DT229 BSc (Hons) Clinical Measurement Science

Practice Education Handbook

Third & Fourth Year Clinical Placements
DT229/3
DT229/4
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IF YOU IDENTIFY CONCERNS REGARDING THE BEHAVIOUR, PERFORMANCE OR COMPETENCY DEVELOPMENT OF A STUDENT PLEASE DISCUSS YOUR CONCERNS WITH THE APPROPRIATE PERSON AS SOON AS THEY ARE IDENTIFIED. III

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Foreword

Practice Placement Education is an integral part of the students learning experience on the BSc in Clinical Measurement Science at Dublin Institute of Technology (DIT) and we are delighted to be working with you as a Practice Placement Educator (PPE) supporting this process.

The aim of this handbook is to provide you with the necessary information to manage Practice Placements for our students and to support you through the process so that students have the best learning opportunity possible and it is a rewarding experience for you.

The contents of this handbook has evolved through feedback from PPEs at the Practice Education Day in DIT in January and from the follow up surveys sent to each of you. We are encouraged and motivated that so many of you participated in the process and we look forward to providing further CPD and postgraduate education opportunities.

This manual will be reviewed on an annual basis, and the PEC and Practice Education Team, where possible, will incorporate all suggestions and ideas put forward by the Practice Placement Educators.

Finally, I would like to thank Practice Placement Educators Paul, Geraldine, Orla and Odette who provided feedback on the draft document. Your help and support is much appreciated.

Happy Reading!

With Best Wishes

Maria, McNeill, Practice Education Coordinator and the Practice Education Team
**Staff profile**

The practice education team within DIT consists of four half-time Clinical Tutors, a full-time Practice Education Coordinator and two Year Coordinators. The Clinical Tutors and Practice Education Coordinator are all qualified Clinical Measurement Physiologists and hold post graduate qualifications in teaching.

DIT Clinical Measurement Practice Education Staff

<table>
<thead>
<tr>
<th>Staff Name</th>
<th>Position</th>
<th>Email</th>
<th>Contact No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr John Doran</td>
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<td>01 402 4953</td>
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<td>Year 3 Coordinator</td>
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</tr>
<tr>
<td><strong>Clinical Tutors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<tr>
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<td>01 402 4727</td>
</tr>
</tbody>
</table>

Please note: Clinical Tutors are employed on a half-time basis and therefore may not always respond immediately to messages.
Who to Contact in the Event of a Problem or Query?

Should you require advice or assistance prior to, during or after a student is on placement it is advisable that you contact one of the following:

The Clinical Tutor, if your query is in relation to student performance, clinical competency, tutorials or specialist lectures.

The PEC, for all other queries in relation to placement allocation, student behaviour (professionalism, communication and care) and reflective practice.

In the event that neither is available, please contact the Year Coordinator who will be more than happy to deal with your query or concern.

If you identify concerns regarding the behaviour, performance or competency development of a student please discuss your concerns with the appropriate person as soon as they are identified.
Definitions:

Practice Education: This refers to the practical component of the Clinical Measurement program. It may also be referred to as clinical placement or student placement.

Practice Placement Educator (PPE): The primary clinical supervisor of the student within the hospital setting.

Clinical Tutor (CT): The person who provides discipline specific lectures/tutorials and monitors and assesses the student’s clinical progress during their placement.

Placement provider: This refers to the hospital/organisation providing the student placement.

Practice Education Coordinator (PEC): The person responsible for sourcing placements and coordinating and managing all non-clinical aspects of the practice education component of the degree programme including reflective practice.

Year Coordinator: The person who coordinates and monitors the student timetable during the academic year.
Section One: Overview of Programme

Introduction

The BSc in Clinical Measurement Science programme is designed to educate and train Clinical Measurement Physiologists who will gain employment principally in hospital departments performing diagnostic tests in the areas of Cardiac Physiology, Neurophysiology, Respiratory Physiology or Vascular Physiology. This is an honours degree programme in modular form and aims to provide graduates with scientific, analytical and practical skills in the disciplines listed as well as a practical skills base developed and experienced through extensive hospital placement in the third and fourth Stages of the programme.

The Dublin Institute of Technology has a long tradition in providing education and training for the Clinical Measurement Science profession. For more than thirty years, and up to 2004, a part-time certificate programme in Medical Physics and Physiological Measurement was offered. The majority of graduates from this programme found employment within the health services in Ireland.

In line with the movement of many education and training initiatives in the health and social care sector the discipline of Clinical Measurement Science was validated as a full-time honours degree programme in 2001.

This programme was reviewed in 2007, in 2011 and was reviewed as part of the School review process in 2016. The changes incorporated from this review form a response to the current and future needs of the health services and the Clinical Measurement professions.

Programme Aims

The broad aims of this programme are: to provide graduates with scientific and analytical skills as well as practical problem-solving ability and a particular knowledge of the application of the core sciences to Clinical Measurement Science. Strong emphasis is placed on developing clinical skills and also the additional skills and qualities sought by the health services, such as interpersonal skills, adaptability, and an appropriate level of computer literacy. Since this is a degree level programme from which graduates will generally be employed in a healthcare environment, the ability of the graduates to adapt to changing needs in the workplace is viewed as especially important.
Programme Objectives

The objectives of the programme are as follows:

• to facilitate the student in making the transition from broadly based, second level studies to specialised healthcare professional studies;

• to guide the student’s progress through their chosen specialisations and to present to the student a soundly based and coherent body of scientific, clinical, and technical knowledge that is relevant to the requirements of clinical measurement physiologists;

• to guide the student through a programme of laboratory work so as to provide him/her with confidence and skill in handling clinical instrumentation;

• to train the student in the analysis, interpretation, presentation and critical evaluation of scientific data, and to inculcate in the student an appreciation and awareness of the principles and practice of laboratory and clinical conduct and safety;

• to provide the student with practical training in the application of clinical and physiological measurements in a hospital environment;

• to have each student carry out a research project in the final stage of the programme so as to provide experience in the description of clinical measurement problems, formulation and implementation of solutions and in the effective communication of the outcome;

• to prepare the student for the transition to the hospital workplace, or industry or postgraduate study and research;

• to produce graduates who because of their degree level qualifications will be ready to work in a clinical setting and be readily able to adapt to the advent of new technologies in the workplace;

• to provide the students with a degree level qualification that will enable them to pursue and develop a career in a number of different areas, such as research, and not just solely in clinical measurement practice;

• to provide the student with presentation and reporting skills as well as confidence in self-expression, and personal and career development;

• to recognise the vocational nature of clinical measurement, and to develop a patient-centred ethos to the role of clinical measurement science practice.

• to enable students to function as part of an interdisciplinary team in a clinical setting. These objectives are firmly rooted in the mission of the Institute, which is to provide a comprehensive technological practice-led education service for Irish society and industry,
having regard to the technological, commercial, social and cultural needs of the community it serves.

• to enable students to communicate effectively with a multidisciplinary team including patients and care givers.

• to ensure students understand the role of clinical measurement physiologist within the broader healthcare system

• to introduce students to the role of clinical measurement physiologist under supervision.

Programme Learning Outcomes

On successful completion of this programme the graduate will:

• Have detailed knowledge and understanding of a wide range of core topics in physics as applied to imaging and the acquisition of physiological signals, biology (including human anatomy, physiology, biochemistry and pharmacology), and clinical measurement techniques.

• Have a detailed knowledge and understanding of the applications of physical sciences in clinical measurement physiology.

• Have a particular knowledge and understanding of human anatomy, physiology, biochemistry and pharmacology and their relevance to the practice of a Clinical Physiologist.

• Have a particular knowledge and understanding of procedural aspects and the relevance of laboratory technique in the measurement of physiological signals from the human body in a healthcare setting.

• Have a basic knowledge of chemistry, knowledge of mathematics appropriate for a physical scientist and appreciation of the interdisciplinary nature of modern science and technology.

• Have demonstrated basic clinical competence in several disciplines and more advanced clinical competence in the student’s major clinical discipline.

• Have demonstrated the ability to keep a comprehensive record of their clinical practice in a placement logbook and to reflect on their clinical practice.

• Have demonstrated confidence and skill in conducting a wide range of scientific experiments, involving a wide range of clinical instrumentation and apparatus, recording, analysis and critical interpretation of clinical data.
• Have demonstrated the ability to design a scientific experiment to achieve specific objectives, and to apply scientific knowledge to solve a non-routine problem.
• Have basic IT and computing skills.
• Have demonstrated the ability to carry out an individual scientific research project under supervision, involving the description of the problem, the formulation and implementation of solutions, an appreciation of the significance of the project outcomes and effective communication of the outcomes.
• Have demonstrated the ability to participate as member of a team in the solution of a healthcare problem, both as team-leader and as team member, to identify the knowledge required to solve the problem, and to critically evaluate their own contribution to the work of the team.
• Have demonstrated the ability to work satisfactorily under supervision in a healthcare setting, to relate the activity of that organisation to their field of study and report on the activity to others.
• Have developed a view of the relevance of their field of study to industry and society at large. The learning outcomes for the programme are consistent with those defined by the National Qualifications Authority of Ireland (NQAI) for a Level 8 award.

