MEDI 7056 MR SCREENING

Credit Points 10

Legacy Code 401328

Coordinator James Nol (https://directory.westernsydney.edu.au/search/name/James Nol/)

Description MR Screening is a core subject in the course of Advanced Imaging. Magnetic Resonance (MR) Screening tests are essential to categorise patients' conditions for faster and reliable patient management. In a real clinical environment, less than 10 per cent of MR Screening patients will need to go for a full Magnetic Resonance Imaging (MRI) examination. This subject will provide students with a detailed understanding of the rationale and principles of setting up MR Screening protocols. It will demonstrate the determinant criteria for the setup of the screening protocols in collaboration with the referring clinical team. Students will learn to create research programs to validate the effectiveness of the screening protocols. It is expected that students will develop the ability to recognise normal anatomy, identify common pathologies and be able to provide diagnostic solutions and/or develop new MRI algorithms for clinical problems. They will have the ability to either produce, request or recommend the proper sequence and the best method of operating the MRI equipment for the anatomical region in question. Students will have 2 weeks of clinical training in an MRI clinical site under the supervision of a WSU MRI clinician.

School Medicine

Discipline Radiology

Student Contribution Band HECS Band 3 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 7 subject

Co-requisite(s) MEDI 7055 MR Neurology - Head Neck and Spinal Imaging
MEDI 7054 MR Musculoskeletal Imaging
MEDI 7053 MR Body and Pelvis Imaging

Restrictions

Successful completion of 80 credit points and students must be enrolled in 4767 Master of Advanced Imaging (MRI).

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Critique the rationale for setting up Magnetic Resonance (MR) screening protocols and the pros and cons of the screening protocol
2. Create effective MR Screening protocols to provide confident diagnostic outcomes without the lengthy scan time
3. Evaluate the safety requirement of a dedicated “Multiposition” MRI room in comparison with a traditional “Bore” technology
4. Streamline workflow and patient centred care to facilitate Open Access to dedicated MR screening protocols
5. Explore future research projects to add to the list of MR Screening tests in collaboration with specialists from different clinical specialities
6. Employ a reflective approach to recommend and establish an MR screening protocol based on the patient condition mentally, physically and clinically during clinical placements
7. Review MR Screening cases to provide image Interpretation with a high-level of diagnostic confidence

Subject Content

1. Rationale and principles for setting up screening protocols of: Brain Stroke, Appendix, Musculoskeletal, Renal Colic, Biliary Colic, Prostate, Breast Screen.
2. Advanced anatomy and normal variants as well as identifying the anatomy of abnormal organs and the different pathologies associated with different pathologies.
3. Pros and cons of Magnetic Resonance Imaging (‘MR’ or ‘MRI’) screening tests.
4. MR screening protocol setup guidelines
5. Research a program to validate the effectiveness of the screening protocol to additional clinical indications.
6. The relationship between Evidence Based Imaging and MRI.
7. Clinical Training via 3 different pathways

- Medical Officer – Image Interpretation and observation of practical work and Interaction with an MRI team.
- Medical MRI Practitioner – Hands on Practical training and basic Image interpretation.
- Allied Health – Interaction with the MRI Operations team, close observation of the operation and patient management and basic Image interpretation.

Special Requirements

Legislative pre-requisites

Note: Due to covid restriction, the Working with Children Check (WWCC) and Student Undertaking has been temporarily been removed.

Special Requirements - NSW Health Legislative Prerequisites ~~Pre-requisites~~

Student Compliance Information for all Health-Related Placements

Prior to enrolling in this subject, students must have submitted a Student Undertaking Form and undertake to apply for a National Police Check, which is required to be submitted before placement, and a Working with Children Check Student Declaration. Use the link to the Special Requirements webpage below for more information.

To be eligible to enrol in this subject and complete any required health-related placements or experiences, students must meet Western Sydney University program requirements as well as any special, legislated, or policy-mandated requirements.

Western Program Requirements

Visit the Special Requirements webpage for details about your program.

Special Requirements (https://www.westernsydney.edu.au/currentstudents/current_students/enrolment/special_requirements/)

Mandatory NSW Health student placement policy requirements

To be able to undertake placement in any NSW Health facility you must be assessed as compliant with NSW Health student placement policy in the first year of your program, regardless of when you expect to go on your first placement. Access and read the NSW Student Compliance Information Booklet.

NSW Student Compliance Information Booklet (https://issuu.com/uwspublications/docs/wsu_student_compliance_booklet_2020_v6/)

Please ensure that you

1. Find your existing National Police Check or apply for one
2. Gather documentary evidence of your vaccination history
3. Print and compete all relevant NSW Health forms relevant to the campus you are enrolled at or online enrolment requirements
4. Follow booklet instructions on how to have your compliance documents assessed by NSW health staff.

International students have additional requirements; the link to the booklet will inform you of these requirements.

School Requirements

Contact your School for further details regarding your School's requirements, if any, such as

- If you live outside of NSW or Australia and need to meet your state, territory or country's compliance requirements
- If you need to meet different state, territory or country compliance requirements.
- NSW Working with Children Check (WWCC) or other state equivalent, valid for your entire program.
- Current approved first aid certificate valid for your entire program - approved program providers can be found at the Government Training website
- http://training.gov.au (http://training.gov.au/)
- Other non-health related requirements.

Student Compliance Resources are also available on the Placements Hub web page (NSW students only)

https://www.westernsydney.edu.au/learning_futures/home/placements_hub/placements_hub/student_compliance (https://www.westernsydney.edu.au/learning_futures/home/placements_hub/placements_hub/student_compliance/)

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task
Applied Project	1,500 words	30	N	Individual
Literature Review	2,500 words	30	N	Individual
Reflection	500 words each	40	N	Individual

Teaching Periods

Autumn (2024)

Online

Online

Subject Contact James Nol (https://directory.westernsydney.edu.au/search/name/James Nol/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=MEDI7056_24-AUT_ON_2#subjects)