- adopt and implement the standard practices of the research group. This may include methods for data identification and storage, resource bookings and equipment use, etc.
- keep organised, complete and confidential records of the data collected, particularly in a manner which can be easily accessed at any time by the student or supervisor(s) and be understood at a later date by a research group member not immediately involved in the work. Researchers have a legal responsibility to keep full, accurate and legible records of research methods, research data and primary materials (including laboratory notebooks and electronic data) in a durable, organised and accessible manner. Research data and materials remain the property the University/Institute/Centre, unless subject to a third-party agreement.
- seek the approval of your supervisor prior to consulting with other academic staff or other researchers in the field about the project and to undertake additional work towards the thesis identified as necessary by your supervisor. Posting of unpublished experimental plans or research results on the internet without the permission of the research supervisor is prohibited.
- take responsibility for the quality and originality of all submitted work.
- establish with your supervisor the level of support required for successful completion of the thesis and to maintain regular contact with her/him. Meetings with the supervisor are important, requiring the cooperation of both parties. These meetings can be virtual. Discuss with your supervisor how she/he prefers to operate, whether from informal discussions, drafts and outlines, question and answer sessions, individually or within the context of lab meetings, etc. Prepare in advance for supervisor meetings by determining the areas in which advice would be useful. Present any required written material or graphs/figures to your supervisor in sufficient time to allow for comments before the meetings. You may find it useful to follow up meetings with an email to your supervisor indicating your understanding of agreed actions, responsibilities and timelines (thus minimising miscommunication).
- maintain a professional and respectful relationship with your supervisor (e.g. to be punctual for meetings; to be willing to take advice and constructive criticism). Students are encouraged to deal promptly with any interpersonal issues that may arise with their supervisor, and if the relationship with the supervisor breaks down, students should seek advice from the Honours Convenor or the appropriate Grievance Officer.
- promptly notify the mentor of any significant disruptions to your capacity to undertake research.

We encourage all students to attend our weekly e-meetings (held online) where they will have the opportunity to ask any questions they have about the course to the course convenors, as well as to have contact with other students in the course. There is a coffee club for the same purpose. Attendance is not compulsory to either meeting.

Students are also expected to take advantage of research talks within their assigned laboratory as well as their department or school, and students will have the opportunity to attend lab meetings and journal clubs.

The coursework has its own list of expectations. Please see relevant course outlines for NEUR4411 Behavioural Perspectives in Neuroscience, and NEUR4421 Biomedical Perspectives in Neuroscience.

4. Course schedule and structure

16 - 30 May 2022	Students commence their research project. Exemption for a late start can be obtained by writing to the Honours Convenor.
30 May 2022	Official start of the Honours Year and Student Induction Seminar (virtual).
Week of 30 May 2022	Term 2 coursework (NEUR4421) commences
July 2022	Supervisor and Examiner Induction (virtual)
25 July 2022	Students present their Project Proposal orally, to Honours Committee
1 August 2022	Students submit Project Proposal document. Rejoinder due 2 weeks after receipt of examiner feedback.
30 September 2022	Student/Supervisor (mid-candidature) Progress Report due.
Week of 13 Feb 2023	Term 1 coursework (NEUR4411) commences
11 April 2023	Students submit Thesis
18 April 2023	Students submit Lay Summary

This course will rely on Moodle, Microsoft Teams and email for communication and resources. To access the course Moodle site, point your browser to:
https://moodle.telt.unsw.edu.au/login/index.php

Log on using your z-pass (z<student-number> and your password). After logging on to Moodle, look for the course entitled 'NEUR Honours'. Notes for the research component of Neuroscience Honours will be posted on Moodle. Updated assessment (thesis, proposal, and lay summary) and administrative information will also be provided there. Discussion forums are available for students to discuss the course with each other and the Honours Convenors. The best way to contact course staff with questions is by direct email.

The coursework components NEUR4411 and NEUR4421 have their own tab within the Moodle page. The exam periods for these courses are as follows:

5. Assessment

5.1 Assessment tasks

Assessment task	Length	Weight	Due date and time
Research NEUR444X (36 UOC)		**75%**	
Assessment 1: Proposal seminar	15 min	5%	Monday 25 July 2022
Assessment 2: Proposal	4,000 words	10%	Monday 1 August 2022
Assessment 3: Thesis	8,000 -10, 000 words	80%	Tuesday 11 April 2023
Assessment 4: Lay summary	2,000 characters	5%	Tuesday 18 April 2023
Coursework		**(25%)**	
NEUR4411 (6 UOC)		**12.5%**	
Assessment 1: Group presentation	20-30 min	30%	T1 2023 Week 4 or 5
Assessment 2: Essay on Neuroscience related topic	4 pages (double spaced, not including references)	30%	Friday 24 March 2023
Assessment 3: Final Exam	7-10 short answer questions 2 hours	40%	10-12 pm Tuesday 2 May 2023
NEUR4421 (6 UOC)		**12.5%**	
Assessment 1: Student Journal Presentation	30 min	30%	During assigned elective workshop
Assessment 2: Online quizzes (40 %)	40 min	40%	1 week after each workshop. Week 5 workshop quiz will be in week 7.
Assessment 3: 3 Minute Thesis Presentation	3 min	30%	July 29th 2022

Further information

UNSW grading system: https://student.unsw.edu.au/grades

UNSW assessment policy: https://student.unsw.edu.au/assessment

5.2 Assessment criteria and standards

Proposal assessments (presentation, proposal document and rejoinder document) are worth 15% of the final research mark. The main purpose of the Project Proposal is to provide timely and formative feedback to the student regarding their project, including details of design, conduct and analysis. The structure of the proposal and assessment process are modelled after the National Health and Research Council Project Grant Scheme. This process allows the Committee to raise issues around feasibility and fallback plans and models the iterative process of how science (grants, papers) is actually conducted.