Garda Vetting

Due to the fact that the students will undertake hospital based placement as part of the programme they are required to complete the Garda vetting process, and their continued involvement in the programme is conditional on successfully obtaining Garda clearance through this vetting process. DIT submits the relevant material to the Garda Vetting Unit.

Due to the clinical nature of the hospital placements it will be necessary for the students to comply with various vaccination programmes. They will be advised by the DIT student health services in this regard.

Confidentiality

Confidentiality is a basic principle and rule that must be followed by all health care professionals including those in training. In the course of a placement, students may have access to, or hear
information concerning, the medical or personal affairs of patients and/or Employees, or other Health Service business.

Such records and information are strictly confidential and on no account must information concerning Employees, patients or other Health Service business be divulged or discussed except in the performance of normal duty. In addition, records must never be left in such a manner that unauthorised persons can obtain access to them and records must be kept in safe custody when no longer required. Patient information that can identify individual patients is confidential and must not be used or disclosed.

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Students must ensure they remove all identifiable information such as Patient's name, address, date of birth and medical record number from all record of clinical practice. Failure to do so will be treated as a serious breach of data protection and patient confidentiality.

A logbook or case study, submitted with identifying patient information will not be accepted. In such cases students will be required to meet with their Clinical Tutor, the incident will be reported to the Practice Placement Educator and subject to review by the Hospital Clinical Risk Department.

Logbooks may have marks deducted if there is such a breach of confidentiality.

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Structure of the Programme

The programme extends over four years full-time and consists of lectures, tutorials, assignments, laboratory work, reflective practice, and clinical placement in Stage 3 and Stage 4, and project work. Module examinations are normally held at the end of each semester for modules completed during that semester in each academic year in addition to laboratory and other assessments as outlined in each module descriptor.

An overview of each stage of the programme is given below. Stage 1 is designed to provide a strong foundation in relevant science subjects. In Stage 2 there is a focus on medical measurement, key biological sciences, and the introduction of each of the four clinical measurement science specialties on offer within the degree programme: cardiology, neurophysiology, respiratory, and vascular. Stage 3 is largely hospital-based. Following a college-based series of lectures students spend 24 weeks on
placement in a rotation through three of the four clinical disciplines. Stage 4 of the programme will involve a mixture of taught material, hospital clinical placement, specialist seminars and a major research project. In the final Stage the students will study two of the three disciplines undertaken in Stage 3, with clinical placement in one of these two disciplines (this being the student’s major discipline).

### CURRICULUM STRUCTURE

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<th>Stage 2</th>
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<td>Pharmacology 1</td>
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<tr>
<td>Cell Biology</td>
<td>Medical Measurements</td>
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<tr>
<td>Physiology</td>
<td>Anatomy &amp; Physiology</td>
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<tr>
<td>Introduction to Chemistry</td>
<td>Physiological Biochemistry</td>
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<tr>
<td>Mathematics</td>
<td>Medical Imaging</td>
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<tr>
<td>Computer Sciences</td>
<td>Mathematics &amp; Statistics</td>
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<tr>
<td>Science, Society &amp; Technology/Clinical Measurement Profession</td>
<td>Introduction to Clinical Measurement</td>
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<td></td>
<td>Science</td>
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</table>

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<tr>
<th>Stage 3</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac Physiology 1</td>
<td>Clinical Pharmacology &amp; the Pathophysiologic mechanism of drug action</td>
</tr>
<tr>
<td>Respiratory Physiology 1</td>
<td>Advanced Medical Measurement</td>
</tr>
<tr>
<td>Neurophysiology 1</td>
<td>Final Stage Project</td>
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<tr>
<td>Vascular Physiology 1</td>
<td>Cardiac Physiology 2</td>
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<td></td>
<td>Respiratory Physiology 2</td>
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<td>Neurophysiology 2</td>
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<td>Vascular Physiology 2</td>
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| 8 weeks clinical placements in three of the four disciplines | 14 weeks clinical placement in chosen discipline |
Section Two: Practice Education

Introduction

Practice education is a process of work-based learning that involves a partnership between the practice placement educator and the student in the hospital setting. All students are required to successfully complete 24 weeks (8 per discipline) of practice education in Stage 3 and 14 weeks in stage 4 under the supervision of a qualified clinical measurement physiologist. This is undertaken at the students’ own expense and may mean additional cost is incurred throughout the course.

Aims of Practice Education

Practice education allows students to observe and practice in a variety of settings and to experience the future work environment. During practice education the student develops, demonstrates and achieves professional competence and links theory to practice supporting the academic curriculum. The experience provided in the placement should reflect the students’ level of training and competence.

Practice education facilitates the development and application of the knowledge, attitudes, values and skills needed for the execution of appropriate professional behaviours. It also gives the opportunity to practice under supervision, and be assessed on professional standards and behaviour, ethical practice and inter professional partnership.

The main aims of practice education are:

- to integrate theory, practice, ethics and values within clinical measurement science
- to apply knowledge, professional reasoning and professional behaviour within practice;
- to develop skills, attitudes and knowledge of practice within clinical measurement;
- to promote professional competence;
- to work as an effective team member;
- to promote professional confidence;
- to provide opportunities for students to integrate theoretical and practical learning;
• to facilitate consolidation of student’s previous learning.
• to support student development of respect, empathy and dignity towards self and service user.

The academic and practice education curricula combine to form a complete educational programme which is designed to ensure that students develop and attain the abilities required of a clinical measurement science student, to be eligible to qualify as a basic-grade clinical measurement physiologist.
STAGE 3

Introduction

Stage 3 student placement is considered a very important part of the overall programme of study and it is crucial that all involved understand his/her own and each other’s role in the placement. Prior to going on placement each student will have completed hand hygiene manual handling and cardiac first response training. Students are insured by DIT to work, under supervision, while on placement.

Objectives

The objectives of the Clinical Placement include the following:

- Allow the student to gain a level of practical expertise in three of the four clinical disciplines;
- Allow the student to combine their practical and theoretical skills (gained from focused specialist lectures in Stage 3) as they relate to functioning in a physiological measurement department;
- Allow the student to link theory to practice through the use of reflective writing.
- Allow the student to gain a level of knowledge of a wide range of clinical tests and develop the skills required to produce a diagnostic report on the basis of the test results versus normal or expected values for those specific tests.
- Allow the student to document development of their learning through the clinical placement logbook

Benefits

The benefits of the Clinical Placement include the following:

- Students receive meaningful, practical clinical experience, which will be of advantage in post-graduation employment and furthering of their career in their chosen discipline (this experience may count towards their professional accreditation by the Irish Institute of Clinical Measurement Science or other professional body subsequent to their graduation).
• The student assumes a greater responsibility for his or her own learning.
• The placement instils increased motivation and professionalism in the student, preparing the student for subsequent employment in the Clinical Physiology Department.
• Provides an opportunity for the student to prove themselves as potential future employees.
• The placement allows DIT staff to assess whether the student can combine practical and theoretical knowledge and function in as Clinical Measurement Physiologist in the clinical environment.
• Allows the student to become experience and become familiar with the process of feedback to their learning

Duration and Commencement Dates

In Stage 3 students are on placement for a total of 24 weeks in Semester 1 and 2. Placements are divided into three placements of eight weeks duration each (approximately the end of September until end of April).

Sourcing Placements

The quantity of available Clinical Placement positions in any given discipline is dependent on the current climate in the Healthcare Sector and the Clinical Physiology Departments. The Practice Education Coordinator will establish contact with Clinical Physiology Departments, which may be anywhere in Ireland, to determine availability of placements. Every effort is made to meet student requests however this is not always possible due to over-subscription for the number of places available. **Students are not permitted to source their own placements.** Final decision on placements remains the responsibility of the Practice Education Coordinator and DIT. The Practice Education Coordinator and Clinical Tutors will assess suitability of all Clinical Placements.
Allocation of Students to Vacancies

The Practice Education Coordinator will provide the students with a clinical placement based on availability. The Practice Education Coordinator will endeavour to match the student profiles and geographic location to each placement post. Where reasonably possible students are offered their placement location choice in their chosen first discipline. This occurs to a lesser extent for their second and third choice. The Practice Education Coordinator will have the final decision on assigning students to placement positions. Once a student is offered a placement they are expected to accept that placement. Although not a frequent occurrence, students should be aware that placement allocation could change at short notice due to unexpected hospital staffing issues. In this event every effort will be made to relocate the student within the same geographical area.

