UNIVERSITY OF CAMBRIDGE

Institute of Continuing Education

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Postgraduate Certificate in Clinical Research, Education and Leadership

2021-2022

Course code: 2122PCB412

COURSE GUIDE

University of Cambridge Institute of Continuing Education, Madingley Hall,
Cambridge, CB23 8AQ
Tel 01223 746222 www.ice.cam.ac.uk

Welcome to the **Postgraduate Certificate in Clinical Research, Education and Leadership**, a University of Cambridge award offered by the Institute of Continuing Education (ICE), designed collaboratively with the University of Cambridge Health Partners, the Academic Health Sciences Centre in conjunction with the School of Clinical Medicine. The Postgraduate Certificate is taught and awarded at FHEQ level 7 (i.e. at Master's level) and attracts 60 credits at level M. The award is completed in one academic year. For further information about academic credit please see our website, http://www.ice.cam.ac.uk/studying-with-us/information-for-students.

The Postgraduate Certificate comprises three modules providing a total of approximately 90 contact hours with additional between-module reflection, study and assignment work. A virtual learning environment (VLE) will support students' learning throughout the programme. The three modules are:

- Clinical Leadership
- Clinical Research
- Clinical Education

The Postgraduate Certificate in Clinical Research, Education and Leadership is designed to be flexible and accessible to healthcare professionals and complement employment within a clinical environment. The aim of the programme is to:

- Create an international cohort of consultants, GPs and dentists able to pursue and develop their roles in a rapidly-changing and challenging environment of clinical medicine
- Develop the confidence within this cohort to lead service improvement for safe and high quality patient care, with the required knowledge, skills and capability to have a positive personal impact on the work of others in their clinical team and wider service
- Develop clinicians with an understanding of teaching, professional development and assessment in the field of clinical medicine
- Develop clinicians with an understanding of research methodologies and ethical considerations relevant to clinical medicine
- Encourage participants to develop as reflective practitioners with the emotional intelligence, resilience and astuteness required to be effective clinical leaders
- Encourage a commitment to intellectual challenge and evidence-based clinical practice informed by the latest conceptual and theoretical knowledge of medical education, research methods, ethics and clinical leadership and governance

You will acquire through the programme a grounding in each of these areas, and the syllabuses for each of the modules are included in this document. The reading list and resources are available once accepted onto the programme and within the VLE.

The course is taught through a mixture of face-to-face and online sessions. During online sessions the course content will be delivered, and the learning outcomes met, through the use of the video-based teaching platforms. The course Virtual Learning Environment (VLE) will be used throughout the course. Please note that this will be reviewed in line with the latest public health guidance available at the time. If required, to ensure the health and safety of students, we may look to utilise alternative teaching formats and will contact students if we expect changes to the course delivery

Teaching staff

Professor Angela Aristidou: Assistant Professor at Warwick Business School/Junior Scholar at CASBS Institute Stanford University

Dr Ben Challis: Honorary Consultant Endocrinologist, Addenbrooke's Hospital, Cambridge

Dr Nicola Jones: Consultant and Clinical Lead for Critical Care at Papworth NHS Foundation Trust, Cambridge

Dr Silvia Karcheva: Consultant Anaesthetist and Educational Supervisor at Addenbrooke's Hospital, Cambridge

Dr Thomas O'Connor: Senior Dentist, Cambridge Community Dental Services and Honorary Dental Surgeon, Addenbrooke's Hospital, Cambridge

Dr Pamela Todd: Consultant Dermatologist and Deputy Director of PGME at Addenbrooke's Hospital, Cambridge

Administrative staff

Head of Academic Centre Administration – Professional Studies: Gillian Barclay, Email: gillian.barclay@ice.cam.ac.uk , Tel: 01223 760063

Academic Centre Coordinator – Professional Studies: Email: crel@ice.cam.ac.uk , Tel: 01223 746237

Academic Centre Administrator – Professional Studies: Liz Webb, Email: liz.webb@ice.cam.ac.uk , Tel: 01223 746408

Venue

Madingley Hall is the University of Cambridge's campus dedicated to continuing education for adults. The magnificent Hall was built in the sixteenth century and acquired by the University in 1948. The Hall has been used by the Institute of Continuing Education as a venue since 1975.