Proposal Seminar (5%)

- Students will outline their research proposal to the Neuroscience Honours Committee, other supervisors, students and SoMS audience members. The presentation is to be up to 10 minutes long, and students may use PowerPoint or Canvas. There is no limit to the numbers of slides to use. Under certain circumstances (e.g. COVID-19), students may be asked to include an additional 'contingency plan' slide. The presentation should convey the aims, hypotheses, experimental design & rationale, outcomes and significance of the proposed research along with a timeline of the honours year.
- Students are expected to have rehearsed the talk with their supervisors; You are allowed to have notes/palm cards but you are expected to know your talk and not rely too heavily on your notes. Reading off your notes/palm cards too much will be reflected in your marks.
- The presentation is followed by up to 10 minutes of live questions and discussion between the candidate, supervisor(s), and the panel regarding the project, especially with regards to its feasibility in the timeframe. Students should expect to answer questions about the experimental design details.
- Students will receive written feedback on their talk from the audience (see page 14 of this course outline).

Proposal (10%)

- The written proposal should be no more than 4000 words. The proposal consists of an approximately 2000 words overview of the background literature followed by a research plan of no more than 2000 words that outlines the project, covering aims, hypotheses, experimental design & rationale, outcomes & significance, and timeline.
- Supervisor(s) are expected to read and provide editorial input on the proposal; however, they must not author the document.
- A detailed description of the formatting for the Project Proposal is on page 16-19 of this course outline, including marking guidelines on page 18. Information on Feedback is on page 14.
- Students should submit the Project Proposal via Turnitin portal on Moodle and send a PDF copy by email to the neurhonoursadmin@unsw.edu.au mailbox.
- Students will receive written comments from two assessors on their proposal document. The student will then respond in writing to the comments addressing all points (whether or not they have a question mark at the end) and justify their response. There is a strict 2-page limit (2-cm margins; 12-point Times New Roman) to the **rejoinder document** including any figures and references.

Thesis (80%).

- The written thesis (8,000 – 10,000 words) will be marked by two examiners. Details for its preparation are on pages 19-26 of this course outline. Information on Feedback is on page 15.
- Supervisor(s) are expected to read and provide editorial input on multiple drafts of the thesis

aside from the discussion. Supervisors are only allowed to read and comment on a single version of the thesis discussion. Discussion feedback is limited to constructive feedback on the structure of the discussion, its strengths and weaknesses, and the general writing style. Supervisors are permitted to draw the student's attention to any errors or inconsistencies but must NOT under any circumstances, rewrite any words, phrases or sentences. Students may receive feedback from each supervisor; however, the supervisors must be given the same version of the discussion.

- Students should submit their Research Thesis by **11 April 2023 (5pm)** via Turnitin on Moodle, and also send a PDF copy by email to the Neuroscience Honours Administrative mailbox: neurhonoursadmin@unsw.edu.au.
- The supervisor(s) will be provided with a copy of the submitted document and asked to confirm the validity of the data and rate the student's independence in generating, conducting, and writing up the research. This feedback will not contribute formally to the mark but may be used by the examiners in arriving at their decision. The feedback form will be emailed to supervisors prior to the thesis submission date.
- The thesis grading criteria used by the examiners are included at the end of this course outline. Where there is a discrepancy of greater than 10 marks, the two examiners will confer and where possible, reach an agreement in consultation with the Honours Convenor. However, where agreement is not possible, the thesis will be examined by a third marker. The three marks will then be averaged to determine the final grade.

Lay Summary (5%).

- This 2000 character or less summary of the Research Thesis is targeted at an educated audience without a scientific background. Preparation guidelines will be distributed one month prior to the due date. See page 29 for details on preparation of the Lay Summary.
- Students should submit their Lay Summary by **18 April 2023 (5pm)** via Turnitin on Moodle and also send a PDF copy by email to the Neuroscience Honours Administrative mailbox: neurhonoursadmin@unsw.edu.au.
- The lay summaries will be marked by Neuroscience Honours Committee members.

The **Coursework component (NEUR4411 and NEUR4421)** comprises 25% of the final honours mark (12.5% per course). In NEUR4411 (Behavioural Perspectives in Neuroscience), students learn about neuroscience from a psychological perspective. Students will be introduced to a range of techniques and learn how to critically evaluate the primary literature. NEUR4421 (Biomedical Perspectives in Neuroscience) will be taught from a biomedical science perspective and consists of half-day workshops covering different cutting-edge neuroscience techniques, statistics and thesis writing. Together, the coursework will provide students with a broad knowledge base and appreciation of neuroscientific developments complementing the deep learning provided by the research project. The coursework is assessed by the staff that delivered the material.

Honours Grades

At the completion of their Honours program, students will be awarded an honours grading as follows**:**

- Honours Class 1: mark of 85 or greater
- Honours Class 2 Division 1: mark from 75 to 84.99
- Honours Class 2 Division 2: mark from 65 to 74.99
- Honours Class 3 or Pass: mark below 65

The calculation of class of award will be determined from the student's weighted average mark (WAM) for all research (75%; 36 UOC) and coursework (25%; 12 UOC) components required for the

program.

Honours marks and grades will be scrutinised at a School level as either part of an Honours Committee or School Assessment Committee to ensure consistency across sub-disciplines and cohorts. The Faculty will also review these marks and grades prior to the release of results.

5.3 Submission of assessment tasks

Students should submit all written assignments via Turnitin portal on Moodle and send a PDF copy by email to the neurhonoursadmin@unsw.edu.au mailbox.

If you unavoidably miss an assessment task, you must inform the Honours Convenor immediately. You must supply adequate documentation (such as a medical certificate) to be considered for any supplementary assessment. Application for an extension must be made by contacting the Honours Convenor and via Special Consideration procedures and will only be granted in exceptional circumstances (see further details below).

Students who miss more than 2 hours of coursework (NEUR4411 and NEUR21) classes due to illness or for other reasons must submit a copy of medical certificates or other acceptable documentation to the Honours Convenor. Certificates should be lodged no more than 7 days after an absence. The following details must be attached: Name, Course code, Date of the class, Name of class missed.