Key Persons in the Clinical Placement

<table>
<thead>
<tr>
<th>The Student</th>
<th>A student on Stage 3 of the programme</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Practice Placement Educator</td>
<td>An Experienced employee of the Hospital in which the student is placed. It is recommended that this designated person mentor/supervise the student throughout the placement.</td>
</tr>
<tr>
<td>The Practice Education Coordinator</td>
<td>A DIT School of Physics staff member who co-ordinates, sources, arranges and manages hospital based practice education of students. The practice education coordinator is also responsible for assessing the reflective practice element of the course.</td>
</tr>
<tr>
<td>The Clinical Tutor</td>
<td>A DIT School of Physics staff member (half-time) who delivers specialist lectures and tutorials. The Clinical Tutor also liaises with the Practice Placement Educator on the progress of the student throughout their placement, conducts the clinical competency assessment of the students, assesses the placement logbook and case study reports and coordinates year 3 examination papers.</td>
</tr>
<tr>
<td>DIT Course Coordinator</td>
<td>A DIT School of Physics staff member who oversees Stage 3 of the programme.</td>
</tr>
</tbody>
</table>
Progress Monitoring and Pattern of Visits

The Practice Education Coordinator (PEC) provides a copy of the Practice Education Handbook to each department. He/she also provides departments with a pre-placement form and a copy of the students CV, and confirmation of insurance, and Garda Clearance. It is the student’s responsibility to provide a copy of the hand hygiene, manual handling, first response and any other relevant CPD certificate to their practice placement educator on the first day of their placement.

It is recommended that the student receives an induction on the first day of their placement and an induction checklist is provided to facilitate this (Appendix 1).

The Practice Placement Educator (PPE) is provided with a Professional Conduct Form to aid progress monitoring throughout the placement (Appendix 3).

It is advised that the PPE carry out weekly supervision meetings with the student. Further information on this will be provided later in the document.

The Clinical Tutor (CT) is available to visit students and Practice Placement Educators in the clinical setting upon request. Where a cause for concern arises, the PEC should arrange to follow up separately with the Practice Placement Educator and the student and be available to visit the hospital.

The Clinical Tutor reviews the Placement Logbook on his/her visit to the hospital or during tutorials with the students – verbal feedback will be given to the students during review sessions and areas of concern will be discussed with the Practice Placement Educator, where appropriate.

Assessment of Stage 3 Clinical Placement

The Stage 3 placement is assessed under three categories as outlined in the module descriptor. These are:

1. Case Studies and Placement Logbook – accounts for 50% of the module marks.
2. Clinical Competency – assessed on a pass/fail basis.
3. Reflective Journal – assessed on a pass/fail basis.
Case Studies and Logbook

The students are required to submit a written case study and logbook from each of their three placements to the relevant Clinical Tutor and to give an oral presentation on each of these case studies. They are expected to keep a Logbook throughout their placement.

Clinical Placement Logbook (35%)

While on placement the student is required to keep a logbook and should include the following: Patient initials, M/F, DOB, Date of exam, Patient risk factors, Relevant past history, Presenting symptoms/clinical indications, procedure performed or observed, brief results, report/conclusion, any difficulties encountered, own interpretation/impression. The student must ensure that the Practice Placement Educator on a weekly basis authenticates the Logbook.

This document describes the overall placement work and experiences. The logbook should provide evidence of self-directed learning via inclusion of the student’s own notes on specialist topics encountered throughout placement. Three reflective journal entries should be included. Further details are given later in this document. The purpose of the report is to enable the School of Physics to determine if the work undertaken was of an appropriate standard.

Students must ensure they remove all identifiable information such as Patient’s name, address, date of birth and medical record number from all record of clinical practice. Failure to do so will be treated as a serious breach of data protection and patient confidentiality.

A logbook or case study, submitted with identifying patient information will not be accepted. In such cases students will be required to meet with their Clinical Tutor, the incident will be reported to the Practice Placement Educator and subject to review by the Hospital Clinical Risk Department.

Logbooks may have marks deducted if there is such a breach of confidentiality.

Attendance and daily activity should be recorded in a notebook each day by date with the signature of senior staff member, and with the logbook, and submitted with the logbook to the appropriate Clinical Tutor. Font should be Times New Roman, Size 12 with 1.5-line spacing.

Note: The discipline specific requirements for logbook content are indicated in the discipline specific training manuals.

Case Study Report (10%)

Each student is required to write a report based on a case study of a particular disease process or clinical measurement technique they found interesting while on their 8-week placement. The case study should be a minimum of 5 pages in length and it should give a brief description of the medical condition investigated or studied. The different tests, equipment and settings used to facilitate
diagnosis should be described in detail. Furthermore, a full evaluation of the technical and experimental limitations should be carried out. Graphs may be included if appropriate. The assessment criteria for the placement logbook are detailed on the Case Study Report Assessment form (Appendix 10). This is submitted to the Clinical Tutor for marking on the last day of their clinical placement in that discipline.

**Case Study Presentation (5%)**

Each student is required to give a PowerPoint presentation based on a case study of the particular disease process or clinical measurement technique on which they based their case study report. A copy of the presentation marking criteria may be viewed in Appendix 11.

**Clinical Competency**

The student will be assessed on their ability to competently carry out the respective clinical tests within their specialist area, as outlined in the relevant module descriptors and Clinical Training Manuals. The respective Clinical Tutors will conduct this assessment and the student’s competency will be recorded as either pass or fail. In order to progress to Stage 4 this aspect of the module must be passed, regardless of the mark obtained in the other two aspects of the assessment.

**Reflective Journals**

The student will be assessed on their ability to demonstrate learning through reflection and will be required to keep a learning journal while on clinical placement as outlined in the module descriptor. This assessment will be conducted by the Practice Education Coordinator and recorded as either pass or fail. In order to progress to Stage 4 this aspect of the module must be passed. See Appendix 12 for Assessment criteria.

**Hospital’s Role in Student Assessment**

The contribution of the Practice Placement Educator to the assessment process is mainly the completion of the Professional Conduct Form and Risk of Failure form should the need arise. The Practice Placement Educator should review the student Logbook on a weekly basis for authentication, and forward comments directly to the Clinical Tutor where appropriate. The Professional Conduct Form should be submitted directly to the Practice Education Coordinator at the end of the placement
If the Practice Placement Educator has cause for concern regarding a student’s professionalism while on placement this must be brought to the attention of the Practice Education Coordinator at the earliest convenience and in extreme cases a Risk of Failure form should be completed.
STAGE 4

Introduction

Stage 4 hospital placement is considered a very important part of the overall programme of study and it is crucial that all involved understand his/her own and each other’s role in the Placement. Additionally the Final Stage Project is brought to completion during the placement period. Details relating to the project are included in the module descriptor. Students are insured by DIT to work, under supervision, while on placement.

Objectives

The objectives of the Clinical Placement include the following:

- Allow the student to gain a further level of practical expertise in their chosen discipline of specialty;
- Allow the student to combine their practical and theoretical skills (gained from focused specialist lectures in Stage 3 and 4 of the programme) as they relate to functioning in a physiological measurement laboratory in their chosen discipline;
- The use of reflective journals to support learning by linking theory gained in the college setting to practice in the workplace.
- Allow the student to gain a level of knowledge of a wide range of clinical tests within their chosen discipline, and develop the skills required to produce a diagnostic report on the basis of the test results versus normal or expected values for those specific tests;
- The use of clinical logbooks to demonstrate a portfolio of discipline specific learning.

Benefits

The benefits of the Clinical Placement include the following:

- Students receive meaningful, practical clinical experience, which will be of advantage in post-graduation employment and furthering of their career in their chosen discipline (this experience may count towards their professional accreditation by the Irish Institute of Clinical Measurement Science or other professional body subsequent to their graduation).
• The student assumes a greater responsibility for his or her own learning.
• The placement instills increased motivation and professionalism in the student, preparing the student for subsequent employment in the Clinical Measurement Laboratory.
• Provides an opportunity for the student to prove themselves as potential future employees.
• The placement allows DIT staff to assess whether the student can combine practical and theoretical knowledge and function in as Clinical Measurement Physiologist in the clinical environment.

Duration and Commencement Dates

The Placement is duration is 14 weeks (approximately end January to mid May in Semester 2).