Any face-to-face sessions will be taught in one of 14 classrooms at Madingley Hall and, occasionally, at other venues. Classrooms are arranged and equipped to encourage effective small group learning and peer interaction. Technology-enhanced learning, including lecture capture where appropriate, is used in many classes and wi-fi is available throughout the site.

We also provide a range of social learning spaces which you can make use of before, or after, your class. Seven acres of superb gardens and grounds designed by Capability Brown provide space to think, reflect and relax. We offer a range of catering including formal dining, sandwiches and snacks, and a full-service bar. If you are travelling a long distance you may wish to book accommodation in one of the Hall's 62 en suite bedrooms.

The Hall is situated three miles west of Cambridge with easy access from the M11 and the A14. There is ample free on-site car parking. Central London and Stansted Airport can be reached in under an hour by train from Cambridge railway station. Taxis from the railway station to Madingley Hall typically take around 20-25 minutes. Full directions are given on our website at: http://www.ice.cam.ac.uk/about-us/how-find-us

Contact details of ICE

Institute of Continuing Education
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Module 1

Clinical Leadership

Michaelmas Term 2021

Teaching dates*	27 – 30 September 2021 18 November 2020 19 November 2020 (tbc) 10 June 2022	**Time**	9am – 6pm
Venue	Virtual classroom, Madingley Hall		
Tutors	Dr Nicola Jones and Dr Thomas O'Connor; Professor Angela Aristidou		

**Please note that teaching dates for this unit are provisional and may be subject to change in accordance with government/University guidelines*

Aims

To develop students as healthcare leaders with the required knowledge, skills and capability to have a positive personal impact on the work of others in their clinical team and wider service.

To contribute to the development of emotional intelligence, resilience and political astuteness required to be an effective healthcare leader in a rapidly changing and challenging environment.

To develop students who are committed to safe and high-quality patient care.

To develop students who are confident in leading for improvement and leading across a wider system of healthcare.

Content and presentation of the module

There are eight themes within the Clinical Leadership Module:

Theme 1: Clinical Leadership in the NHS;
Theme 2: Self-awareness and personal leadership qualities;
Theme 3: Project/change management theories and practice;
Theme 4: The impact of effective leadership within the clinical arena and how to enhance leadership. Leadership resilience strategies;
Theme 5: Teams: An evidence-based approach to people management and developing high-performing teams;
Theme 6: Rescuing failing teams, managing difficult behaviour;

Theme 7: Leading for improvement, strategic development, business planning and marketing;

Theme 8: Presenting projects, change management, organisational theory. Change within large organisations – the NHS, learning from other industries.

Provisional dates and content

	Teaching date	Topics
Pre-module Preparation: Establishing a VLE personal profile, completion of pre-module background reading, homework and reflective log.		
9am – 6pm	27 September 2021	Introduction to the programme; leadership in the NHS, Purpose, People Processes: Clinical Leadership and Management "When Information and Governance disconnect" (Themes 1, 4).
9am – 6pm	28 September 2021	Self-awareness and personal leadership qualities; Financial Flows and Leveraging Improvement (Themes 2, 4).
9am – 6pm	29 September 2021	Leading for improvement – review of projects and key leadership challenges facing the NHS (Themes 3, 4 and 7).
9am – 6pm	30 September 2021	Operations Management and Module Review (Theme 8)
9am – 6pm	18 November 2021 19 November 2021 additional date if required	Healthcare Simulation and Service Improvement Project review. (All Themes). Service Improvement Project masterclass.
9am – 6pm	10 June 2022	Service Improvement Project presentations

Please note that these dates are provisional and whilst every effort is made to avoid changes to this programme, published details may be altered without notice at any time. The Institute reserves the right to withdraw or amend any part of this programme without prior notice.