Late Submission

Failure to submit assessments on time will result in a daily penalty of 5% of the total marks of the assessment item being applied, except where an extension to the deadline has been applied for and approved by the Honours Convenor.

Special Consideration

If you experience a short-term event beyond your control (exceptional circumstances) that impacts your performance in a particular assessment task, you can apply for Special Consideration.

You must apply for Special Consideration **before** the start of your exam or due date for your assessment, except where your circumstances of illness or misadventure stop you from doing so.

If your circumstances stop you from applying before your exam or assessment due date, you must **apply within 3 working days** of the assessment, or the period covered by your supporting documentation.

More information can be found on the Special Consideration website.

5.4. Feedback on assessment

Feedback on the proposal will be provided by at least 3 members of the honours committee, as well as students in Neuroscience Honours course and other members of the audience present. Students will be provided with an average rating out of 10 for10 categories that cover presentation content (e.g. how well background literature, aims, methods and potential outcomes were described) and presentation delivery (e.g. pacing, clarity, and professionalism). Each student will also be provided with all comments and feedback made by the honours committee and Neuroscience Honours students. Feedback will be emailed to the student within two weeks of task completion. The specific 10 categories for feedback are:

- Background conveyed the significance of the topic and set the scene for hypothesis and aims
- Background provided appropriate depth and focus
- Main research question/hypothesis is clearly explained

- Specific aims are clearly listed
- Methodology/experimental design is described with appropriate detail
- Clear and logical link between the aims and the research plan
- Potential outcomes and their significance are clearly presented
- Presentation delivery is clear, articulate, enthusiastic and professional
- Presentation is well-paced
- Slides are clear, clean and error-free with appropriately sized fonts and graphics. All figures and graphs are informative and labelled
- Question time: Student showed a clear understanding of the project and gave logical & thoughtful answers

Feedback on the written proposal will be provided by two examiners (one selected by the student's supervisor and the other will be a self-elected supervisor of another student in the program). Feedback from both examiners will be emailed to the student usually within two weeks of task completion (but sometimes up to 3 weeks after task completion). Each examiner will provide 0.5-1 page feedback on writing style, and 0.5-1 page on proposal content. This feedback will give the student an opportunity to improve their research project and writing prior to submission of their research thesis. Students will also be asked to address at least two questions from each examiner on their proposal. This will allow students to clarify and improve aspects of their proposal and to demonstrate a greater understanding of their project where needed.

Feedback on the thesis will be provide by two examiners. Feedback from both examiners will be emailed to the student within two weeks of task completion. Each examiner will provide 0.5-1 page feedback on any aspect of the thesis such as writing style and proposal content.

Student and supervisor will together submit a **mid-honours progress report** to the student's Honours mentor on 30 September 2022, approximately halfway through the honours year. Students and supervisors will be emailed the report template and guidelines (see page 28 for template). The purpose of this report is to provide feedback on the student's progress. The report is also an opportunity to identify any issues that might impact the honours project and to adjust/add new milestones to ensure successful completion of the project. The course convenor/ mentor should be contacted immediately in the event of significant disruptions to the student's capacity to undertake research or lack of student attendance.

6. Academic integrity, referencing and plagiarism

Referencing is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

Please APA referencing style for this course.

Further information about referencing styles can be located at https://student.unsw.edu.au/referencing

Academic integrity *is fundamental to success at university. Academic integrity can be defined as a commitment to six fundamental values in academic pursuits: honesty, trust, fairness, respect, responsibility and courage.*[1] *At UNSW, this means that your work must be your own, and others' ideas*

[1] International Center for Academic Integrity, 'The Fundamental Values of Academic Integrity', T. Fishman (ed), Clemson University, 2013.

should be appropriately acknowledged. If you don't follow these rules, plagiarism may be detected in your work.

Further information about academic integrity and ***plagiarism*** *can be located at:*

- *The Current Students site* https://student.unsw.edu.au/plagiarism*, and*
- *The ELISE training site* http://subjectguides.library.unsw.edu.au/elise/presenting

The Conduct and Integrity Unit provides further resources to assist you to understand your conduct obligations as a student: https://student.unsw.edu.au/conduct*.*

7. Readings and resources

Instructions for preparing the project proposal

(Adapted from SoMS, the National Health and Medical Research Council, and the British Journal of Pharmacology, the Journal of Anatomy, the Journal of Pathology and the Journal of Physiology)

The Neuroscience Honours proposal is a 3-part process; thesis, talk, and rejoinder. The format is meant to model that of the NHMRC and ARC. Examiners will provide feedback on students writing style and the project itself. Examiners are also required to pose 2 or more questions to the student. The students will address these questions in their written rejoinder, which will used to arrive at a final mark.

The written proposal should have ~2000 words that provide a review of the background literature, and up to 2000 words that describe the aims, hypotheses, experimental design & rationale, and a timeline (described in more detail below).

Proposals must include: 1. Title Page, 2. Overview, 3. List of abbreviations, 4. Background, 5. Aims and Hypotheses, 6. Experimental Design and Rationale, 7. Timeline, 8. References

Proposal Structure (see below for more detail).

Overview	Concise explanation of the motivation, the aim, and the proposed experimental approach of the study that is understandable without reference to the rest of the paper.
Background	Clear account of the scientific background and the rationale of the experiment.
Aims / Hypotheses	Clearly expressed aims that emerge from the Background. Specific testable hypotheses.
Experimental Design & Rationale	Logical and clear description of the planned experiments and data analysis, including appropriate controls and replication.
Timeline	Key time points for experiments, analysis and writing

Title Page: The title should contain no more than 150 characters (including spaces) and clearly indicate the subject matter of the proposed research.
Your Name:
Supervisors Names: Supervisors' name in full and the department(s) and institution(s) to which the work should be attributed.

Word Count: The word count excluding the overview, abbreviations, references, tables, figures and figure legends should be listed.