Sourcing Placements

The quantity of available Clinical Placement positions in any given discipline is dependent on the current climate in the Healthcare Sector and the Clinical Measurement Departments. The Practice Education Coordinator will establish contact with hospital departments, which may be anywhere in Ireland, to determine placement availability. Every effort is made to meet student requests including returning to a laboratory in which they carried out their third year placement. However, this is not always possible due to over subscription for the number of available places in which case the Practice Placement Educator will decide which students return, based on their 3rd year placement, and make their choice known to the Practice Education Coordinator. Students are not permitted to agree placements outside of this process. Final decision on placements remains the responsibility of the Practice Education Coordinator and DIT. The Practice Education Coordinator and Clinical Tutors will assess suitability of all Clinical Placements.
Allocation of Students to Vacancies

The Practice Education Coordinator will provide the students with a clinical placement based on availability. The Practice Education Coordinator will endeavour to match the student profiles and geographic location to each placement post. The Practice Education Coordinator will have the final decision on assigning students to placement. Once a student is offered a placement they are expected to accept that placement.

Final Year Project

In the final year of the programme students are required to undertake a major project, which contributes to their final grade and degree award. The School has a substantial track record of running projects in the final year of all programmes, both based in DIT and in collaboration with external partner in industry or in a hospital. Students often view the project as the culmination of their studies, where they have the opportunity to undertake an independent body of work of which they can claim ownership. The planning, execution and writing of the project encompasses literature survey, plan of work, time management, hospital based experimental work, data interpretation, computer skills and ultimately demands a clear and meaningful presentation of scientific information. The final stage project is managed by the Year 4 coordinator and is jointly supervised by the practice placement educator and a DIT staff member. It is advised that the practice placement educator is a senior/chief physiologist. The hospital based practice placement educators will be invited to meet the DIT supervisor prior to commencement of the final stage placement. This meeting will take place during the Practice Education CPD Day in January.

The Year 4 coordinator also provides statistical support for the final year project and tutorials will be provided to review data as the project advances. If interested the hospital supervisor may also attend these tutorials.
## Key Persons in the Clinical Placement

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Student</strong></td>
<td>A student on Stage 4 of the programme</td>
</tr>
<tr>
<td><strong>The Practice Placement Educator</strong></td>
<td>An experienced employee of the Hospital in which the student is placed (Senior/Chief Physiologist or delegated colleague). It is recommended that this designated person mentor/supervise the student throughout the placement and will jointly supervise the student’s project.</td>
</tr>
<tr>
<td><strong>The Practice Education Coordinator</strong></td>
<td>A DIT School of Physics staff member who co-ordinates, sources, arranges and manages hospital based practice education of students. The practice education coordinator is also responsible for assessing the reflective practice element of the course.</td>
</tr>
<tr>
<td><strong>The Clinical Tutor</strong></td>
<td>A DIT School of Physics staff member (half-time) who delivers specialist lectures. The Clinical Tutor also liaises with the Practice Placement Educator on the progress of the student throughout their placement, conducts the clinical competency testing of the students, and reviews the placement logbook. Clinical Tutors do not supervise final stage projects but are responsible for final year exam paper.</td>
</tr>
<tr>
<td><strong>DIT Course Coordinator</strong></td>
<td>A DIT School of Physics staff member who oversees Stage 4 of the programme. The course coordinator manages and provides statistical support for the final year projects.</td>
</tr>
</tbody>
</table>
Progress Monitoring and Pattern of Visits

The Practice Education Coordinator provides a copy of the Practice Education Handbook to each department. He/she also provides departments with a pre placement form and a copy of the students CV.

It is recommended that the student receives an induction on the first day of their placement and an induction checklist is provided to assist with the process (Appendix 1).

The Practice Placement Educator is provided with a Professional Conduct Form to aid progress monitoring throughout the placement.

It is advised that the Practice Placement Educator carry out weekly supervision meetings with the student. Further information on student supervision is provided later in the document.

The Practice Education Coordinator will arrange to follow up separately with the Practice Placement Educator and the students and be available to visit the hospital if a cause for concern arises. In this situation the Clinical Tutor may also be asked to visit the student on placement.

The Clinical Tutor performs the practical competency assessment and will review the Placement Logbook to check that all components have been assessed and signed off by the Practice Placement Educator.

Assessment of Stage 4 Clinical Placement

The Stage 4 Clinical Placement module is assessed in two categories, as outlined in the module descriptor. These are:

1. Clinical Competency – assessed on a pass/fail basis.
2. Reflective Journal – assessed on a pass/fail basis.

Clinical Competency

The student will be assessed by the specialist Clinical Tutor on their ability to competently carry out the respective clinical tests within their specialist area, as outlined in the relevant module descriptors and Clinical Training Manuals. The respective Clinical Tutors will conduct this assessment and the student’s competency will be recorded as either pass or fail.
Important: the Clinical Tutor will inspect the Placement Logbook in order to ensure that it has been maintained in accordance with the procedures set out in the Year 4 Clinical Training Manual, including sign-offs by the Practice Placement Educator. It is only when this is verified that the Clinical Competency testing can take place.

Reflective Journals

The student will be assessed on their ability to demonstrate learning through reflection and will be required to keep a learning journal while on clinical placement as outlined in the module descriptor. This assessment will be conducted by the Practice Education Coordinator and recorded as either pass or fail.

Hospital’s Role in Student Assessment

The contribution of the Practice Placement Educator to the assessment process is mainly the completion of the Professional Conduct Form and risk of failure form should the need arise. The Practice Placement Educator will review and sign off on specific tasks (as detailed in the discipline specific Clinical Training Manual) in the student Logbook on a weekly basis for authentication, and forward comments directly to the Clinical Tutor where appropriate. The Professional Conduct Form should be submitted directly to the Practice Education Coordinator at the end of the placement.

If the Practice Educator has cause for concern regarding a student’s professionalism while on placement this must be brought to the attention of the Practice Education Coordinator/Clinical Tutor at the earliest convenience and in severe cases a Risk of Failure form may be completed.
Section Three: Roles and Responsibilities

The Student

For the duration of the placement, the student is subject to and is expected to conform to all rules and regulations of the Hospital in which they are placed, and are directly answerable to the head of department or delegated person in this regard, in particular codes of timekeeping, absenteeism and dress code must be upheld. The student must comply with all professional and ethical requirements regarding confidentiality, security and copyright and sign a Professional Code of Practice form prior to commencing placement (Appendix 16). Health and Safety regulations of the hospital should be adhered to. Students are expected to attend all tutorials while on placement. Advance notice should be given to the Clinical Tutor if unable to attend. The Practice Education Coordinator should be copied on all correspondence.

It is of importance that the student uses his/her initiative to gain the widest possible experience of the clinical environment including the organisation context, procedure of meetings, management procedures and resource constraints and social activities, in addition to the main objective of gaining experience to enable them to demonstrate that he/she has progressed their knowledge and experience in that discipline (through their Placement Logbook and reflective journals).

The student must remember that their Practice Placement Educator will become an important source of a personal reference for their future employers and they should make every effort to perform to the best of their ability during their placement. The student is representing their college and programme and should make every effort to promote these to the Clinical Measurement Physiologists who should be seen as a future employer and provider of Clinical Placements for DIT students.

The student will compile a daily log summarising their clinical work (tests conducted and/or observed) and forward it to their Clinical Tutor at the end of placement. The student must ensure that their Practice Placement Educator authenticates their daily reports. The student must ensure that the log of activity discusses the clinical test conducted/observed on placement under the headings given in the relevant module descriptor. The student must keep a reflective journal as outlined by the Practice Education Coordinator.
Students must ensure they remove all identifiable information such as Patient’s name, address, date of birth and medical record number from all record of clinical practice. Failure to do so will be treated as a serious breach of data protection and patient confidentiality. A logbook, submitted with identifying patient information will not be accepted. In such cases students will be required to meet with their Clinical Tutor, the incident will be reported to the Practice Placement Educator and subject to review by the Hospital Clinical Risk Department. Logbooks may have marks deducted if there is such a breach of confidentiality.

The Practice Education Coordinator (PEC)

In relation to clinical placements the role of the Practice Education Coordinator (PEC) is to:

• Source, coordinate, arrange and manage hospital based practice education of all students.
• Source, coordinate, arrange and manage training for Practice Placement Educators.
• Assist in preparing the students for their practice education.
• Provides a signed copy of the student Code of Conduct Form to Practice Placement Educators.
• Support the hospital staff and departments in their role of ‘hands on’ student Practice Placement Educators.
• Be available to visit the Practice Placement Educator to meet with them and their student as required.
• Review and monitor the overall Practice Education procedures.

