WESTERN SYDNEY
UNIVERSITY

MD PROJECTS

AN OVERVIEW

TYPES OF PROJECTS POSSIBLE

Projects can be Research, Service Learning or Education focused, and will be developed within one of six streams: Biomedical Sciences, Clinical Medicine, Community Health, Health Innovations, Indigenous health, Medical education, or Rural Health (Supervisor Guide page 5).

SCOPE OF PROJECT

Your project needs to be proportional in size and scope, and generally feasible within a 360 hour time-frame, inclusive of writing up. The project can be a secondary analysis of existing data and/or nested within a larger project. Each project must be unique, but students may use the same data sets to answer different questions.

PROJECT LOCATION

Your project can be hospital, laboratory, community or university based in metro or rural settings. Ethical approval will be required through the relevant committee (WSU, AH&MRC or LHD either LNR or REGIS) before the commencement of any *research* project involving humans or animals.

UNIVERSITY SUPPORT

The University will provide students with training in project management and basic research skills, project consultation and support, flexible access to learning modules, advice on data analysis and training on preparing written reports, oral presentations and conference posters.

STUDENT TIME ALLOCATION

During the MD course, students will collectively have project focused time allocated in years 3 and 4. In Year 3, all students have a 5-week block allocated to supervised project work in one of seven rotations. In Year 4, students continue supervised project work in one of four 5-week blocks as allocated, or as per rural placement schedule.
Metro students submit their final report at the end of Year 4, while students on rural placements submit in first half of Year 5.

SUPERVISOR EXPECTATIONS

Project Commencement:

- Ensure that ethics, and any relevant approvals and requirements are in place.
- Guide students towards developing a sound and feasible Learning Plan.
- Review, provide feedback on at least one complete draft Learning Plan before submission for assessment.

During the Project

- Facilitate access to data collection, including access to services, participants, equipment, specimens, or health records as appropriate to the Project.
- Help students to identify the specific skills they must learn to conduct and complete their project and select the appropriate online module and/or resources.
- Support students in conducting their projects to a high quality, according to protocol and agreed timelines, and ensure accepted principles of ethical conduct relevant to the Project are followed.

Throughout the Project

- Meet with students regularly throughout the life of the Project
- Guide students in the Supervisor's area of interest and expertise.

Completing the Project

- Review and provide feedback on at least one draft of the Final Report before submission for assessment.
- Nominate a person with suitable qualifications and content knowledge to assess the report according to MD Project marking criteria.

STUDENT SUPERVISION

You can elect for one or more medical students at the same, or different times, to work with you on projects.

I'M INTERESTED - WHAT DO I DO NOW?

Refer to the following page for examples of projects and timelines. Complete the MD Project Proposal template and email to MDProject@westernsydney.edu.au

You will be on the way to a mutually rewarding research partnership.

FOR MORE INFORMATION EMAIL

MDProject@westernsydney.edu.au

WESTERN SYDNEY
UNIVERSITY

LABORATORY BASED RESEARCH PROJECT

Calcium Handling by Dystrophic Muscle Fibres

By the end of Year 2:
Supervisor proposes component of existing study to be approved by MD Project Committee.
Supervisor submits a proposal for a Project. If more than one student, then related but unique research areas are determined.
In Year 3 (5 weeks):
Student completes Laboratory Induction and, with the Supervisor and laboratory staff, gains experience and skills in general laboratory practice, understanding of methods of data collection and analysis/interpretation; develops some understanding of ethical issues around the use of animals and/or human subjects in research. Student writes and submits a learning plan, a literature review and a progress report and makes a brief presentation.
Supervisor provides feedback on Learning Plan and brief presentation and submits Progress Report.
In Year 4 (4 weeks):
Student undertakes laboratory-based research on calcium handling in dystrophic muscle; meets regularly with supervisor and laboratory staff to discuss their Project, data interpretation etc.; submits draft MD project report.
Supervisor reviews draft report and provides feedback. Supervisor submits Progress Report.
Student completes and submits Final Report and ePoster.
In Year 5:
Student makes a brief ePoster presentation at Year 5 conference.

