

Welcome to Honours 2019!!



 MONASH University

Honours Coordinators:

Immunology Stream: A/Prof Margaret Hibbs
Margaret.Hibbs@monash.edu 9903-0921

Neuroscience Stream: Dr Viliija Jokubaitis
Viliija.Jokubaitis@monash.edu 9903-0880

Human Pathology Stream: A/Prof Justin Hamilton
Justin.Hamilton@monash.edu 9903-0125

Student Services Officer: Ms Joanne Mouser
CCS.Hons@monash.edu 9903-0784
(NB: Jo does not work on a Wed)

Congratulations on being accepted into Honours!

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CCS Honours Orientation Day Program

Time	Content	Speaker
10:00 - 10.30 am	Introduction: Course objectives, year outline, Alfred support services and mentorship	MH
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You've made a great choice coming to Alfred Research Alliance...



- A major medical research precinct
 - Basic & clinical
- Terrific breadth of research
 - Numerous weekly seminars across diverse disciplines
- Infrastructure and critical mass

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Communication

- Read your email regularly
 - We will use your student email address, so if you use a different one or change it, you **MUST** let Student Services know
 - Deadlines have been downloaded into your Moodle calendar
 - No excuse for not reading your email
- Check the CCS Honours website
 - <http://www.med.monash.edu.au/cecs/education/current-honours.html>

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BSc (Hons) vs BMS (Hons)

- 2 parallel but distinct courses
- Both courses are well aligned but there are slight differences - don't panic if one of your fellow students is doing something that you are not!!

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Unit guide

- BSc Honours Students:
 - The CCS Honours Handbook is your official unit guide
- BMS Honours Students:
 - Different handbook that you should now have
 - The CCS Honours handbook isn't your official unit guide but has important information about some of the coursework (DSC) that is unique to Honours at CCS
- ALL students need to read handbook
 - If this is not completed then you cannot access assessable components of the course

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Three Honours Streams at CCS

- Stream 1, Stream 2 and Stream 3
- Students divided between the three streams
 - Stream 1 = Margaret Hibbs
 - Immunology, Burnet, Hudson, ID
 - Stream 2 = Vilija Jokubaitis
 - Neuroscience, MAPRc
 - Stream 3 = Justin Hamilton
 - ACBD, Medicine, Baker, Diabetes, Surgery, MSHC
- This is an administrative split **ONLY**
- Students in all streams will conduct coursework together, certain oral assessment tasks may occur separately

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The Honours Year Course Structure

- Comprised of 2 units:
- BMH4100 (BMS4100 for BMS)
 - 75% of your total Honours mark
 - Relates to your research
 - Lit review, thesis & research seminar
- BMH4200 (BMS4200 for BMS)
 - 25% of your total Honours mark
 - Relates to theory subjects
 - Three coursework components
- Final Mark: BMH4100 + BMH4200

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BMH4100 (BMS4100 for BMS)

Research: 75% of your total Honours mark

- Lit review (7.5% of total Honours mark)
- Lit review seminar (not formally marked)
- Thesis (60% of total Honours mark)
- Final research seminar (7.5% of total mark)
- Oral thesis defence (not formally marked but your thesis mark can get adjusted up or down based on your performance)

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BMH4200 (BMS4200 for BMS)

Coursework: 25% of your total Honours mark

1. Stats course and assignment (7.5%)
2. Paper critique exam (7.5%)
3. Discipline-specific module (10%)

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1. Stats Course

- Worth 7.5% of total Honours mark
 - Excellent intro into stats and may help with statistical analyses of data generated during year
- Starts Thurs 7th March - 7 tutorials
 - Thursdays 10.00-11.30 am
 - Venue: Lecture Theatre, Level 5 Alfred Centre
 - Students must bring their own device
- Contact: Dr Galina Polekhina, SPHPM
Galina.Polekhina@monash.edu
- Assessment
 - 1) MCQ in class test: Thurs 11th April @ 10 am
 - 2) Assignment: due Mon 29th April @ 4 pm

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2. Paper Critique Exam

- Worth 7.5% of total Honours mark
 - exam format; unrelated to research project
- Several papers offered on different research topics with titles and abstracts removed
- Pick one paper to critique and will need to:
 - Provide a title that reflects the content of the article
 - Write a short 200 word lay abstract for the article highlighting major findings and significance of study
 - Write a critique answering designated questions
 - Suggest subsequent studies that would further the research in the paper
- Practise articles on Moodle; workshop in May (for BSc)
- BSc Exam: 12-4 pm Tues 11th June for BSc @ CCS
(BMS exam: 12-4 pm Tues 11th June @ Clayton)

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3. Discipline-Specific Module

- Worth 10% of your total Honours mark
- Technology Lecture Series
 - Weekly for 6 weeks starting Tues 5th March
 - flow cytometry, bioinformatics, neurobehavioural testing, imaging, gene modification, gene delivery
- Assessment
 - Each lecture will end with a quiz that is graded with best 5 out of 6 marks used = 4%
 - Poster presentation: Select a research paper that uses 1 or more technologies (needs to be ratified) and prepare and present a poster = 6%
Date: May 31st (details on selecting a paper & preparing a poster are provided in Handbook)