The Clinical Tutor (CT)

The duties of The Clinical Tutor are to:

• Provide pre placement specialist lectures and tutorials for students on placement.
• Be available to visit the Practice Placement Educator to meet with them and their student as required.
• Advise the student in producing their Placement Logbook.
• Monitor the student’s clinical progress throughout the placement.
• Carry out clinical competency testing in year 3 & 4.
• Mark placement logbooks and case studies in Year 3 and review placement logbooks in Year 4.
• Advice student in producing case studies and presentations in year 3
• Support the hospital staff and departments in their role of ‘hands on’ student Practice Placement Educators.

The Practice Placement Educator (PPE)

The duties of the Practice Placement Educator are:

• To work closely with the student for the duration of the placement and liaise with the Practice Education Coordinator and Clinical Tutor.
• To facilitate visits by the Practice Education Coordinator and Clinical Tutor.
• To inform the student about the rules and regulations of the Hospital or Clinical environment, in particular in relation to timekeeping, absenteeism, dress code, ethical requirements, confidentiality, security and copyright and Health and Safety regulations. An induction checklist should be completed on day one of placement (Appendix 1).
• To complete the Professional Conduct Form appraising the student’s Clinical Placement, midway during the placement and at the end of the placement. This form will contribute to the overall assessment of the student’s Clinical Placement.
• To familiarise themselves with the Practice Placement Handbook and relevant training manuals.
• To sign off on student logbook and performance related tasks as outlined in relevant training manuals.
• To jointly supervise the student’s final year project, with a DIT appointed staff member (only applicable to those taking 4th year students).
• To monitor student compliance with data protection and confidentiality policy.
Section Four: Placement Protocols

Contingency Plan in Event of Unsatisfactory Placement

DIT reserves the right to terminate a student’s placement in cases where the Hospital’s regulations are breached. In the case where the student is clearly not making any effort to perform the tasks assigned to them, the Practice Placement Educator should discuss the situation with the student highlighting concerns on the Professional Conduct Form (Appendix 3). If no improvement is made the Practice Placement Educator should discuss the situation with the Practice Education Coordinator and the Clinical Tutor and a Risk of Failure form (Appendix 6) may need to be completed. The Practice Education Coordinator will then discuss the problem with the student and advise them that their Clinical Placement will be terminated if a required level of commitment is not demonstrated immediately and for the remainder of the placement. In the event of a student’s Clinical Placement being terminated the School of Physics and/or the examination board will examine the issues and possibly deem the student as failing their Clinical Placement. The student must repeat the Clinical Placement during the following academic year (subject to the availability of placement posts).

In the case where the student is dissatisfied with the level of service given by the Hospital, the Practice Education Coordinator will discuss the issues with the parties involved and assist in resolving the problems. If necessary the Clinical Placement may be terminated and the Institute will make all reasonable efforts to provide the student with an alternative Clinical Placement.
Written Material

The following section provides information on the forms that should be completed by the Practice Placement Educator throughout the placement:

**Induction Checklist (Appendix 1)**

The Practice Placement Educator should complete this form during induction with the student on Day 1 of the placement. Start and finish times and all local requirements should be agreed at induction. In particular how you wish the student to contact you if they are unwell and unable to attend. Students are required to attend on each day of placement therefore other leave is discretionay and should be agreed beforehand.

**Supervision Contract (Appendix 2)**

This form should be completed at Induction and should outline times and frequency of supervision meetings. It is advised that supervision meetings with the student are carried out on a weekly basis.

**Professional Conduct Form (Appendix 3)**

The professional conduct form should be completed twice during the clinical placement. For stage three students, this will be week 4 and week 8 and for stage four students this will be week 7 and week 14. The document is broken into three sections; Practice and Theory, Communication and Care and the Professional Role. The scales range from *weak ability* to *excellent ability* and a mark should be put on the scale to correspond with the student’s ability at each point. If a student is weak in any of the areas at the mid-way point this should be discussed with the student and a plan put in place to address the situation. The Practice Education Coordinator should be notified.

**Supervision Record (Appendix 4)**

This is a record of the student supervision meetings and may be used to outline the student and practice placement educators learning aims. It is good to use this form to review what went well and what needs improvement during that week. The professional conduct form may also be used with this form to highlight strengths and weaknesses for the student.
Return to Placement Discussion Form (Appendix 5)

Students are requested to have full attendance for the duration of the placement except where prior arranged or when the student attends DIT for tutorials. The Clinical Tutor will notify the practice placement educator and student of all tutorial dates at the start of placement.

This form should be completed with the student when they return to placement following any unplanned absence/sick leave. As a general rule of thumb, absences less than three days should not require extra time at the end of the placement but should incur additional learning on behalf of the student to catch up on what was missed. Unless in exceptional circumstances absences greater than 3 days should be made up at the end of placement or during Easter or Christmas holidays. In both cases additional time is at the discretion of the Practice Placement Educator and requirements will be assessed on a case-by-case basis. The practice education coordinator should be notified in each case.

Risk of Failure Form (Appendix 6)

This is a very important document and should be completed by the Practice Placement Educator, the Practice Education Coordinator and the student for issues arising in areas of Communication, Care or Professionalism and by the Practice Placement Educator, the Clinical Tutor and the Student in relation to Theory or Practical issues. The PEC should receive a copy in both cases.

Where student’s abilities remain weak or insufficient the student may not be permitted to sit their competency examination and could ultimately fail their placement. This step is not taken likely and the student must be given the opportunity to rectify areas of weakness ahead of this decision.

End of Placement Form (Appendix 7)

This form should be completed by the Practice Placement Educator, outlining the student’s ability, at the end of placement in the areas of Practice & Theory, Communication & Care and Professionalism. It is useful to complete this form in combination with the professional conduct form. If there is any concern that the student lack sufficient ability in any area this form must be made available to the Clinical Tutor prior to the Clinical Competency Assessment.

If the situation arises where a Practice Placement Educator feels strongly that a student should not pass their clinical placement, this must be highlighted at the earliest possible time, communicated to the student and PEC/Clinical Tutor and a risk of failure form completed.

Final Clinical Competency Assessment Form (Appendix 8)

The Clinical Tutor following the Competency Exam completes this form at the end of the placement. A copy is sent to the Practice Placement Educator and PEC.
Student Learning on Placement

Learning Objectives

High standards are achieved by setting clear learning objectives for the students while on placement. Setting clear learning objectives requires:

- Clear thinking
- Taking responsibility for one’s own learning
- Seeking advice and guidance as to what is manageable and achievable

Learning Objectives for students should cover the following skills:

1. Knowledge-based (information) skills
   - Know about the work of the hospital and department in which they are placed
   - Be able to relate course work to practice.

2. Interpersonal skills
   - Introduce oneself, start conversations, be receptive to others, form relationships at a variety of levels with staff and service users.
   - Develop active listening skills in supportive conversations with service users.

3. Self-awareness skills
   - Be aware of personal strengths and shortfalls within the practice setting and be open to reflect on these and take direction on appropriate action
   - Be aware of fears, stereotypes or prejudices which may be held about service users, and be open to exploring how this impacts on work, as well as understanding the impact of discriminatory behaviour by professionals

4. Professional and work skills
   - To be aware of and practice the key skill of confidentiality
   - To be able to work under direction and on one’s own initiative when appropriate
   - To demonstrate the ability to plan and evaluate all work
• To observe punctuality and other time and organisational norms
• To prepare for and participate in supervision
• To keep a log of learning and activity, and to complete required written work
• To use the support system available through supervision, to question, discuss and develop awareness of strengths and future training needs.

Student Supervision

The purpose of supervision meetings is to provide a formal supportive environment to assist the student in their learning and development while on practice placement.

Although students will work closely with their practice placement educators during their practice education placements, it is important for students to remember that practice placement educators first responsibilities are to their service users and that in addition to facilitating students’ learning they have many additional responsibilities to deal with on a day-to-day basis. It is vital that students give consideration and thought to practice placement educators’ needs and responsibilities as part of establishing a good collaborative working relationship.

In addition to ongoing informal supervision from the practice placement educator, students should receive a weekly formal supervision session of thirty minutes to one hour in duration. These formal supervision sessions should be used to identify and collaboratively agree on objectives that will facilitate the students’ attainment of the best possible practice placement experience and also competency at their level of practice education.

Students should only receive feedback from designated staff such as the practice placement educator or an experienced colleague.

The Professional Conduct Form (Appendix 3) and Supervision Record (Appendix 4) could be used to guide this process. The identification of learning objectives and monitoring of the students’ progress on a week-to-week basis allow for a more structured placement with specific needs of the students identified.