Outcomes

By the end of the module students will have:

- An increased understanding of leadership concepts;
- Developed their leadership impact;
- An increased understanding of the concepts of resilience and be able to enhance their resilience strategies;
- An increased knowledge of the NHS environment and leadership challenges presented by this;
- Gained project management methodology skills through the design and delivery of a service improvement project;
- Explored a range of leadership perspectives;

- Understand the impact of culture and organisational context on their personal leadership style and the team leadership task;
- Acquired a framework for understanding and responding to "difficult behaviour";
- Practised and refined their leadership skills;
- Participated in a leadership case scenario related to a healthcare system issue;
- An understanding of the evidence base and best practices for team leadership;
- Practiced their presentation and personal leadership impact skills individually and as part of a group;
- Explored leadership behaviours that contribute to safe and reliant patient care; improved quality of care and improved outcomes

Formative assessment

Students will be assessed formatively throughout the module on evidence of regular reflection in their online reflective diary, demonstration of active participation in online discussion, and on their peer review of other students, both as the observer and as the learner, as evidenced in their written reflections.

Summative assessment

A retrospective report on the service improvement project*, in the form of:
a) a written abstract (300 words maximum)
b) an academic project poster
c) a verbal presentation (10 minutes followed by 5 minutes Q&A) supported by a slideshow, eg PowerPoint© (maximum of 6 slides).

*The service improvement project will be carried out by the candidate throughout the academic year, on an individual title approved by the tutors in Michaelmas term.

Combined these will amount to 2,000 words or equivalent (66.6% of summative assessment). Students may also be asked to submit a short proposal in advance.

A written assignment from the healthcare simulation workshop of 1,000 words or equivalent (33.3% of assessment). This will involve reflection on the subsequent application of skills learnt during the simulation in the actual workplace during the 2 week period immediately following the event.

Closing date for the submission of assignments 6 June 2022 to be confirmed.

Assignment following simulation workshop

Service Improvement Project

Service Improvement Project to be presented on 10 June 2022

Resources and Background Reading Materials

Online:
Academy of Royal Colleges & NHS Institute for Innovation and Improvement *Medical Leadership Competency Framework 3rd Edition July 2010,* available online at
https://www.leadershipacademy.nhs.uk/wp-content/uploads/2012/11/NHSLeadership-Leadership-Framework-Medical-Leadership-Competency-Framework-3rd-ed.pdf

BMJ Quality Improvement Series, available online at https://www.bmj.com/quality-improvement

BMJ Open Quality, available online at https://bmjopenquality.bmj.com/

FMLM, *FMLM Leadership and Management Standards (*2016), available online at
https://www.fmlm.ac.uk/fellowship/become-an-fmlm-fellow

GMC, *Leadership and Management for all doctors* (2012), available online at
https://www.gmc-uk.org/ethical-guidance/ethical-guidance-for-doctors/leadership-and-management-for-all-doctors

NHS Leadership Academy *Healthcare Leadership Model Version 1 2013,* available online at
https://www.leadershipacademy.nhs.uk/wp-content/uploads/2014/10/NHSLeadership-LeadershipModel-colour.pdf

RAEng, *Engineering better care a systems approach to health and care design and continuous improvement* (2017) available online at:
https://www.raeng.org.uk/publications/reports/engineering-better-care

Books:
Barr J and Dowding L. *Leadership in Health Care* (2nd edition). London: Sage, 2012.
Gillam S. *Leadership and Management for Doctors in Training: A Practical Guide.* London: Radcliffe Publishing, 2011.

Hartley J, Benington J. *Leadership for Healthcare*. Bristol: Policy Press, 2010.

Northouse PG. *Leadership: Theory and Practice* (6th edition)*.* California: Sage Publications, 2012.

Price A and Scowcroft A. *Essential Skills for Influencing in Healthcare: A Guide on How to Influence Others with integrity and Success.* London: Radcliffe Publishing, 2012.

Swanwick T, McKimm J (eds). *ABC of Clinical Leadership.* Chichester: Wiley-Blackwell, 2011.

Module 2

Clinical Research

Lent Term 2022

Teaching dates   17 – 20 January 2022   **Time**   9am – 6pm
                     17 February 2022

Venue   Virtual classroom, Madingley Hall, Madingley, Cambridge CB23 8AQ

Tutor   Dr Ben Challis

*Please note that teaching dates for this unit are provisional and may be subject to change in accordance with government/University guidelines

Aims

To allow students to participate effectively in clinical research and to provide students with a framework to develop research ideas into publishable studies.

Provide students with the knowledge to understand the importance of research activity in the future of clinical care within healthcare systems and tertiary health care institutions.

To provide students with insight into study design, funding and management, and understanding of the regulatory environment in which research is conducted.