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Your oral presentations

- Seminar 1: Lit review seminar - 10 mins plus 5 mins questions (not formally marked)
- Seminar 2: End of year research seminar - 15 mins plus 5 mins questions (worth 7.5%)
- Prepare on PowerPoint
 - Don't make slides overly busy
 - Use animations
 - Ensure that your presentation works and is loaded onto the computer before the session
 - Keep to time
- Practise presentation skills in lab meetings

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Calendar of key events

Event	Due Date
Discipline-specific component	Post-lecture quizzes weekly from Thurs 7 th March
Stats test: MCQ	Thursday 11 th April at 10 am
Lit review + project outline	Tuesday 16 th April at 4 pm
Seminar 1	Mon 29 th April - Wed 1 st May
Stats Assignment	Mon 29 th April at 4 pm
Discipline-specific component	Submission of paper for ratification: Fri May 3 rd
Discipline-specific component	Submission of poster: Fri May 30 th at 4 pm
Discipline-specific component	Poster Presentation: Fri May 31 st
Written Critique Exam**	Tuesday 11 th June**
Thesis deadline	Thursday 17 th Oct at 4 pm
Research seminar	Mon 21 st , Tues 22 st , Thurs 24 th , Fri 25 th Oct
Thesis oral defense	Held over 2-weeks from Mon Oct 28 th

** Different venues for BSc(Hons) vs BMS(Hons)

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Literature review sessions (Lit review due April 16)

- Literature review writing class
 - Mon 4th March: 9-10.30 am (Tomas Zahora)
- Introduction to endnote**
 - Mon 4th March: 1.30-3.00 pm (Adam Clark)
 - **Bring Laptop with endnote installed & running
- Finding information for your lit review
 - Mon 4th March: 3-4.30 pm (Cassandra Freeman)

Venue for all sessions: Alfred Research Alliance
Seminar Room, 75 Commercial Rd

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Guidelines to writing your Honours thesis

- Thesis due Thursday Oct 17 at 4 pm
- Thesis worth 60% of total Honours mark

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Thesis write up #1

- Introduction - (10%)
 - Shorter (modified) version of literature review
 - Be critical, reference key literature
 - Don't gloss over controversies and discrepancies
 - Since this has already been marked once, be sure to incorporate the suggestions of your examiners
- Methods - (10%)
 - Clear justification and explanation of all methods used
 - Include statistical methods used to analyse data
- Results - (40%)
 - Write to your figures
 - It is definitely possible to get an H1 with negative results (we want to see logic...A did not work, thus we tried B...)
 - Figure legends should be understandable without reference to the text
 - Use appropriate statistical tests to analyse your data
 - Don't discuss results in this section

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Thesis write up #2

- Discussion - heavily weighted (30%)
 - Be critical of your own work
 - Relate your work to the literature, put into context
 - What would you do next?
- Organisation & Presentation (10%)
 - These should be easy marks
 - Check layout & general presentation, quality of figures, ensure that there are no typos or grammatical errors
- Must be YOUR work
- Follow rubric (see Handbook) to understand what the examiners are looking for
- Start early
 - A good place to start is the methods
 - Suggest you finish most lab work one month before your thesis is due

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What is the supervisor's role in writing the thesis?

- They can read it **ONCE** and only once
 - By all means plan & discuss it extensively
- They must only comment on a printed version
 - They cannot use track changes
 - If supervisor is away, they can use sticky notes on a PDF
 - Keep drafts from supervisor as we may request them...
- Their comments must be scientific in nature
 - They can't rewrite it and correct syntax etc
- If you have two supervisors, both must comment on the same version
- You can't pass it around the lab....

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This is your first year as a professional...



- The purpose of the lab is not to host Honours students.....
- You can expect close supervision but you can't expect to be everyone's #1 priority
- It is reasonable to make some contribution to the lab
 - Ordering, organising, making communal reagents
- Remember that any data you generate belongs to Monash and must remain with the University after you finish the Honours year
- Keep professional hours...
- One continuous year, no semesters
- Contact supervisor if ill or absent for any reason

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If you have problems.....?

1. Ideally your supervisor is your first port of call
2. We are here to help - drop us an email - subject Honours
 - Come and see us before there is a crisis
3. Highlight problems early (no use complaining to us about poor supervision in October!!)
4. There are alternative sources of pastoral care: e.g. Julie McMullen (Baker IDI), Raffi Gugasyan (Burnet), Mark Hedger (Hudson), etc. (refer to handbook)

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Prize for the top Honours student at CCS

Robyn O'Hehir Medal
Cash prize of \$1000

Prof O'Hehir AO has made an outstanding contribution to health and medical research at the Alfred and CCS



Have a great year!!

