

Weekly Career News

Term 3

Tuesday 6 September 2016

CAREERS IN MEDICAL RADIATION SCIENCE

Are you fascinated by the human body? Do you love science? Would you like to work in a job where you can diagnose and treat human diseases? If so, you may enjoy studying one of the following career areas:

- Radiography/Medical Imaging
- Nuclear Medicine
- Radiation Therapy
- Medical Sonography

The following information has been taken from Charles Sturt University and the University of South Australia:

Radiography/Medical Imaging: As a radiographer, you will be concerned with producing high quality medical images of the human body for medical diagnosis through the operation of specialist equipment, such as administering ionising radiation (x-rays), or MRI pulses to the patient.

Nuclear Medicine: involves using biological tracers (radiopharmaceuticals) for the diagnosis and treatment of various diseases. The specialisation details the administration and imaging of these radiopharmaceuticals within the patient to detect physiological abnormalities and deliver appropriate treatment.

Radiation Therapy: This involves the design and delivery of radiation treatment plans for people diagnosed with cancer and other pathological conditions.

Medical Sonography: is the application of medical scanning which uses high frequency ultrasound waves to produce diagnostic images. Sonography assists in the detection of foetal abnormalities, vascular disease and other acute and chronic conditions.

What subjects should I study at school? Physics, Mathematical Methods, Biology and Chemistry are recommended. You should check the prerequisites for each university.

CAREERS IN MEDICAL RADIATION SCIENCE

Where can I study?

Charles Sturt University, Bachelor of Medical Radiation Science, Wagga Wagga, NSW

- After the completion of first year, you can choose which specialisation you want to undertake from Medical Imaging, Nuclear Medicine and Radiation Therapy, <http://bit.ly/1JCx8Vu>

Bachelor of Medical Imaging, Deakin University, Geelong

- This is a new course and has not been accredited yet. Students will undertake 2500 clinical hours of placement, <http://bit.ly/2bH6CTJ>

Bachelor of Radiation Sciences/Master of Radiation Therapy, Monash University, Clayton

- Students complete the 3-year Bachelor of Health Science with a specialist stream in Radiation Sciences. They will then complete the Master of Radiation Therapy, <http://bit.ly/1QlbkQa>

Bachelor of Radiography and Medical Imaging (Honours), Monash University, Clayton

- This 4-year course focuses on radiography and medical imaging, and graduates develop the skills to be registered radiographers, <http://bit.ly/1NmAMGA>

Bachelor of Applied Science (Medical Radiations), RMIT, Bundoora

- You can enroll in one of the following three streams- medical imaging, nuclear medicine, or radiation therapy, <http://bit.ly/1GuuORT>

Bachelor of Medical Sonography/ Graduate Diploma of Medical Sonography, CQUniversity, Melbourne Campus

- This is the only undergraduate/graduate Medical Sonography course in Australia, <http://bit.ly/1FvexX0>

CAREERS IN MEDICAL RADIATION SCIENCE

Key Websites for more information:

- Australian Institute of Radiography, www.air.asn.au/career.php
- A Career in Radiation Oncology, <http://bit.ly/1grfEsw>

Meet Hayley Maggs,
Peter McCallum Cancer Centre

Bachelor of Science/Master of Medical Radiations
(Radiation Therapy), Monash University

Radiation therapy is a highly technical field using cutting edge technology to provide the best care possible to cancer patients. We use high energy X-rays to treat all different types of cancer in both the radical and palliative setting.

There are two areas of radiation therapy, which you get to rotate through. Firstly there is planning. This is where we determine how to deliver the radiation to the area we want while sparing all the surrounding healthy tissue and organs. We do this by positioning the patient in a special way depending on what we are going to treat and take a CT scan. Then using computer programmes we determine the different angles the radiation is going to enter the patient's body so that we treat the entire target area. Planning is very technical and new techniques are constantly being developed. It's a very exciting area!