Contribute to continuing professional development of healthcare professionals by providing knowledge of research and academic career pathways.

Content and presentation of the module

There are eight themes within the research module:

Theme 1: Understanding the role of research in clinical practice and the role of clinicians in conducting research, and the elements of good clinical practice;
Theme 2: Effective review of the literature;
Theme 3: Understanding research methodologies;
Theme 4: The clinical study design process and ethical approval;
Theme 5: Publication and dissemination;
Theme 6: Funding applications and grant writing skills;
Theme 7: Statistics, data analysis and data presentation;
Theme 8: Critically appraising the literature
Theme 9: Research career pathways.

In addition, a Good Clinical Practice Course is completed electronically.

Provisional dates and content

	Teaching date	**Topics**
Pre-module Preparation: Establishing a VLE personal profile, completion of pre-module background reading, homework and reflective log.		
9am – 6pm	17 January 2022	Introduction to the module; the role of research, the relationship between research, clinical practice, service improvement and education. Developing a research question (Themes 1 and 9). Effective review of the literature (Theme 2).
9am – 6pm	18 January 2022	Research methods (Theme 3).
9am – 6pm	21 January 2022	Introduction to research ethics, Good Clinical Practice and regulation (Theme 4). Publication and dissemination (Theme 5). Funding applications and grant writing skills (Theme 6)
9am – 6pm	20 January 2022	Statistics for clinical researchers (Theme 7). Assignment preparation and planning.
9am – 6pm	17 Feb 2022	Critically appraising the literature (Theme 8).

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Outcomes
By the end of the module students should be able to:

- Describe the importance of research within the clinical environment;
- Understand the inter-dependence between research, clinical practice, healthcare education, and quality improvement;
- Develop an idea from the initial concept to a publishable study;
- Understand the funding and regulatory structures for healthcare research;
- Be able to plan a career as an academic clinician scientist, or research-active clinician.

Formative assessment
Students will receive formative assessment throughout the course by use of reflective logs, peer feedback, and tutor discussion.

Summative assessment
Summative assessment will be conducted using a written assignment (2500 - 3000 words) in the form of a theoretical research project proposal in an area of clinical practice relevant to the student's own speciality or interest. The submission deadline will be confirmed at the start of the course.

Closing date for the submission of assignment to be confirmed

Resources and Background Reading Materials

Health Education England guidance on Clinical academic careers:
https://www.hee.nhs.uk/our-work/developing-our-workforce/clinical-academic-careers

Guidance on academic training in Intensive Care Medicine. The Faculty of Intensive Care Medicine:
http://www.ficm.ac.uk/sites/default/files/Academic%20Training%20in%20Intensive%20Care%20Medicine%20v%201.0%20Jan%202013.pdf

Supporting Academic General Practice:
https://sapc.ac.uk/article/supporting-academic-general-practice

British Society for Oral and Dental Research:
http://www.bsodr.org.uk

NIHR Clinical Trials Toolkit:
http://www.ct-toolkit.ac.uk

Core Outcome Measures in Effectiveness Trials (COMET) Initiative:
http://www.comet-initiative.org

Enhancing the Quality and Transparency of Health Research (EQUATOR network):
http://www.equator-network.org

The Health Research Authority:
http://www.hra.nhs.uk/

Good Clinical Practice:
http://ichgcp.net/

Module 3

Clinical Education

Easter Term 2022

Teaching dates*	25 – 18 April 2022 12 May 2022	**Time**	9am – 6pm
Venue	Virtual classroom, Madingley Hall, Madingley, Cambridge CB23 8AQ		
Tutors	Dr Silvia Karcheva and Dr Pamela Todd		

**Please note that teaching dates for this unit are provisional and may be subject to change in accordance with government/University guidelines*

Aims
Ensure students develop advanced skills and motivation for teaching.

Allow students to contribute to continuing development of healthcare professionals by stimulating inter-professional education.

Develop students as teachers and prepare them for the high standards of revalidation and appraising of the educational aspect of their work.

Content and presentation of the module

There are eight themes within the research module:

Theme 1: Introduction to small group teaching;
Theme 2: Becoming an effective clinical supervisor;
Theme 3: Principles of assessment and appraisal;
Theme 4: Technology enhanced learning (TEL) Part I: eLearning;
Theme 5: Technology enhanced learning (TEL) Part II: Simulation;
Theme 6: Teaching practical clinical skills;
Theme 7: Trainees in difficulty;
Theme 8: Educational research.