Brief Overview of the proposal (< 250 words) should follow the title page. The overview should explain the motivation for the study, the aim of the study, and the proposed experimental approach. It should be understandable without reference to the rest of the paper. References may not be cited.

Abbreviations: List all abbreviations used

Background should give a clear account of the motivation for the study. The background is not simply a list of the manuscripts within the field of interest, but rather a discussion the theoretical context of the proposed research based on synthesis of the literature (i.e. putting the project into a relevant context). This section should describe the significance of proposed research and set the scene for the hypotheses and aims. As a guide, we expect this section to be about 2000 words in length and contain 30-60 references.

Aims and Hypotheses
This section is a succinct description of the research question(s) posed and their significance, along with a numbered list of the specific aims of the project (i.e. what you hope to accomplish). These aims should be concrete measurable objectives. Each aim should be followed by a concise description of how the aim will be achieved. This section should also include a clear statement of the hypothesis (or hypotheses) to be tested.

Experimental Design and Rationale
This section contains a detailed description of the experiment design and techniques to be used to answer the research questions and achieve the stated aims. The methods must be described in sufficient detail to allow the experiments to be interpreted an experienced investigator. Give references to established methods, provide references and brief descriptions for methods that have been published but are not well known; describe new or substantially modified methods. Explain how the data will be quantified, the appropriate controls and the proposed methods of statistical analysis. Indicate why the proposed experimental approach was chosen over alternative methodologies. Where appropriate, describe your selection of the subjects (patients or laboratory animals, including controls), identify the age, sex, strain, number required and other important characteristics of the subjects. Expected and potential outcomes of each experiment should be mentioned and their significance should be related to the aims of the project. The research plan should discuss possible pitfalls and consider contingency plans where appropriate. *Students must clearly distinguish between tasks performed by the students themselves and tasks performed by other members of the research group.*

Timeline should include any absences by the student or supervisors during the course of the project, in addition to key time points for experiments, analysis and writing.
References The APA (American Psychological Association) referencing style should be used in the proposal. APA referencing guidelines can via the following link: https://student.unsw.edu.au/apa

Students must indicate the 5 most significant primary literature references (no reviews) and write a 2-4 sentences comment for each, explaining its significance to the proposed research. This evaluation of references is not included in the word count.

Tables are numbered consecutively according to the order in which they have been first cited in the text. Tables should be numbered with Arabic numerals and the number should be followed by a brief descriptive title at the head of the table. Tables should be self-explanatory, with necessary descriptions provided in footnotes underneath the table. Give each column a short or abbreviated heading.

Figures and Legends should be numbered consecutively according to the order in which they have been first cited in the text. Figure legends can appear below the figure and/or on a separate page. Each figure should be given a title and a legend that explains the figures in sufficient detail that, whenever possible, they can be understood without reference to the text. All symbols and abbreviations should be explained within the legend. If a figure has been published, acknowledge the original source.

Abbreviations, Units and Symbols: Use only standard abbreviations; the full term for which an abbreviation stands should precede its first use in the text. SI units and symbols should be used for physicochemical quantities. Gene names and loci should be in italics, and proteins should be in roman. Virus nomenclature (and acronyms) should follow the guidelines of the International Committee on the Taxonomy of Viruses (ICTV). Chemical nomenclature should follow the International Union of Pure and Applied Chemistry (IUPAC) definitive rules for nomenclature. Pharmacological units should follow the guidelines given in the British Journal of Pharmacology.

Formatting and Technical Instructions: Text should be in 12-point font, with 1.5 line spacing throughout the manuscript. Margins should be 2 cm all round. The manuscript should be 4,000 words (+/- 10%) excluding the overview, references, tables, figures, and legends. In text citations are included in the word limit.

Instructions to examiners: The examiners will be asked to evaluate and consider the writing style of the proposal as follows:

- clarity of thinking (logical consistency, thoroughness, focus, rationale)
- clarity of expression (clear sequencing and presentation of information)
- grammar and spelling
- referencing in a consistent and appropriate style

Examiners will also be asked to offer suggestions on how the writing can be improved, and to identify strong and weak points in the writing. Examiners will also be asked to evaluate the project as follows:

- scope of the project (is it a reasonable body of work achievable in the time frame?)
- clarity of the aims and hypotheses
- experimental design and contingency plans (Will the research plan successfully address the stated hypothesis or research objectives?). Comment on concerns about feasibility (within time-frame, etc).
- planned analysis techniques
- How well did the student convey the experimental design including methods, subjects, controls, experimental outcomes?
- Given that the project itself is determined by the supervisor; the scientific quality and innovativeness of the project should not be included in the evaluation.

In addition to providing their assessment of the proposals, examiners are required to **pose two or more questions**. The questions can pertain to aspects of the research plan such (missing details,

controls, rationale, alternative methods) or to aspects of the background or aims & hypotheses (clarification of aims, errors of logic, relevant background that was omitted.

Proposal marking criteria: Marks for this assessment are to be given holistically based on the marking standards given below, rather than fixed to a prescribed rubric. Student marks should be based on the quality of the proposal /rejoinder documents and **NOT** the scientific quality and innovativeness of the project itself, as this reflects the supervisor rather than the student. Half of the proposal was dedicated to the Background; thus, about half of the weight should be on this section. As a guide, we expect about half the students in Neuroscience Honours program to obtain a first class honours (85+).

Mark	Standard
95-100	**Uni Medal worthy**. Outstanding achievement on all aspects of the proposal approaching the level of PhD scholarship in the academic field.
90-94.9	**Truly exceptional**. Very well written, clear and concise throughout. Thorough evaluation of the literature. Exceptional grasp of critical concepts. Clearly outlined aims and hypotheses. Clear description of the experimental approach. Experimental outcomes linked to hypotheses.
85-90	**Outstanding.** Well-written with good critical analysis of the literature. Minor deficiencies in one aspect of the proposal. Links between background and hypothesis may not be entirely clear, or some issues have not been tackled in sufficient depth in Background or Experimental Design and Rationale.
80-84.9	**Accomplished.** Mostly well written with reasonable critical analysis. Some links between background and hypothesis are not clear, or some obvious questions not fully addressed in Background or Experimental Design and Rationale.
75-79.9	**Sound work.** Although generally satisfactory, this may have some logical inconsistencies, inadequate critical analysis, or be hard to understand.
70-74.9	**Satisfactory**. Satisfactory proposal in most areas, but with some obvious weaknesses in one or more areas.
<70	Poor proposal reflecting a limited effort in many areas.