The second part of radiation therapy is treatment. This is where we use huge machines called linear accelerators to deliver the radiation. Patients may be on treatment once or for a number of weeks depending on what we are treating. This means that you develop real relationships with a wide variety of patients and you really feel like you are making a huge impact on their life. I love treatment for this reason (and it's also not unusual to receive chocolates and cakes from the patients on a daily basis!).

Radiation therapy is an extremely rewarding career and I'm learning new things every day. You can travel all over the world working as a RT from England to the Middle East. To anyone who was thinking about pursuing a career in radiation therapy I encourage you to contact a radiation therapy centre, they are always more than happy to show people around their department and you really get to see the amazing work that we do.

CAREERS IN MEDICAL RADIATION SCIENCE

Meet Joseph Alvarez

Bachelor of Medical Radiation Science, University of South Australia
Master of Medical Imaging Science, University of Sydney

What was your course like? Pretty challenging and tough if you're working part-time during university. It was a four-year course, with the last two years basically working full-time at hospitals and clinics around the state. That said, you do plenty of practical work and it's really enjoyable if you'd like to work with patients and other health professionals.

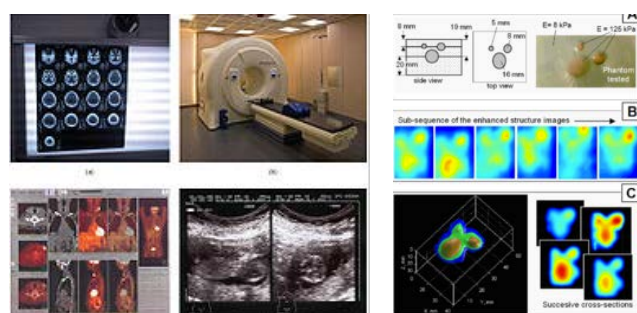
What did you enjoy about your course? I enjoyed the contact hours at the hospitals and feeling like you were already working in the field. The pathology and anatomy subjects with the cadavers were also interesting.

What are you doing now in your graduate position? I am currently working as an MRI Technologist/Radiographer in Adelaide/Whyalla.

What do you enjoy about your job? I enjoy:

- Working at a variety of hospitals and clinics
- Plenty of interactions with patients and doctors give you a really good feeling when you help to diagnose a client's condition/injury.
- Plenty of travelling between regional and city hospitals.
- The on-call rates and travel allowances are very good, so if you're willing to work you can earn quite a bit of cash straight out of university.

The main thing I enjoy though is teaching university students, as you get quite a few during work.



VOCATIONAL & HIGHER EDUCATION NEWS

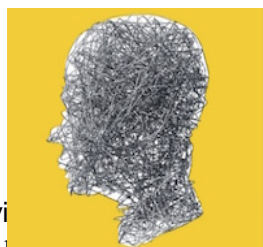
Huge demand for bilingual law graduates: The following is taken from Australia National University – “The globalization of Australia’s professional services firms has created unprecedented demand for law graduates with Asian language skills. With Asian economies expected to account for almost 50% of global economics output by 2025, this is a trend that is set to continue well into the next decade.

Top tier employers such as Westpac, and PricewaterhouseCoopers, are increasingly calling for Asia literate graduates to meet the growing demand for global talent in the Asian century. Bilingual law graduates are in short supply and as a result, are far more employable. Recent reports from online Australian publication ‘Lawyers Weekly’ suggest that, if law graduates want to gain a competitive edge over their peers, the best way to get ahead is by combining their law degree with an Asian Language, <http://bit.ly/1Lhe3G0>

Science news: Be inspired by the latest stories featured on RiAUS – Australia’s Science Channel. Some of the topics covered this week include:

- How global warming will affect coffee
- Vote for your favourite SCINEMA film and win a GoPro before the 9th of September.
- Tassie Devils may be rapidly evolving a response to the deadly Devil Facial Tumour Disease
- A new drug for Alzheimer’s disease has shown promising results after early human clinical trials.
- Journey to Mars

Access the stories at this link - <http://bit.ly/2cgYwhk>



Envi...nts
will be able to choose from the following minors in the Bachelor of Environmental Science – Environmental Biology, Environmental Chemistry, Geoscience (Engineering), and Geospatial Science. For information about the course, go to <http://bit.ly/2bY0McG>