Provisional Dates and content

	Teaching date	Topics
Pre-module Preparation: Establishing a VLE personal profile, completion of pre-module background reading, homework and reflective log.		
9am – 6pm	25 April 2022	Meeting the faculty and setting objectives. Large group vs. small group teaching (Theme 1). *In situ* training and teaching a practical skill (Theme 6).
9am – 6pm	26 April 2022	Principles of assessment. Feedback and Evaluation. Principles of appraisal (Theme 3). Roles and responsibilities of educational and clinical supervisors (Theme 2). E-portfolio and ARCP. Trainees in difficulty (Theme 7).
9am – 6pm	27 April 2022	Technology enhanced learning: e-Learning, e-Hospital, simulation (Themes 4 & 5). Designing a training programme. Educational research. Quality assurance and evaluation of training (Theme 8).
9am – 6pm	28 April 2022	Round up session. Students' teaching episodes (5 minute presentation).
9am – 6pm	12 May 2022	Workshop on students' assignments (reflection on the work during the course and guidance on the final assignment).

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Outcomes

By the end of the module students should be able to:

- Understand the principles of teaching and learning based on the evidence and theories of adult learning;
- Deliver teaching tailored to appropriate working environments;
- Understand the relationship between teaching, learning and assessment;
- Understand the relationship between knowledge, skills and attitudes;
- Manage groups and enable group interaction;
- Engage students at different stages and abilities and develop an awareness of student's stage of self-direction;
- Set objectives and match learner's and teacher's expectations and encourage active self-directed learning;
- Understand the features of real and virtual learning environment;
- Develop technology-enhanced learning (TEL) and create educational programmes.

Formative assessment
Formative assessment is delivered throughout the course and includes the pre-course preparation, a reflective process following each session, and the short teaching episode during the round-up session. Students will also be formatively assessed on their active participation during class sessions and workshops.

Summative assessment
Students will submit three assignments: reflection on a teaching episode (750 - 1000 words), an example of a training programme, an e-learning module or a simulation scenario (750 - 1000 words or the equivalent), and an essay on a topic of the taught programme (1000 - 1,500 words). The three assignments should total 3,000 words or the equivalent.

Closing date for the submission of assignment to be confirmed

Resources and Background Reading Materials

The materials for pre-class preparation, including the reading between class sessions, will be posted to the VLE prior to the sessions.

Academy of Medical Educators (2014) Professional standards for medical educators: http://www.medicaleducators.org/write/MediaManager/AOME_Professional_Standards_2014.pdf

GMC (2015) Outcomes for students (Tomorrow's Doctors) available at: www.gmcuk.org/undergrad_outcomes

Bleakley A ,Bligh J. and Browne J (2011) *Medical Education for the future*. Springer: London.(2011)

Cook V, Daly C and Newman M (2012*) Work-based learning in clinical settings. Insights from socio-cultural perspectives.* London: Radcliffe

Dornan T., Mann K., Scherpbier A and Spencer J. (2011) *Medical Education. Theory and practice.* Churchill Livingstone: London

Benner, P (1984) *From novice to expert: Excellence and power in clinical nursing practice.* Menlo Park: Addison-Wesley 13-34

Bradbury H, Frost N, Kilminster S and Zukas M (2010) *Beyond Reflective Practice. New approaches to professional lifelong learning*. London: Routledge

Postgraduate Certificate in Clinical Research, Education and Leadership

Teaching dates 2021/22

Please note that teaching dates are provisional and may be subject to change.

Module 1: Clinical Leadership

Day 1	27 September 2021
Day 2	28 September 2021
Day 3	29 September 2021
Day 4	30 September 2021
Day 5	18 November 2021 (19 November 2021 if needed)
Day 6	10 June 2022

Module 2: Clinical Research

Day 1	17 January 2022
Day 2	18 January 2022
Day 3	19 January 2022
Day 4	20 January 2022
Day 5	17 February 2022

Module 3: Clinical Education

Day 1	25 April 2022
Day 2	26 April 2022
Day 3	27 April 2022
Day 4	28 April 2022
Day 5	12 May 2022

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