Students and practice placement educators have shared responsibility to identify and negotiate the students learning needs and they are both active partners in the teaching and learning process throughout the course of the placement. Together, the students and practice placement educators should work in partnership to secure a successful outcome for the placement.
Key to this process is professional documentation of all formal supervision sessions. This written documentation enables clear communication between students and practice placement educators and allows collaborative identification and negotiation of teaching and learning goals.

**Supervision Elements**

There are three elements of supervision as follows:

**Accountability:** The student is accountable to the practice placement educator

**Support:** The practice placement educator supports the student in achieving set objectives

**Learning:** Set objectives are reviewed and re-set in the light of achievements

Supervision is for monitoring and review, reflecting on what is done, exploring and expressing issues brought up by work, challenging the student, and being proactive rather than reactive.

Supervision is not a telling off, something to do only when problems arise, a test or an examination or a grievance session.

The most helpful supervision is regular balanced feedback that is supportive and honest.

If there are difficulties say so and if things are going well, tell the student!
Reflective Practice

Introduction

We all learn from experience and from thinking back over our experiences. When done in formal ways, to identify areas for learning, this process is known as reflection.

Schon describes two types of reflection; reflection-in-action, where the individual is thinking through aspects of a problem whilst in the situation, and reflection-on-action which occurs afterwards. Both these activities are needed for development and learning from situations. For example, during a difficult consultation with a patient, you may be reflecting in action by trying to work out how you can improve your communication to get particular information across. Afterwards, when you think back over the consultation and how you might do better next time, you are reflecting on action.

Reflection is an activity that everyone undertakes to some degree. Reflective learning is about making this process explicit and in doing so, maximising learning and providing evidence of reflection.

Reflective learning has become more widely used for a number of reasons, but one important factor is that this type of learning promotes “deep” learning, i.e. the kind of learning where the material is understood in a personal context and builds on previous knowledge.

Reflection also promotes personal development and growth and can help a student to integrate knowledge, skills, attitudes, and values.

While reflection is useful as an exercise, reflective writing adds an extra dimension. By documenting reflection, we can have a useful record of those thoughts, which can be revisited, but the act of writing encourages a further level of depth.

Common purposes of reflective writing include:

- To record experience
- To facilitate learning from experience
- To support understanding and the representation of that understanding
- To develop critical thinking or the development of a questioning attitude
• To encourage metacognition (understanding of how we learn)
• To increase active involvement in, and ownership of, learning
• To increase ability in reflection and thinking
• To enhance problem solving skills
• For reasons of personal development and self-empowerment
• To support planning and progress in research or a project

Reflective learning is practiced in most health and social care professions today, at both undergraduate and post graduate level.

Reflective Practice for Clinical Measurement Science

Reflective practice as a learning tool has been introduced into each stage of the Clinical Measurement Science Degree. It is now a compulsory element of practice education. The Practice Education Coordinator is responsible for the reflective practice teaching and learning on the programme. While on placement students will be required to keep a reflective journal. Three reflective journal entries should be included in their log book and signed off by the practice placement educator as having been completed. Year 4 students will be required to submit four reflections while on placement. If desired reflections may also be reviewed at supervision meetings to discuss situations that arise during placement. The reflection should be a reflective piece (500 words +/- 10%) on an event or experience that occurred during the placement. Professor Graham Gibbs published his reflective cycle in his 1988 book "Learning by Doing". It's particularly useful for helping people learn from situations that they experience regularly, especially when these don’t go well. As one of the models offering most structure and guidance this framework is recommended for students on the BSc in Clinical Measurement Science (Appendix 13).

Irrespective of the situation the reflection must not only describe events, evidence of reflection, critical thinking and self-analysis must be present in order to pass. Appendix 12 outlines the pass/fail criteria. See separate Reflective Practice & Writing document for further information.

As many students find reflective writing difficult it is advised that Practice Placement Educators encourage students to adopt a reflective approach to their learning, by looking back at what went
well and what could have been improved, during their weekly supervision meetings. Students should also be encouraged to include a reflective piece at the end of their case study and case study presentation.
CPD for Practice Placement Educators

Introduction

The role of the Practice Placement Educator (PPE) is fundamental in the continuous development of the clinical measurement profession. In helping to provide education for the future workforce, the PPE offers a service that is fundamental to the effective development of the future workforce. It is therefore essential that the PPE is providing high quality education and supervision and is in turn valued for this contribution.

CPD Opportunities

Currently DIT offers PPEs a 1.5 day Annual CPD Event (in January each year) that includes one full day of generic placement education and a half-day discipline specific education (Appendix 14). PPEs supervising final year projects get an opportunity to meet with the DIT supervisors at this event and to network with other PPEs. It is advised that all designated practice placement educators attend this event annually. If there is more than one designated practice placement educator in a department, attendance may be on a rotation basis.

In addition, it is advised that all staff within a department involved in student supervision undertake the HSE’s online practice education course accessible through HSEland. For a step-by-step guide on how to access this course see Appendix 15.

Becoming an accredited PPE

Many PPEs have expressed a desire to further their education in the area of student education. To facilitate this and to ensure consistency across sites DIT is currently working towards offering PPEs an opportunity to become Accredited Practice Placement Educators.

Becoming an accredited practice placement educator will:
• Provide an opportunity for professional recognition for the role of the Practice Placement Educator (PPE)
• Enable practice placement educators to count their involvement towards their Continuing Professional Development (CPD).
• Promote interprofessional learning and standards for practice placements through the development of a scheme with generic learning outcomes
• Quality assure practice placements in clinical measurement
• Contribute to the maintenance and improvement in standards of patient care

CPD Modules undertaken to become an accredited PPE may be used to contribute towards a Masters qualification if desired. Further information on this will become available in due course.
Appendices
Appendix 1: Induction Checklist

<table>
<thead>
<tr>
<th>Student Name:</th>
<th>Supervisor:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signature:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Start Date</td>
<td>Finish Date</td>
</tr>
<tr>
<td>Start Time</td>
<td>Finish Time</td>
</tr>
</tbody>
</table>

Tick each box when item has been fully explained and understood

<table>
<thead>
<tr>
<th>Introduction Work Role/policy procedures</th>
<th>Health &amp; Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to team</td>
<td>Safety Statement overview</td>
</tr>
<tr>
<td>Job role explained</td>
<td>Fire Safety Exits, Evacuation Drill, Assembly Points</td>
</tr>
<tr>
<td>Reporting structure explained</td>
<td>Cardiac Arrest Call</td>
</tr>
<tr>
<td>Hours of work &amp; break times</td>
<td>Accidents Reporting</td>
</tr>
<tr>
<td>Dress Code/Uniform</td>
<td>Waste Management</td>
</tr>
<tr>
<td>Reporting of absence, late arrivals</td>
<td>Hazardous Material Management</td>
</tr>
<tr>
<td>Telephone usage/mobile phone</td>
<td>Manual Handling Policy</td>
</tr>
<tr>
<td>Post system</td>
<td>Alcohol Policy</td>
</tr>
<tr>
<td>PC/Internet usage policy</td>
<td>No smoking policy &amp; smoking areas</td>
</tr>
<tr>
<td>Security</td>
<td>Accident/Incident Reporting Procedure</td>
</tr>
<tr>
<td>Patient Confidentiality</td>
<td>Local Safe Work Practices</td>
</tr>
<tr>
<td>Tour of facility/location</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>Library</td>
<td>Hospital I.D. obtained</td>
</tr>
<tr>
<td>Local policies and procedures</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2: Supervision Contract

The following details have been agreed at induction between:

Student Name: ______________________________ Placement Level:  

Supervisor Name: ______________________________ Placement No:  

Date: ____________________________________________

Frequency of supervision: ___________________________

Duration: __________________________________________

Location of meetings: ____________________________________________________

Review arrangements and date/s:
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

Any further specific arrangements or needs:
_________________________________________________________________________
_________________________________________________________________________
_________________________________________________________________________

To ensure the Supervision is effective I commit to co-operate with the above arrangements

Signed: ______________________________ Date ______________________

Signed: _____________________________ Date ______________________
Appendix 3: Professional Conduct Form:

To be filled out by Practice Educator at end of 4 week and again at end of placement. It may also be used as a guide for giving feedback for supervision meetings. Mark with a 0 at week 4 and an X at end of placement

| NP: Not Passed | P: Passed | E: Excellent |

Student Name: ____________________________Placement: ________________________

PRACTICE AND THEORY

1. The students ability to put theory into practical work

   NP Weak Ability  P Sufficient Ability  E Excellent Ability  | Not Relevant

2. The students ability to perform the tasks in a suitable and practical way

   NP Weak Ability  P Sufficient Ability  E Excellent Ability  | Not Relevant

3. The students ability to perform examinations with high accuracy

   NP Weak Ability  P Sufficient Ability  E Excellent Ability  | Not Relevant

4. The student’s ability to handle the equipment and evaluate the technical quality of the examination result.

   NP Weak Ability  P Sufficient Ability  E Excellent Ability  | Not Relevant

5. The student’s ability to evaluate the examination result in relevance to the diagnostic question.

   NP Weak Ability  P Sufficient Ability  E Excellent Ability  | Not Relevant

6. The students ability to work in accordance with hygiene and infection control
7. The students ability to show awareness of administrative systems and routines