VOCATIONAL & HIGHER EDUCATION NEWS

News from Monash University

- **Science subject bonus:** Students who study more than one Unit 3+4 science subject may be eligible for subject bonus points, which may raise their final ATAR. For information, email Kim Aitken at kim.aitken@monash.edu
- **Science precinct tour:** If you missed Open Day, you can book a Monash Science precinct tour during the September holidays, <http://bit.ly/2c5RQ6U>
- **Free VCE exam preparation lectures-** Science, Physics, Chemistry, Biology, Maths Methods and Specialist Maths, <http://bit.ly/2c5RQ6U>
- **New Bachelor of Arts/Masters vertical double degrees:** In four years you can complete a Bachelor + Master degree instead of 5. Your Master program will relate to your undergraduate major specialisation, <http://bit.ly/2cAXcJB>
- **New Indigenous Entry Scheme:** This new scheme guarantees Indigenous applicants an offer into a range of course with an ATAR of 50+, the required course prerequisites, and completion of a supplementary form, <http://bit.ly/2bNJhyA>
- **ENGenUty 2016:** for Year 10 girls who are interested in engineering and information technology (IT). This event will be held at the Clayton campus on Wednesday 28 September. For information and to register, go to <http://bit.ly/2b9OUYn>
- **Take CTRL:** This is a full day event for students in Years 11 and 12 who are passionate about IT. It will be held on Tuesday 27 September at the Clayton campus. For information and to register, go to <http://bit.ly/2c5Tdm8>
- **Bachelor of International Business:** This course is offered in trimesters meaning students complete the degree in two years as opposed to three. From 2017, students will be able to combine the degree with a Bachelor of Arts and complete both courses in three years as opposed to four, <http://bit.ly/1TU0W1n>

UPCOMING EVENTS

Science in the City: RMIT invites students and parents to tour their start-of-the-art learning laboratories at the City Campus on Monday 19 September between 11am – 2pm. RMIT offer science courses in biology, biotechnology chemistry, environmental science, food science, nanotechnology, and physics. Please register at <http://bit.ly/2brJOpi>

Have you considered Nuclear Medicine? RMIT has arranged free workplace visits for Year 11-12 students interested in finding out more about the role Nuclear Medicine Technologists play in the investigation, diagnosis, treatment and monitoring of disease. The workplace visits will be held Thursday 22 September and Friday 23 September at St Vincent's Hospital or the Austin Hospital. For information and to register, go to <http://bit.ly/2aTHyIX>

Are you in Years 7 – 12? Do you want to work with animals? Healesville Sanctuary and Werribee Open Range Zoo present a day of activities where you get to work alongside their Zoo Keepers and Vets. You will be able to: help with food preparation, assist with animal enrichment , listen to Keeper talks, do animal health checks and handle animals safely.

Healesville Sanctuary events

- Zoo Keeper for a Day: 20, 21, 27 & 28 September, <http://bit.ly/1K3ILl3>
- Vet for a Day: 22 & 29 September, <http://bit.ly/1K3ILl3>

Werribee Open Range Zoo

- Zoo Keeper for a Day: 20, 22, 26 & 28 September, <http://bit.ly/1vornA4>



11. RMIT Flight Training Open Day, Point Cook, RMIT, <http://bit.ly/2bPdU7o>

UPCOMING EVENTS - SEPTEMBER

campus, <http://bit.ly/29YsVhe>

UPCOMING EVENTS - SEPTEMBER

13 - 15: ConocoPhillips Science Experience, Swinburne University, Hawthorn, <http://bit.ly/2ap3Cau>

13 - 15: Advice Night, Swinburne University, Hawthorn (13) and Wantirna (15) campuses, <http://bit.ly/2b6ZCfA>

14: Information Evening, Macleay College, Melbourne, <http://bit.ly/2c6QwOG>

15: Portfolio Information Evening, Deakin University, Melbourne, <http://bit.ly/2aHzMyP>