RURAL MEDICAL EDUCATION PROJECT

Telemedicine Module for Health Professions

By the end of Year 2:
Supervisor at rural clinical school identifies gap in teaching program in rural medicine skills; proposes design, piloting and evaluation of new teaching module as a project. Project is approved by MD Projects Committee.
Student Is allocated Project, meets with Supervisor.
In Year 3 (5 weeks):
Student reviews literature on telemedicine in Australia, best practice in teaching telemedicine and interprofessional learning; after mapping existing curriculum, designs new content to fit with current program delivery and evaluation plan.
Supervisor reviews Learning Plan and brief presentation and submits Progress Report.
In Year 4 (4 weeks):
Student develops new teaching activity; pilots with small group of rural students and supervisors; gathers evaluation data; drafts report.
Supervisor reviews draft report, provides feedback and submits Progress Report.
Student completes and submits Final Report with new curriculum materials and ePoster.
In Year 5:
Student presents ePoster at rural health conference.

QUALITY IMPROVEMENT PROJECT

Clinical Audit of Referrals to Pulmonary Rehabilitation for Patients with Mild COPD

By the end of Year 2:
Supervisor identifies need to evaluate extended service. Relevant ethics approval is obtained from LHD. Project is approved by MD Projects Committee.
Student is allocated Project, meets with Supervisor.
In Year 3 (5 weeks):
Student conducts literature review on quality indicators and evidence base for pulmonary rehabilitation services; completes detailed Learning Plan; pilots data collection tool and starts reviewing records and interviewing staff.
Supervisor provides feedback on Learning Plan and brief presentation. Supervisor submits Progress Report.
In Year 4 (4 weeks):
Student completes data collection; thematic analysis; writes draft report.
Supervisor reviews draft report, provides feedback and submits Progress Report.
Student submits Final Report and ePoster.
In Year 5:
Student makes a brief presentation of ePoster at Year 5 conference.

SERVICE LEARNING PROJECT

A Disability Support and Housing Service Identifies a Need to Review Services to Culturally and Linguistically Diverse Clients

By the end of Year 2:
Service Manager and Academic Supervisor plan evaluation using client records and interviews. Proposal is approved by MD Projects Committee.
Student is allocated Project.
In Year 3 (5 weeks):
Student starts meeting regularly with Manager and Supervisor; reviews literature on quality indicators for CALD disability services; writes detailed Learning Plan; collects data from records; finalises interview questions; writes progress report and makes a brief presentation.
Supervisor reviews Learning Plan, provides feedback and completes progress report.
In Year 4 (4 weeks):
Student continues meeting regularly with Manager and Supervisor; completes interviews; analyses all data and writes draft report.
Supervisor reviews draft report and provides feedback. Supervisor submits Progress Report.
Student submits Final Report and ePoster.
In Year 5:
Student makes a brief Poster presentation at community forum.

CLINICAL RESEARCH PROJECT

Prospective Assessment of Patient Reported Outcomes After Joint Replacement Surgery

By the end of Year 2:
Supervisor proposes component of existing prospective cohort study to establish outcomes registry. Project is approved by MD Projects Committee.
Student is allocated Project, meets with Supervisor and Research Officer.
In Year 3 (5 weeks):
Student reviews and appraises patient outcome measures following joint replacement; completes plan for targeted analysis of registry data; trains in use of EQ_5D 5l; Harris Hip Score; Oxford Knee Score; starts collecting data from patients at agreed time points.
Supervisor provides feedback on Learning Plan and brief presentation. Supervisor submits Progress Report.
In Year 4 (4 weeks):
Student completes data collection; quantitative analysis; drafts report.
Supervisor reviews draft report and provides feedback. Supervisor submits Progress Report.
Student submits Final Report and poster.
In Year 5:
Student gives brief ePoster presentation at Hospital forum.

INDIGENOUS RESEARCH PROJECT

Indigenous Students for the MD Program

By the end of Year 2:
Supervisor develops project with the Indigenous Engagement team; proposes two students to assist the team. Project is approved by MD Projects Committee. Supervisor commences ethics.
Students nominate project; meet with the Indigenous Health team.
In Year 3 (5 weeks):
Student 1 starts literature review for education success in Indigenous students.
Student 2 starts review of policies and practices for Indigenous students' admission to a medical degree; identifies successful programs.
Students consider quantitative and qualitative data collection tool for pre-med students and community.
Supervisor reviews Learning Plans and brief presentations and provides feedback. Supervisor submits Progress Reports.
In Year 4 (4 weeks):
Students meet regularly with supervisors; attend Koori Knockout; collect data from community and prospective students; commence data analysis and draft final reports.
Supervisor reviews draft reports and provides feedback to students. Supervisor submits Progress Reports.
Students submit Final Reports and ePosters.
In Year 5:
Students submit to LIME publication; present ePosters for hospital and SPHERE showcase.