8. The students ability to meet and inform the patients in a professional manner (respect, empathy, integrity and autonomy)

9. The student’s ability to instruct the patient in order to achieve an optimal examination result.

10. The students ability to take initiative in consultation with the practice educator

11. Recognises own professional limits and competencies and works within professional boundaries

12. The students ability to cooperate with different professionals

13. The students ability to self-critique and have insight into personal strong and weak areas.

14. The students ability to take responsibility for the routine in the clinic (be on time, keep things in order, appear professional)
15. The student's ability to show involvement and take responsibility for his/her own learning and development and critically reflect on one’s acting through discussions with the practice educator.
Appendix 4: Supervision Record

Student Name: ___________________________
Supervisor: _____________________________
Practice Education Week No: _________      Date: ___________________________

Student attended with any written work as specified  [   ]

<table>
<thead>
<tr>
<th>Student’s Agenda</th>
<th>Supervisor’s Agenda – (What is going well/what could be improved?)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Follow on items from last supervision session, if any.
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

The Professional Conduct form may be used to help identify strengths and weaknesses.

Summary of Discussion:
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

Signed PPE: ___________________________ Signed Student: ___________________________
Appendix 5: Return to Placement Discussion Form

This Return to Placement Discussion Form is designed as a guide for the Practice Placement Educator when meeting with students on their return to the hospital from sickness absence.

**Student Name:**

**Placement:**

**Department:**

**Date of discussion:**

**Person conducting interview**

---

### Section 1: Absence Details

<table>
<thead>
<tr>
<th>1. Date of absence</th>
<th>From:</th>
<th>To:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Date of return to department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Did the student follow the correct absence reporting procedure? (if no why not)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Has the PEC been notified?</td>
<td>Yes:</td>
<td>No:</td>
</tr>
<tr>
<td>5. Has as a Doctor’s note been received</td>
<td>Yes:</td>
<td>No:</td>
</tr>
<tr>
<td>6. If absence was for 3 days or more what arrangement has been agreed to make up the time?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary of action points agreed and any other comments

<table>
<thead>
<tr>
<th>Review date for agreed action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Placement Educator’s signature</td>
</tr>
<tr>
<td>Student’s signature</td>
</tr>
</tbody>
</table>

*Please email or send a copy of this form to Maria Mc Neill, Practice Education Coordinator, School of Physics, DIT, D8*
Appendix 6: Risk of Failure Form

- This form is to be completed by the PEC and/or Tutor and PPE in discussion with the student.
- Using the form signifies that the student is at risk of failing the clinical placement.
- Meeting all of the objectives on the risk of failure form does not automatically ensure the placement will be passed.
- The student, PEC/Tutor, PPE and DIT must be provided with copies of this form.

Student: _____________________________________________________________  
Department: __________________________________________________________ 
Clinical Tutor: _________________________________________________________  
PPE: _________________________________________________________________  

Issues of concern:  
1.___________________________________________________________________  
   ____________________________________________________________________  
2.___________________________________________________________________  
   ____________________________________________________________________  
3.___________________________________________________________________  
   ____________________________________________________________________  

Objectives to be achieved and by when:  
1.___________________________________________________________________  
   ____________________________________________________________________  
2.___________________________________________________________________  
   ____________________________________________________________________  
3.___________________________________________________________________  
   ____________________________________________________________________  

Review date:    

Signatures:  
Student:.......................................................... Date:....................... 
PCE/ Tutor:.......................................................... Date:....................... 
PPE:.......................................................... Date:.......................
Appendix 7: End of Placement Form

NOTE: If there is any concern over the students ability this form must be completed and made available to the Clinical Tutor prior to patients Clinical Competency Assessment

I certify that ___________________________ has carried out his/her clinical placement in my Department for the past ________ weeks.

Please indicate whether you consider the student to have sufficient ability during her placement in each of the following categories, as per the professional conduct form.

- Practice and Theory          Yes   No
- Communication and Care      Yes   No
- Professional Role           Yes   No

Overall how would you rate this student’s performance?

Adequate          Good          Very Good          Excellent

If you consider the student not to have sufficient ability in any of the above categories during placement please outline the reasons why.

___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

___________________________________________

Did you complete a Risk of Failure Form?                Yes               No

Were your concerns brought to the attention of the PEC/Tutor?  Yes No

PPE Signature: ________________________________
Date: ______________________

Please send a signed copy of this form to the PEC and Clinical Tutor
Appendix 8: Clinical Competency Assessment

I certify that _____________________________ has passed/not passed (please delete as appropriate) their end of Placement Assessment.

If the student has not passed their end of placement Assessment please outline how this will be addressed.

___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________
___________________________________________________________________________________

Clinical Tutor Signature: ___________________________ Date: _______________________

Student Signature: ___________________________ Date: _______________________

Please send a signed copy of this form to the PPE and PEC.
# Appendix 9: Log Book Assessment

## Student Name

______________________________________

## Hospital/Department

______________________________________

<table>
<thead>
<tr>
<th>Placement Logbook</th>
<th>(10%)</th>
<th>Structure, presentation, style and clarity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(35%)</td>
<td>Inclusion of Daily Logs - Detailing the following:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Patient initials, M/F, DOB, Date of exam, Patient risk factors, Relevant past history, Presenting symptoms/clinical indications, procedure performed or observed, brief results, report/conclusion, any difficulties encountered, own interpretation/impression</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inclusion of 3 reflective journal entries.</td>
</tr>
<tr>
<td></td>
<td>(5%)</td>
<td>Clear outline of work on a weekly basis</td>
</tr>
<tr>
<td></td>
<td>(50%)</td>
<td>Appropriateness and Completeness of Information.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Confirmation of accuracy by Clinical Scientist</td>
</tr>
</tbody>
</table>

## Overall

### Practice Educator

______________________________

### Overall Comments on Placement Logbook:

_______________________________________________________________________________________________________________
_______________________________________________________________________________________________________________
_______________________________________________________________________________________________________________
_______________________________________________________________________________________________________________
_______________________________________________________________________________________________________________

### Signatures:

Clinical Tutor: ___________________________ Date: ___________________________
Appendix 10: Case Study Assessment

Student Name: ______________________________________
Hospital/Department: ______________________________________
Practice Educator: ____________________________________

<table>
<thead>
<tr>
<th>Case Study Report</th>
<th>(10%) Structure, presentation, style and clarity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(30%) Content of Report – Detailed description of the case study that was carried out, and associated instrumentation. The report should include the following: a brief introduction and background to the medical condition investigated or studied.</td>
</tr>
<tr>
<td></td>
<td>(40%) Results and analysis – brief results, report/conclusion, any difficulties encountered, own interpretation/impression of clinical results obtained. Evaluation of the technical and experimental limitations should be carried out.</td>
</tr>
<tr>
<td></td>
<td>(20%) Discussion and Conclusion – a clear and well thought out discussion or interpretation of the clinical test used or the clinical results obtained.</td>
</tr>
<tr>
<td>Overall Mark</td>
<td></td>
</tr>
</tbody>
</table>

Signatures:

Clinical Tutor ______________________________
Date ______________________________
# Appendix 11: Case Study Presentation Assessment

<table>
<thead>
<tr>
<th>Student Name</th>
<th>____________________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital/Department</td>
<td>____________________________</td>
</tr>
<tr>
<td>Practice Educator</td>
<td>____________________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Case Study Presentation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(40%) Content of Presentation</td>
<td>Clear comprehensive and concise summary of work, pitched at the appropriate level and set in the context of the overall project.</td>
</tr>
<tr>
<td>(15%) Structure of Presentation</td>
<td>Clear evidence of a thoroughly planned presentation including introduction, logical development of the subject with a concise summary. Appropriate utilisation of time within the allocated period, without over-running or failing to use all of the time</td>
</tr>
<tr>
<td>(10%) Use of Visual Aids</td>
<td>Neat transparencies (slides etc.) with neat text and illustrations. Content carefully chosen to illustrate salient aspects of the project. Effective utilisation of display material including artefacts/modes as appropriate.</td>
</tr>
<tr>
<td>(15%) Delivery</td>
<td>An audible, fluent, confident and interesting presentation. Minimal use of prompt notes and proper use of English.</td>
</tr>
<tr>
<td>(20%) Responses to Questions</td>
<td>Responds authoritatively, concisely and yet completely to all questions on the content and related issues.</td>
</tr>
</tbody>
</table>

**Overall Mark**

Signatures:

Marker: ____________________________ Date: ____________________________
Appendix 12: Assessment of Reflective Journals

The journals are marked on a pass/fail basis using the following criteria:

**PASS**

**Structure:** The reflection contains 500 words +/- 10%
Reflections are submitted on or before the required deadline.

**Clarity of Thought:** The student provides a clear description of an event or experience. Issues are set out clearly and logically. Writing is well organised and coherent with appropriate use of language throughout. The reflection contains a clearly defined conclusion with learning/action points identified.