Instructions for preparing the research thesis

(Adapted from SOMS, and the British Journal of Pharmacology, the Journal of Anatomy, the Journal of Pathology and the Journal of Physiology)

Manuscripts must include: 1. Title Page, 2. List of abbreviations, 3. Abstract, 4. Introduction, 5. Methods, 6. Results, 7. Discussion, 8. Acknowledgements, 9. List of references

Title Page Title: The title should contain no more than 150 characters (including spaces) and clearly indicate the subject matter of the paper.
Authors: The author's name in full and the name and addresses of the department(s) and institution(s) to which the work should be attributed.
Word Count: The word count excluding abstract, acknowledgments, references and figure legends should be listed.

Abbreviations List all abbreviations used.

Abstract must be 250 words or less. It should provide the background for the study, experimental approach, major findings and conclusions. The abstract should be understandable without reference to the rest of the paper. The 250-word limit should allow for ~2 sentences each of introduction, methods, results, and conclusion. References may not be cited.

Statement of Contribution should specifically identify the components of research undertaken by the student. To do this, indicate which aspects of the research results included in the project manuscript were done in collaboration with, or undertaken by, other members of the research group or by external collaborators. Examples of this may include (but not limited to); some surgeries being undertaken by more experienced lab colleagues, tissue cultures being maintained or processed by lab assistants, survey response or patient databases generated or analysed in whole or partly by others, a subsection of the same experimental data obtained by lab colleagues, nucleotide sequences or gene mutations being outsourced to an external company. Seek advice from your supervisor or mentor if you are unsure about this.

Introduction should give a clear account of the background for the study, and the research objective or hypothesis tested should be stated. The introduction should be understandable to a non-specialist.

Methods must be described in sufficient detail to allow the experiments to be interpreted and repeated by an experienced investigator. Give references to established methods, provide references and brief descriptions for methods that have been published but are not well known; describe new or substantially modified methods. Identify the apparatus, drugs and chemicals used, give the manufacturer's name and address in parentheses after each item. Describe the statistical methods used and define all statistical terms, abbreviations, and symbols. Specify the computer software used. Where appropriate, describe your selection of the subjects (patients or laboratory animals, including controls), identify the age, sex, strain, number used and other important characteristics of the subjects. The methods must also include the name of the ethics committee approving the study and a statement confirming that the experiments have been conducted in accordance with the relevant national or world guidelines. Fine details of key resources and procedures including antibody identifiers, oligonucleotide sequences, etc can be included in a supplemental methods section that is not included in the thesis word count.

Results: Present your results in logical sequence in the text, tables, graphs and illustrations. The description of the experimental results should be succinct, but in sufficient detail to allow the experiments to be analysed and interpreted by the reader. Where data is presented, the mean results with standard errors or confidence intervals, the population size, and statistical significance, should be given where appropriate. Exact p-values and degrees of freedom should be provided. The rationale for performing the experiments may be briefly mentioned in the Results section, but conclusions or interpretation of results should not be presented. Do not repeat in the text all the data that is presented in the tables or graphs. Headed paragraphs maybe used to aid in the presentation of the results. Please note that all work which is integral to the manuscript but was not performed by the Honours student (*i.e.* was undertaken by another member of the supervisor's and/or co-supervisor's research group) is to be clearly disclosed in the Methods, Results and/or Acknowledgments as appropriate.

Discussion: In the discussion, explore possible mechanisms or explanations for the findings of your study, compare and contrast your results with those from other relevant studies, state the limitations of the study, and explore the implications of the findings for future research. Do not repeat in detail

data or other material given in the Introduction or the Results sections. The main conclusions should be conveyed in the final paragraph. **Supervisors are only permitted to read one version of the discussion**.

Acknowledgements: The student must list the contribution of others to the research project. The student must clearly indicate all data collection or analysis performed by other members of the research group. For Honours, you will collaborate with your supervisor(s) and other members of your research group, thus your supervisor(s) and research group members who provide substantial input (e.g. for animal surgery; previously collected data) should be acknowledged. The student should also acknowledge those who have provided reagents, technical help and scientific advice.

References: The APA (American Psychological Association) referencing style should be used in the proposal. APA referencing guidelines can via the following link: https://student.unsw.edu.au/apa

Tables are numbered consecutively according to the order in which they have been first cited in the text. Tables should be numbered with Arabic numerals and the number should be followed by a brief descriptive title at the head of the table. Tables should be self-explanatory, with necessary descriptions provided in footnotes underneath the table. Give each column a short or abbreviated heading.

Figures and Legends Figures should be numbered consecutively according to the order in which they have been first cited in the text. Figure legends can appear below the figure and/or on a separate page. Figures must be high resolution and clearly discernible with sufficiently different symbols that they can be interpreted if printed in black and white. All axes must be labelled and include the units of measure. Each figure should be given a title and a legend that explains the figures in sufficient detail that, whenever possible, they can be understood without reference to the text. All symbols and abbreviations should be explained within the legend. If a figure has been published, acknowledge the original source.

Supplemental Methods: Information required experimental replication, but the not the basic understanding and evaluation of the methodology may be included as supplemental methods. While supplemental methods are not included in the word count, this section should not be used as a mechanism to subvert the thesis word limit as examiners must be able to understand the methods section without consulting the supplemental section.

Supplementary Data: Material needed for an in-depth evaluation of the work, but which does not fit well in manuscript format, should be included as Supplementary Data. These data should only be included if they enhance the overall understanding of the research but are not be essential for the understanding of the manuscript.

