Trinity College Dublin, the University of Dublin and Singapore Institute of Technology

One-year honours course in Radiation Therapy with recognition of specific diploma from Nanyang Polytechnic for admission

UVMD-RTHY-1F

Information Booklet for Prospective Students
Established in 1592, Trinity College Dublin is Ireland's leading university ranked 67th in the world by the QS World University rankings. Cutting edge research, technology and innovation places the university at the forefront of higher education in Ireland and internationally.

The Faculty of Health Sciences offers an interdisciplinary approach to teaching and research and continues to make significant contributions to education and research in health both nationally and internationally. The university shares industrial ties with the National Institute of Health (NIH) in Washington DC, the Dresden Centre for Radiation Research in Oncology in Germany and other internationally renowned health organisations.

The university offers students a truly global experience. Situated in an historic city centre campus, the university is home to a vibrant community of 17,000 students, including 2,300 from 122 countries. On the Bachelor in Science (Radiation Therapy) nine-week Overseas Immersion Programme in Dublin students have access to Ireland's largest research library and a wide range of support from the Discipline of Radiation Therapy, the academic registry and student services, all of whom are familiar with the needs of international students.

A Trinity education offers more than just academic achievement – it gives students an opportunity to broaden their minds to new experiences and ways of thinking. Trinity College Dublin is located in the heart of Ireland's capital city in a green campus environment. The city offers a rich tapestry of world class literature, museums, theatre, art, music and festivals and is connected by bus and rail to the beautiful Irish coasts and unspoilt countryside.
Bachelor in Science (Radiation Therapy)

This one-year course aims to upgrade diploma level education in Radiation Therapy in Singapore to degree level. This will be achieved through the delivery of seven modules over one academic year including the preparation of a research dissertation.

The aspiration is that this course will lead to independent practitioners who can initiate, drive and evaluate the radiation therapy services required for the future health system in Singapore. There is a need for a skilled workforce who can deliver and lead advancements in these services, as well as practitioners who can initiate and lead research in the field of radiation therapy to ensure that future practice is evidence-based.

Programme Structure

The one-year, 60-credit course will consist of seven modules. Students will attend Trinity College for 9 weeks in the first semester. During this period students will spend two weeks in a clinical centre as well as participating in the following modules: Radiotherapy in Practice, Research Methodology and Dissertation, Leadership and Management, and Treatment Planning.

1- Introduction to Treatment Planning, joining their Irish counterparts for some of these modules.

On returning to Singapore at the end of the first semester, students will begin the module in Treatment Planning 2 - Advanced Treatment Plan Evaluation which will continue in semester two, along with the module in Global Health and Service Development.
Radiotherapy in Practice

This module will enable students to integrate all aspects of cancer care, treatment planning and health care management to provide evidence-based care to all radiotherapy patients.

Some of the major cancer sites treated with radiotherapy (in particular tumours in the head and neck region and the central nervous system) are taught along with the associated patient care, supportive care and psychosocial issues.

The principles underlying technique selection are included, along with the clinical impact of the chosen techniques and plans.

This module equips students with the necessary knowledge and skills that underpin evidence-based practice, and on completion of this module in semester two, students should have a greater appreciation of the principles of risk management and the role of the radiation therapist in the delivery of a quality radiation therapy service. This module is closely linked with clinical practice as it provides the theory and evidence base for the practice/techniques observed in the clinical setting.

Research Methodology and Dissertation

The Research Methodology and Dissertation module will assist students to complete a research proposal and dissertation. During the first semester, all students will be furnished with a research dissertation topic and assigned a supervisor from within the Discipline of Radiation Therapy.

The aims of this module are to enable students to acquire knowledge in a research area of their choice, design a research study, defend its purpose and impact in the form of a research proposal and conduct data collection and analysis. This module concludes in semester two with the students presenting their findings in the form of a thesis and a poster.
Semester 1

Specialised Clinical Practice

This module will enable students to gain further skills in the field of radiotherapy, incorporating best practice and evidence-based medicine. During this module students are expected to apply their clinical skills and knowledge, communicate effectively with staff and patients, integrate fully as a team member and demonstrate a professional attitude at all times.

Importantly, this module will assist students to evaluate their practice and to become reflective practitioners and critical thinkers.

Treatment Planning 1 - Introduction to Treatment Planning

The aim of this module is to equip students with the skills required to evaluate treatment plans. Treatment planning is an integral part of the radiotherapy pathway where all patient information is utilised to prepare the optimal treatment plan for the patient, in line with departmental policies. This module is taught and completed in semester one using a combination of didactic lectures, practical sessions and tutorials.
Leadership and Management

The changing role of radiation therapists within radiation therapy departments worldwide requires graduates to be equipped with an understanding of management, leadership and wider professional issues such as performance monitoring and implementation strategies for change and development. The latter is especially relevant in radiation therapy, where technological advances and disease management are rapidly evolving. This module, which begins in Trinity College in semester one and concludes in Singapore in semester two, equips students with the necessary skills to be able to develop and manage their own service from an early stage in their careers.

Understanding individual and multidisciplinary team attributes, as well as the qualities of effective leaders will enable graduates to navigate the complex situations that face them in their careers.
Treatment Planning 2 - Advanced Treatment Plan Evaluation

This module, which begins in semester one and concludes in semester two, will build on the fundamental concepts covered in Introduction to Treatment Planning and will support the evidence based approach to management covered in Radiotherapy in Practice. This module will cover the process of producing IMRT and VMAT plans for a variety of sites and will have a strong focus on plan evaluation and assessment of plan quality.

Through integration of modern IGRT technologies and correction strategies, students will be able to discuss the emerging role of adaptive planning and critically analyse the process involved.

Global Health and Service Development

This module provides the opportunity for students to expand their knowledge and understanding of global health issues. The major challenges in global health will be discussed and the management of such addressed. The module will cover the four main non-communicable diseases: cancer, cardiovascular disease, chronic lung disease and diabetes. This is a multidisciplinary module and considers the role of the allied health professions in this field.
Location

SIT@NYP Building
172A Ang Mo Kio Avenue 8
Singapore 567739

Further Information

Singapore Institute of Technology
Website: www.singaporetech.edu.sg

Trinity College Dublin
Website: www.tcd.ie
Email: dougallm@tcd.ie
craigag@tcd.ie