**Evaluation:** The student identifies personal feelings, thoughts and actions/reactions that occur during the event or experience. The student demonstrates the ability to evaluate and make judgements about the experience.

**Analysis:** The reflection moves beyond description (what) of the experience to an analysis (why and how) i.e. how the experience/event contributed to your understanding of self, others, and/or the concepts encountered on the programme or through your engagement with course work. The event or experience is viewed from multiple perspectives.

**Self-reflection:** The reflection demonstrates the ability to recognise and assess emotional reactions and arrive at new ways of thinking.

**FAIL**

**Structure:** Word count is not adhered to. Reflection submitted late without prior agreement.

**Clarity of thought:** A clear description of an event or experience is not provided. Issues are not set out clearly and logically. Writing is disorganised and incoherent with evidence of inappropriate language in use. The reflection does not contain a clearly defined conclusion. No learning/action points identified.

**Evaluation:** The student fails to identify any personal feelings, thoughts and actions/reactions that occurred during the event or experience. The ability to evaluate and make judgements about the experience is not evident.

**Analysis:** The reflection does not move beyond description (what) of the experience. How the experience/event contributed to the students understanding of self, others, and/or the concepts encountered on the programme is not evident. The event or experience is viewed purely from the students’ own perspective.

**Self-reflection:** The reflection demonstrates no ability to recognise and assess emotional reactions and arrive at new ways of thinking.
Appendix 13: Gibbs Model of Reflective Practice

Step 1: Description: What happened?
Be specific and just describe the event or experience. No analysis required for this section. Keep it brief.

Consider the following questions.

- When and where did this happen?
- Why were you there?
- Who else was there?
- What happened?
- What did you do?
- What did other people do?
- What was the result of this situation?

Step 2: Feelings: What were you thinking and feeling?
This section does not require analysis. It describes your feelings, thoughts, actions and reactions. Consider questions like these to guide your reflection.

- What did you feel before this situation took place?
- What did you feel while this situation took place?
- What do you think other people felt during this situation?
- What did you feel after the situation?
- What do you think about the situation now?
- What do you think other people feel about the situation now?

Step 3: Evaluation: What was good and bad about the experience?
Again this section does not require analysis it mainly focuses on making judgments about the events. If a lot of things happened during the event just focus on one or two.
Consider the following questions.

- What was positive about this situation?
- What was negative?
. What went well?
. What didn’t go so well?
. What did you and other people do to contribute to the situation (either positively or negatively)?

Step 4: Analysis: What sense can you make of the situation?
This section is purely analytical and seeks to explain the causes and consequences of things that happened during the experience or event.

- Reconsider the things that went well or not so well and answer the following questions.
- What could you have done to avoid the negative situation?
- How could you have improved on the positive outcome?
- Was your input in the situation helpful?
- Why was it useful?
- Did you have a similar experience in the past?
- Did the past experience help you to deal with this one?
- If you did not contribute to the experience, why not?
- Was your experience similar to others in the room (if not alone)?
- Why was this the case?

Step 5: Conclusion: What else could you have done?
Once you’ve evaluated and analysed the situation, you can draw conclusions and sum up what you learnt from the experience. Be specific about what you learnt or realised about yourself. Give specific details rather than generalise - not, for example, “I don’t have adequate skills”.

Consider the following questions.

. How could this have been a more positive experience for everyone involved?
. What were the barriers to you doing this?
. If you were faced with the same situation again, what would you do differently?
. What skills do you need to develop, so that you can handle this type of situation better?
Step 6: Action Plan: If the situation arose again, what would you do?

This section is not analytical. It simply states actions that are designed to improve your knowledge, ability or experience. You can include the justification for and value of your actions in the action plan. Be specific about what you plan to do.

Consider the following questions:

- What further training do I need?
- Who do I need to speak to?
- What course work do I need to revise?
- What further experience do I need?
- What new reading do I need?
- Life in general
Appendix 14: Practice Placement Educator CPD Event

Practice Placement Education
CPD Workshop

Date: January (2nd Friday & Saturday)
Venue: DIT, Dublin 8

Agenda

Day 1: 10.00am – 5.30pm

• Effective Supervision
• Effective Communication Skills
• Organisation & Time Management Skills
• Critical Thinking & Reflective Practice
• Formative Assessment
• Dealing with an underperforming student
• Statistics for final year projects

6 pm – Wine Reception

Day 2: 9.30am – 12.30pm

• Case Studies Guidelines
• Log Book Requirements
• Final year project Guidelines
• Statistics for final year projects

Material and information is provided through presentation, workshops and role-play.
Appendix 15: On-Line Practice Education Course through the HSE’s learning and development website.

Step 1
Log on to www.hseland.ie

Step 2 – Create an account
Anyone can register with HSEland but you will be asked to provide details of your employment.
Step 3 – Click on Health and Social Care Professions Hub

Step 4 – Click on Practice Education – drop-down menu appears
Step 5. **From drop-down menu click – On-line Practice Education Course (2nd from top)**

Enjoy the course!
Appendix 16: Code of Practice for Clinical Measurement Students

The following is the code of practice to be followed by DIT Clinical Measurement students during hospital-based placement

1. Student should be aware that they are dealing with patients, who will quite often be unwell and worried about the tests, which have to be conducted. The confidentiality and wishes of the patient must be respected at all times.

2. **Patient Confidentiality:** Under no circumstances is a student allowed to discuss any issue relating to a patient outside of the workplace, or with any third party. A student can only discuss relevant physiological issues with the supervisor and ideally a patient should be referred to by hospital number and not by name. Any other local rules in relation to patient confidentiality will also apply.

3. Students MUST dress appropriately, with a white coat (tunic type), black trousers and flat shoes. Trainers are not permitted. The student must also observe normal hygiene criteria in relation to their own appearance in the workplace.

4. The use of cosmetics, jewellery, long finger nails and uncovered long hair may be restricted or unsuitable in certain laboratory situations, so students must follow whatever regulations are applicable within the hospital. The advice and approval of their supervisor must be obtained in relation to these issues.

5. No student is to be left alone with a patient. Another staff member must be present or in close proximity to them at all times, and in situations where measurements are being conducted, an appropriate staff member must be present. (A senior staff member may nominate a junior in certain circumstances).

6. Normally students will be required to work from 9.00am to 5.00pm during placement, however these times may be altered by agreement with the supervisor. If a student is unwell and unable to attend placement he/she must notify their supervisor by telephone (texting is not acceptable) prior to their normal start time. A follow up email should be sent to the Practice Education Coordinator and Clinical Tutor.

7. Students are required to attend all tutorials while on placement. If a student cannot attend a tutorial he/she must notify their Clinical Tutor in advance.

8. Students must follow all relevant instructions from the supervisor while on placement.
9 If a situation arises where a student knows a patient (e.g. relative, neighbour etc.) they must immediately declare this to the supervisor, who will then decide whether the student should be absent from all measurements/discussions related to that patient.

10 Each student is required to maintain a logbook, which is a record of the tests and observations conducted in the workplace, (see separate logbook instructions).

11 No patient identifier details (name, address, DOB, MRN) should appear anywhere in the log book, stating e.g. 56 yr. old male with previous MI, would be appropriate. This logbook should contain the daily start and finish times, a daily record of the work observed/conducted, and should be signed by the supervisor each day. Three reflective accounts for 3rd year and four reflective accounts for 4th year should also be included. This logbook will form part of the assessment process and must be available for inspection by supervisors and DIT at all times.

12 The standard DIT student regulations 2009/2010 will also apply for the full duration of the placement.

13 I agree to comply with the above as part of the conditions of my hospital placement. I understand that if I do not comply with the conditions as set out in the “Code of practice for Clinical Measurement Students”, I am liable to have my placement terminated.

__________________________________  ___________________  ____________
Student Name    Student Number  Date