Abbreviations, Units and Symbols: Use only standard abbreviations; the full term for which an abbreviation stands should precede its first use in the text. SI units and symbols should be used for physicochemical quantities. Gene names and loci should be in italics, and proteins should be in roman. Virus nomenclature (and acronyms) should follow the guidelines of the International Committee on the Taxonomy of Viruses (ICTV). Chemical nomenclature should follow the International Union of Pure and Applied Chemistry (IUPAC) definitive rules for nomenclature. Pharmacological units should follow the guidelines given in the British Journal of Pharmacology.

Formatting and Technical Instructions: Text should be in 12-point font, with 1.5 line-spacing throughout the manuscript. Margins should be 2 cm all round. The manuscript should be **8,000-10,000 words** excluding the abstract, acknowledgements, references, tables, figures, legends and supplementary material. In text citations are included in the word limit. Exceeding the 10,000-word limit may be penalised.

Guidelines for examiners: The thesis is not intended to be a journal article, but rather a chance for students to demonstrate their scientific understanding by describing their experiments; this may include detailed methods and reasoning behind their experimental design.

Remember that the project itself is determined by the supervisor; therefore, the scientific quality and innovativeness of the project is not assessed. Assessments should be based on the student's ability to: convey the significance of the work; communicate the details of their experiment; present the data; interpret the data and; critically relate their results to the literature.

Please be realistic with your expectations. Consider what the student has accomplished in the short time-frame (9 months) and the obstacles they encountered. Do NOT assess the significance of the work. Remember that this is not a manuscript review. Projects fail and experiments do not always yield meaningful results. A lack of positive results should not preclude students from receiving a first-class honours.

The basic components of the thesis are provided in the table below. Examiners are also referred to the instructions for preparing the research thesis at the end of this document. Please note Neuroscience Honours is jointly managed by the School of Medical Sciences and the School of Psychology. Neuroscience Honours thesis guidelines differ from SoMS Honours thesis guidelines, although both programs have similar expected standards for the final document.

Abstract	A succinct account of the research question, methods, findings, and significance.
Introduction	Clear account of the scientific background and the rationale of the experiment. Critical analysis of the literature. The hypotheses/aims linked to the literature.
Methods	Clear and detailed description of experiments and data analysis.
Results	Logical and clear description of the experimental results with reference to Tables and Figures. No conclusions or interpretation of results presented. Sufficient controls and replicates with appropriate data analysis.
Figures & Tables	Graph axes are labelled and units of measurement given in parentheses. Legends explain the Figures and Tables in sufficient detail to stand alone.
Discussion	Clear interpretation of the results with reference to previous scientific studies. Significance of the findings is placed in the broader context of the field. Comprehensive critical analysis of strengths and limitations of the experiments.
References	Extensive reference list including older ground-breaking studies and newer cutting-edge research. Citation style correct and consistent.
Appendix	May include details of unsuccessful experiments, to allow the examiner to assess that the student has conducted a suitable amount of experimental work.

Assessors should grade the thesis out of 100 using the standards below and provide some comments for the student on the "Feedback to Student" form. The feedback should be consistent with and provide justification for the final mark.

Neuroscience Honours recognises that every research project is unique. Therefore, we have chosen not to adopt a strict marking rubric. The final mark is holistic and should reflect the standard below. While we have different guidelines for thesis preparation and marking than SoMS Honours, we have similar expectations for the final thesis. A modified version of the SoMS rubric is given below to provide some guidance on the expected standards. Each component should be weighted in a manner appropriate for the project. Suggested weights are given in parentheses. Neuroscience Honours supervisors provide feedback on the student's performance, but they do not provide a mark for their students. Instead their feedback is given to you to assist you with the assessment.

Please be aware when reading the discussion that supervisors were only allowed to read and comment on a single version of the thesis discussion. Comments were limited to constructive feedback on the structure of the discussion, its strengths and weaknesses, and the scientific writing style. Supervisors are NOT permitted under any circumstances to rewrite any words, phrases or sentences.

Mark	Grade	Standard
95-100	1st-Uni Medal	Outstanding achievement approaching the level of PhD scholarship in the academic field.
90-94.9	High 1st	Truly exceptional. Exceptional grasp of concepts and methodology. Very well written. Clear capacity for further research.
85-90	1st class	Outstanding work, which demonstrates an ability to see implications from a synthesis of the literature and form a clear conceptual framework. Strong grasp of methodology. Very well written. Good potential for further research work.
80-84.9	High 2.1	Accomplished work, which demonstrates an ability to synthesise the literature. Good grasp of concepts and methodology, with a few minor flaws. Well written. Sound potential to undertake further research.
75-79.9	Low 2.1	Describes the literature and demonstrates sound research methodology and practices, yet falls somewhat short due to poor organisation, logical inconsistencies, inadequate critical analysis. Some sections hard to understand.
70-74.9	High 2.2	A satisfactory thesis in most areas, but with some obvious weaknesses in one or more areas, especially in relation to major errors in interpretation of results or their significance.
<70	Low 2.2	A poor thesis reflecting a limited effort in many areas.