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Panel discussion: recent honours and current PhD students experiences



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Alfred Research Alliance Animal Services

Facility/Department	Animal Facility (AMREP AS)
Summary of the Facility's capabilities	Production, care and husbandry of animals used in approved Animal Ethics projects; Basic animal training; Animal welfare matters; Technical training and surgical assistance; Support with AEC applications.
Key contact persons	<p><u>General Manager</u> Debbie.Ramsey@bakeridi.edu.au Ph: 8532 1484</p>  <p><u>Veterinary</u> Fenella.Muntz@bakeridi.edu.au Ph: 8532 1225</p> 
Induction processes to gain facility access	<p>Four steps are required to be completed:</p> <ol style="list-style-type: none"> 1. Submission of a request for induction; 2. A guided tour of the facility including specific areas (PAC, MICU); 3. A hands on training session within the facility; 4. An online Training Module. <p>Only after all components are successfully completed will access to the animal house be enabled, as well as access to the AEC submission system and the online animal and service order system known as EthicsAppOrder.</p>

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Monash Preclinical Imaging Facility

Facility/Department	Alfred Research Alliance Preclinical Imaging Facility
Summary of the Facility's capabilities	The Alfred Research Alliance Preclinical Imaging Facility houses a Mediso NanoScan PET/CT, FLECT, and a state-of-the-art 9.4 Tesla Bruker MRI. This comprehensive suite of imaging equipment facilitates cutting-edge research into functional and structural studies of disease.
Key contact person	<p>Dr David Wright Head of Preclinical Imaging David.Wright@monash.edu Ph: 9903 0140</p> 
Induction processes to gain facility access	All new users must be inducted before they are allowed to enter the facility

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Alfred Research Alliance Flow Cytometry

Facility/Department	A+ Flow Cytometry Core Facility	
Summary of the Facility's capabilities	Comprehensive training and education, experimental design and protocol guidance in flow cytometry. Sophisticated multi-laser cell-based analysis with nine cell analysis platforms; Animal and human cell sorting in PC2 and PC3 environments with four high throughput cell sorters; AMNIS cell imaging flow cytometry	
Key contact person	Mr Geza Paukovics geza.paukovics@burnet.edu.au amrepflow@burnet.edu.au Ph: 9282 2246 (desk); 9903 0601 (lab)	
Induction processes to gain facility access	Please follow induction-licensing steps as outlined on our AMREPFLOW website: https://www.amrepflow.org.au/ https://www.amrepflow.org.au/licensing-steps/introduction-to-the-training-at-amrepflow	

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A+ Flow Cytometry: Staff



L->R: Magdaline Costa, Geza Paukovics, Eva Orlowski-Oliver, Steven Lim

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Monash Imaging Platform

Facility/Department	Monash Micro Imaging @ AMREP
Summary of the Facility's capabilities	Advanced microscopy. Confocal, Super Resolution. Fluorescence based imaging. Time-Lapse live cell imaging
Key contact person	Stephen Cody Stephen.Cody@monash.edu Ph: 9903 0142
Induction processes to gain facility access	Contact the Facility for induction processes and to discuss and plan your experiments. Imaging is VERY time consuming, don't leave it until the last couple of months, plan early.



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Monash Imaging Platform: Staff



L->R: Chad Johnson, Betty Kouskousis, Iska Carmichael, Stephen Cody

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Biostatistics Consulting Platform

Facility/Department	Biostatistics at Alfred Research Alliance	
Summary of the Facility's capabilities	Biostatisticians provide consulting and collaborative assistance with: Design of experiments, clinical trials and other studies including sample size calculations and the development of proposals and protocols; Statistical analysis and reporting of results; Selection of appropriate biostatistical methods including the preparation of statistical analysis plans for research projects; Biostatistical appraisal of protocols; Research into new or specialised biostatistical methods; Statistical software advice and guidance	
Contact person for FMNHS Researchers at the Alfred	A/Prof John Reynolds John.Reynolds@monash.edu Ph: 9903 0641	
Induction processes to gain facility access	Limited access for Honours students	

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Monash Bioinformatics Platform

Facility/Department	Monash Bioinformatics Platform at CCS	
Summary of the Facility's capabilities	Provides expert training and access to bioinformatics and data analysis capabilities in the genomics and proteomics areas, which includes: Bulk and single cell RNA-seq; Microbiome profiling; ChIP-seq / ATAC-seq; Variant analysis; Methylation analysis; Whole genome assembly and annotation; High throughput profiling of the proteome; Protein structure analysis; Custom analysis pipeline development	
Key contact person	Dr Nick Wong Nick.Wong@monash.edu Ph: 9903 0042	
Induction processes to gain facility access	N/A	

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Monash Histology Platform

Facility/Department	Monash Histology Platform	
Summary of the Facility's capabilities	Professional histology services as well as specialist equipment and consumables for 'do-it-yourself' histology. Equipment includes a dissection and cassetting area, tissue processor, paraffin embedding unit, microtomes, H&E staining facilities and a cryostat for frozen sectioning.	
Key contact person	Mr Ali Shad Ali.Shad@monash.edu Ph: 9903 0637	
Induction processes to gain facility access	All users of the Monash Histology Platform are required to pre-register and undergo appropriate training induction. A dedicated Histology Officer is also available to undertake professional histology services and can assist with experimental design.	

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