19 - 25: NIDA drama workshops, Melbourne, <http://bit.ly/22yVXtr>

19: Science in City Lab Tour, RMIT, City, <http://bit.ly/2brJOpi>

20 - 22: ConocoPhillips Science Experience, Federation University, Gippsland, <http://bit.ly/2ap3Cau>

21, 22: School Holiday Workshops, Macleay College, Melbourne, <http://bit.ly/2c1mKfE>

22 - 23: Nuclear Medicine Workplace Visits – St Vincent's Hospital, RMIT, <http://bit.ly/2aTHyIX>

22, 23: Audition Masterclass, Federation University, Ballarat, <http://bit.ly/29IQOcx>

26 - 27: Monash Art, Design and Architecture (MADA) folio workshops, <http://bit.ly/2bwg0J5>

26, 27 & 28: Audition skills & folio presentation workshops, Box Hill Institute, <http://bit.ly/2bmewgE>

27: Take CTRL, Monash University, Clayton campus, <http://bit.ly/2c5Tdm8>

28: Industry Experience Day, Academy of Interactive Entertainment, Melbourne, <http://bit.ly/2bfaG92>

28: ENGenuITy 2016, Monash University, Clayton Campus, Year 10 female students, <http://bit.ly/2b9OUYn>

KEY RESOURCES

Myfuture: students will be able to explore courses, occupations, take a mini career quiz and an entrepreneurship quiz, and develop job-seeking skills, <https://myfuture.edu.au/>

The Good Careers Guide: You can search over 400 different occupations narrowed down by the field or type of work you would like to do in the future (e.g., helping/advising), <http://bit.ly/2a7Qr0Z>

Good Universities Guide: You will be able to find courses, compare university ratings, search for scholarships and explore careers, <http://bit.ly/1N6a3Pk>

Australian Apprenticeship Pathways: You will be able to undertake apprenticeship aptitude tests, find local apprenticeship and group training centres, and learn about different trade occupations, www.aapathways.com.au/

Defence Jobs: You can explore occupations, courses and technical trades in the Army, Navy and Air Force, www.defencejobs.gov.au/

Careers in Science and Engineering, <http://bit.ly/24hW6WV>

Careers With Code: careers in computer science and gaming, <http://bit.ly/1UgX7Vf>

I Choose Technology: careers in information and communication technologies, <http://bit.ly/2adStKy>

Chartered Accountants: careers in chartered accountancy, <http://bit.ly/2almabl>

Careers in Horse Racing: <http://bit.ly/1Pfx4xW>

Rail Careers: <http://railcareers.net.au/>

A Life Without Limits: careers in surveying, <http://bit.ly/1I8GVkL>

KEY RESOURCES

Bullseye posters: You can explore occupations related to your favourite school subjects, <http://bit.ly/1svwa98>

Careers in Primary Industries/Agriculture: <http://bit.ly/1Hm0jfk>

Career Harvest: Careers in Agriculture, Food and Fiber, <http://bit.ly/1f0m8jW>

Rural Careers Australia: You can explore careers in agriculture, horticulture, animal care and land management, www.ruralcareers.net.au/

Maths Adds: view career profiles of people working in interesting maths careers, and also find out about how maths is used in careers such as hairdressing, building and nursing, <http://bit.ly/2anSARy>

Maths: make your career count: explore careers in mathematics such as electrician and meteorologist, <http://bit.ly/1WWajoe>

My Skills: You can search for and explore vocational courses across Australia, learn about in demand jobs and watch videos of young people who have completed vocational training, <http://bit.ly/1D8uek7>

SkillsOne: you can watch videos about different trades, www.skillsone.com.au/

QILT: You can compare independent student ratings about different universities and courses, www.qilt.edu.au

Australian Dental Association, careers in dentistry and dentistry specialisations, <http://bit.ly/2af2xjn>

Exercise and Sports Science Australia, careers in exercise and sports science, <http://bit.ly/2abl8RG>

Optometry Australia, careers and courses in optometry, <http://bit.ly/2aCiLpk>

Student Edge: videos and profiles of people working in various occupations, <http://bit.ly/2aCpXSy>