Criteria	Project Manuscript						
	10-9.0 **Outstanding**	**8.9-8.5** **Excellent**	**8.4-8.0** **Very Good**	**7.9-7.5** **Good / Average**	**7.4-6.5** **Fair**	**6.4-5.0** **Poor**	**4.9-0** **Very Poor**
Abstract **(0.5)**	• Concise and informative summary of project rationale, results and relevance.	• Concise and informative summary of project rationale, results and relevance. Minor aspect unclear/missing.	• Nice summary of project rationale, results and/or relevance. Some key aspect potentially missing.	• Nice summary of project rationale, results and/or relevance. Some aspect missing and/or some error(s).	• Fair summary of project, some aspect missing, and/or some error(s). Potentially inconsistent with main text.	• Significant inaccuracies in the summary of project.	• Significant inaccuracies in the summary of project.
Introduction **(1.0 – 1.5)**	• Concise and clear account of the scientific background and the rationale of the experiment. Very clear links between hypotheses/aims and literature.	• Concise and clear account of the scientific background and the rationale of the experiment. Clear links between hypotheses/ aims and literature.	• Clear account of the scientific background and the rationale of the experiment. Clear links between hypotheses/ aims and literature. Minor errors.	• Clear account of the scientific background and the rationale of the experiment. Minor omissions or errors. Links between hypotheses/ aims and literature.	• A good introduction of the scientific background and the rationale of the experiment. Some factual error or omissions. Some links between hypotheses /aims and literature.	• Some introduction to the scientific background and the rationale of the experiment. More detail needed. Some links between hypotheses/ aims and literature. Factual errors or omissions in text.	• Lacking detail of the rationale of the experiment and scientific background. No links between hypotheses/aims and literature. Factual errors or omissions in text.
Methods **(1)**	• Clear and detailed description of experiments and data analysis (including statistical analysis).	• Clear description of experiments and data analysis (including statistical analysis).	• Good description of experiments and data analysis (including statistical analysis), with minor errors.	• Description of experiments and data analysis (including statistical analysis) mostly clear but significant detail lacking. Minor errors present in methods.	• Description of experiments and data analysis (including statistical analysis) lacking major details. Minor errors present methods.	• Description of experiments and data analysis (including statistical analysis) lacking major details. Major errors in methods.	• Description of experiments and data analysis (including statistical analysis) absent or unclear.
Results: **Description** **& Content** **(1.5 – 2.0)**	• Logical and clear description of the experimental results with reference to tables and figures. No conclusions or interpretation of results presented. • Sufficient controls and replicates with appropriate data analysis (including statistics) performed correctly. Represents an extensive body of work.	• Clear description of the experimental results with reference to tables and figures. No conclusions or interpretation of results presented. • Sufficient controls and replicates with minor errors in data analysis (including statistics). Represents a large body of work.	• Clear description of the experimental results with reference to tables and figures. No conclusions or interpretation of results presented. • Sufficient controls and replicates with minor miscalculations in data analysis (including statistics) or inaccurate presentation of data. Represents a large body of work.	• Good description of the experimental results with reference to tables and figures in most instances. Generally, no conclusions or interpretation of results presented. • Sufficient controls and replicates with significant minor miscalculations in data analysis (including statistics) or inaccurate presentation of data. Represents an adequate body of work.	• Description of the experimental results lacks required detail and appropriate reference to figures and tables. Some conclusions or interpretation of results presented. • Sufficient controls and replicates. Inappropriate data analysis, including statistics, used in some parts or inaccurate presentation of data. Represents an adequate body of work	• Description of the experimental results lacks required detail. Some conclusions or interpretation of results presented. • Insufficient controls and replicates used. Major errors or omissions in data analysis. Represents an inadequate body of work.	• No description of the experimental results given. Lack of controls and replicates with appropriate data analysis (including statistics) performed. Represents an inadequate body of work.

Criteria (cont.)	Project Manuscript						
	10-9.0 **Outstanding**	**8.9-8.5** **Excellent**	**8.4-8.0** **Very Good**	**7.9-7.5** **Good / Average**	**7.4-6.5** **Fair**	**6.4-5.0** **Poor**	**4.9-0** **Very Poor**
Results: **Presentation** **(1.0 – 1.5)**	• Graph axes labelled and units of measurement given in parentheses. Legends explain the figures in sufficient detail that they can be understood without reference to the text. Tables clearly labelled with clear footnotes if necessary so self-explanatory. • No errors in presentation.	• Graph axes labelled and units of measurement given in parentheses. Legends explain the figures in sufficient detail that they can be understood without reference to the text. Tables clearly labelled with footnotes if necessary so self-explanatory. • A few minor errors in data presentation.	• Graph axes labelled and units of measurement given in parentheses. Not all legends explain the figures in sufficient detail. Most tables clearly labelled with footnotes if necessary so self-explanatory. • Some minor errors in data presentation.	• Most graph axes labelled and units of measurement given in parentheses. Not all legends explain the figures in sufficient detail to be understood without reference to the text. Most tables clearly labelled with footnotes if necessary so self-explanatory. • Some significant errors in data presentation.	• Results are poorly presented, most graph axes labelled and units of measurement given in parentheses. Not all legends explain the figures in sufficient detail that they can be understood without reference to the text. Most tables are self-explanatory, some errors in description or labels. • Some significant errors in data presentation.	• Results are poorly presented. Most graph axes not labelled or missing units of measurement. Most legends do not explain the figures in sufficient detail that they can be understood without reference to the text. Most tables are not self-explanatory and/or poorly labelled. • Major errors in data presentation.	• Results poorly presented or missing. Graph axes not labelled and units of measurement absent. Legends do not explain the figures in sufficient detail that they can be understood without reference to the text. Tables are not self-explanatory and/or poorly labelled. • Major errors in data presentation.
Discussion **(2.5 – 3.5)**	• Discussion is insightful, clear and logical. Extensive interpretation of the results with reference to previous scientific studies. Significance of findings extensively placed within the broader context of the field. • Comprehensive critical analysis of strengths and limitations of experiments. Future directions identified and clearly justified.	• Discussion is clear and logical. Appropriate interpretation of the results with reference to previous scientific studies. Significance of findings well placed within the broader context of the field. • Significant critical analysis of strengths and limitations of experiments. Future directions identified and justified.	• Discussion is clear. Appropriate interpretation of results, some reference to previous studies, but not always. Significance of findings placed within the broader context of the field. • Critical analysis of strengths and limitations of experiments. Future directions identified and justified.	• Discussion is mostly clear. Appropriate interpretation of the results with a few minor errors. Reference to previous scientific studies in most cases. Significance of some findings placed within the broader context of the field. • Some critical analysis of strengths and limitations of experiments. Future directions identified and mostly justified.	• Discussion is unclear in many areas. Some inappropriate interpretation of the results. Lacking reference to previous scientific studies. Significance of findings not placed within the broader context of the field. • Lacking some critical analysis of strengths and limitations of experiments. Future directions identified.	• Results are restated with little interpretation or reference to previous scientific studies. Major findings not placed within the broader context of the field. • No critical analysis of strengths and limitations of experiments. No future directions identified. • Misunderstanding of some major concepts.	• Results are restated with no interpretation or reference to previous scientific studies. Findings not place within the broader context of the field. • No critical analysis of strengths and limitations of experiments. No future directions identified. • Little understanding of most major concepts.

Criteria (cont.)	Project Manuscript						
	10-9.0 **Outstanding**	**8.9-8.5** **Excellent**	**8.4-8.0** **Very Good**	**7.9-7.5** **Good / Average**	**7.4-6.5** **Fair**	**6.4-5.0** **Poor**	**4.9-0** **Very Poor**
References **(0.5)**	• Predominant and comprehensive use of primary articles. Many articles presented from recent or seminal publications. • Citation style correct and consistent throughout. Reference list completely accurate with no errors.	• Predominant use of primary articles. Many articles presented from recent or seminal publications. • Citation style correct and consistent. Reference list complete, but a few minor errors.	• Predominant use of primary articles. Could have used more articles from recent or seminal publications. • Citation style consistent. Reference list incomplete, and some minor errors.	• Some over reliance on reviews or texts. Could have used more articles from recent or seminal publications. • Some references inconsistent between text and list with many minor errors. Citation style mostly consistent.	• Some over reliance on reviews or texts. Many articles not from recent or seminal publications. • Many references inconsistent between text and list with many minor errors. Citation style incorrect/ inconsistent.	• Significant over reliance on reviews or texts. Limited number of recent or seminal articles used. • Many inconsistencies between text and list. Some major errors. Inappropriate citation style used.	• Use of literature limited to a few articles and reviews. Poor attempt to explore literature. • Many references inconsistent between text and list. Many major errors.
Overall Presentation **(1)**	• No grammatical or spelling errors. Professional expression and style used consistently. All figures accurate, focused and informative.	• No grammatical or spelling errors. Professional expression and style used. All figures accurate, focused and informative.	• No grammatical errors but some spelling errors. Professional expression and style used. All figures accurate, focused and informative.	• Some grammatical and spelling errors. Professional expression and style used. Most figures accurate and informative.	• Some grammatical and spelling errors. Professional expression used. Most figures accurate, but not so relevant.	• Major grammatical and spelling errors. Professional expression used. Numerous errors in figures or largely irrelevant.	• Major grammatical and spelling errors. Language used not professional. Numerous errors in figures or largely irrelevant.

Supervisor Feedback to Neuroscience Honours Examiners

This form will accompany your student's Honours thesis to inform the examiners in their marking.

The student will NOT see this form, so we encourage a frank assessment.

Student Name	
Supervisor Name	

Please rate your student's abilities/effort/contribution to the following aspects of their Honours year. Different research areas will have quite different base expectations for these areas.

	Abilities/contributions relative to expectations for honours				
	Contributed little	Needed more than expected assistance	Performed as expected	Self-directed (top 25%)	Highly self-directed (top 10%)
Refining the research question *searching literature, providing new ideas/questions*					
Conducting the research *recruiting subjects, collecting data*					
Analysing & interpreting the data					
Writing up the thesis					

Please confirm the validity of the data in the thesis and specify the student's contribution and the contribution of others to the thesis research
Please comment on your student's responsiveness to feedback, commitment to the project, their participation in the life of the Department/Research Unit (attending seminars regularly, etc.), and the extent to which they took ownership of the project.
Please outline how the project was impacted by disruptions caused by COVID-19. Add any other comments that might be useful such as: problems that affected progress; the quality of the first draft; particular strengths or weaknesses; suitability for further research.

Instructions for preparing the Lay Summary

For this assignment, you are to write a 2000-character summary of your thesis work that is targeted at an educated audience without a scientific background. The text should be written in a style that is easy and straightforward to read with simple clear sentences. The study should not contain any jargon or anachronisms. It should use language and terminology that is familiar to the general public. The summary should be informative and communicate the 5 Ws: Who, What, When, Where, Why. The summary should convey the purpose of the research and the significance of the research. It should be written in a positive tone promoting the benefits of your research.

Overall, the lay summary should be:

• 2000 characters (including spaces) approximately 300-350 words.

• Clear and simple writing, without jargon, aimed at an educated lay audience.

• Technical terms should be explained.

• Should be informative: communicate who, what, when, where, why, and how.

• Should have a positive tone and communicate the significance of the research undertaken

• There should be no grammatical errors.

• There are no references in the lay summary.

• The summary should have the student's name and zID number and include a title suitable for a lay audience (not included in character count).

• Summaries should be uploaded to Turnitin as PDF files using the file name format:

"LASTNAME_zID_lay_summary.pdf" and emailed to neurhonoursadmin@unsw.edu.au

8. Administrative matters

Student enquiries should be submitted via student portal https://portal.insight.unsw.edu.au/web-forms/

9. Additional support for students

- The Current Students Gateway: https://student.unsw.edu.au/
- Academic Skills and Support: https://student.unsw.edu.au/academic-skills
- *Student Wellbeing and Health* https://www.student.unsw.edu.au/wellbeing
- UNSW IT Service Centre: https://www.myit.unsw.edu.au/services/students
- *UNSW Student Life Hub:* https://student.unsw.edu.au/hub#main-content
- *Student Support and Development:* https://student.unsw.edu.au/support
- *IT, eLearning and Apps:* https://student.unsw.edu.au/elearning
- *Student Support and Success Advisors:* https://student.unsw.edu.au/advisors
- *Equitable Learning Services (Formerly Disability Support Unit):* https://student.unsw.edu.au/els
- *Transitioning to Online Learning* https://www.covid19studyonline.unsw.edu.au/
- *Guide to Online Study* https://student.unsw.edu.au/online-study