DISSEMINATION & IMPLEMENTATION SCIENCE (CERTIFICATE)

Overview
Dissemination and Implementation (D&I) science is the study of methods and strategies to facilitate the spread, adoption, implementation, and sustainment of evidence-based practices, interventions and policies in real-world and diverse health settings. As a transdisciplinary scientific field, D&I science can address multiple cross-cutting research topics (e.g., reducing disparities in access to and quality of care; use of innovative technologies and data science to improve routine care) and health conditions (e.g., mental health, cancer and cardiovascular disease morbidity and mortality, geriatric care) of high priority. D&I Science also has the potential to make precision health more actionable and relevant and can make the translation of discoveries in this and other high priority areas more rapid.

The D&I Science Graduate Certificate Program is designed to provide pragmatic training to researchers who want to develop competencies in D&I science and practice which can be applied across multiple topic areas and settings in health services, clinical and community health, and public health research. The program is intended to provide researchers with solid foundational skills in D&I science, as well as intermediate and advanced skills in select D&I competency areas.

The D&I Science Graduate Certificate Program has three sponsoring units. The Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS) acts as the primary sponsor, and the Clinical Science Graduate Program at the University of Colorado Anschutz Medical Campus acts as the secondary sponsor. The Colorado Implementation Science Center for Cancer Control and Prevention (1 P50 CA244688-01) serves as an additional sponsor. It is coordinated through the ACCORDS Dissemination and Implementation Science Program.

Admission Requirements
- Degree: BA/BS
- GPA: A minimum of 3.00 is recommended
- Prerequisite courses: N/A

Applicants for the D&I Certificate Program must submit the following documents to the program for review:

- Graduate Certificate Application Form – see below for guidance on which form to complete.
- Statements of D&I Interests (200-word limit per question):
  - What makes you interested in seeking specialized training in Dissemination and Implementation Science?
  - What do you hope to gain professionally from the certificate program?
- Curriculum Vitae (CV) or Resume
- Transcripts from Highest Degree (current or completed)
  - You will need to contact the academic institution that you attended/are attending to obtain an unofficial or official transcript. The transcript must include a transcript legend. Typically, this is done through the Office of the Registrar but this could vary depending on the school or university.
  - Unofficial transcripts are acceptable for US institution transcripts
  - Official transcripts are required for any transcripts obtained from international institutions. In addition, if your transcript was issued in a language other than English, you must also provide a certified English translation of the transcript. CU Denver does not have a preferred translation provider; we recommend that you use an ATA member company.

When requesting an official transcript from your school and/or a certified translation of your transcript please instruct the school/translation service to send your transcript directly from their office to:

Clinical Science Program
ATTN: Amanda Whiting
University of Colorado Denver
12401 East 17th Avenue, Campus Box B141
Leprino Bldg, Rm 351
Aurora, CO 80045

Official electronic transcripts are encouraged and should be amanda.g.whiting@cuanschutz.edu (https://ucdenverdata.formstack.com/forms/d_i_certificate_program)

Special Request: Due to the situation with the Coronavirus, we are unable to review transcripts that are mailed to the campus. Please make sure to request electronic transcripts and if those are not available, provide the program with documentation of your efforts.

- Special guidance for MD applicants: must include a transcript from an undergraduate degree in addition to the transcript from your MD degree.
- Special guidance for International applicants (applicants that are NOT US Citizens or US Permanent Residents)
  - In addition to the general admission requirements listed above, international applicants may need to provide proof of English language Proficiency (ELP).
  - In addition, we currently do not have any research or teaching assistantships to support the educational costs of international students.
  - We encourage you to contact Galit Mankin (Galit.Mankin@cuanschutz.edu) with your understanding of what your application should include in terms of these materials to confirm.

Please note that the D&I Certificate Program does not provide stipends to assist with tuition and/or room and board expenses which are unnecessary for this fully online program.

Application Deadlines
- Applications done once a year for the Summer or Fall semesters.
- March 1, 2021 for Summer or Fall semesters (starts June and August respectively)

Applications
IMPORTANT – guidance on selecting the appropriate D&I Certificate application:
- If you are not currently affiliated with the University of Colorado, complete the SLATE (University of Colorado Graduate school application) at https://application.admissions.ucdenver.edu/apply/
SLATE applications will open on Feb 1.

If you are a current Current University of Colorado (CU) Graduate Student at Anschutz Medical Campus (AMC) OR Downtown Denver Campus (DC), complete the Formstack application at https://ucdenverdata.formstack.com/forms/d_i_certificate_program (https://ucdenverdata.formstack.com/forms/d_i_certificate_program/)

Certificate Requirements
Complete a total of 12 credit hours over a 3-year period:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSC 6750</td>
<td>Designing for Dissemination and Sustantability</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 7653</td>
<td>Dissemination and Implementation Research in Health</td>
<td>3</td>
</tr>
<tr>
<td>CLSC 6560</td>
<td>Designs and Mixed Methods in Implementation Research</td>
<td>2</td>
</tr>
</tbody>
</table>

Complete 5 Elective credits from the courses below:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLSC 7663</td>
<td>Context &amp; Adaptation in D&amp;I Research</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 6770</td>
<td>Implementation Science Grant and Article Funding</td>
<td>2</td>
</tr>
<tr>
<td>CLSC 6850</td>
<td>Adv Topics: Dissemination and Implementation Sci</td>
<td>1</td>
</tr>
</tbody>
</table>

Electives approved by Certificate Director (variable in length)

Learning Objectives
The certificate program courses have been mapped to core D&I competencies including the following:

- recognizing the level of evidence required to justify disseminating a program
- developing a rationale for selecting a D&I model or framework to guide one’s study design
- designing pragmatic interventions
- selecting appropriate process/outcome measures
- engaging key stakeholders to select the appropriate implementation strategies for a given context
- using study designs that assess and plan for adaptations, sustainability, and future dissemination
- conducting transparent evaluations of implementation strategies that address generalizability, costs and health equity
- balancing the need for site adaptations with internal validity needs
- use of mixed methods approaches for evaluation of D&I studies.

Courses
CLSC 6560 - Designs and Mixed Methods in Implementation Research (2 Credits)
This course provides an in-depth examination of study designs, comparative effectiveness research, and qualitative, quantitative and mixed methods approaches to dissemination and implementation research. The focus is application to health care and public health settings.
Grading Basis: Letter Grade
Typically Offered: Fall.

CLSC 6750 - Designing for Dissemination and Sustantability (2 Credits)
This course is one of three that focuses on dissemination and implementation research. This course reviews the organization and financing of interventions for health care systems and public health systems. The role of ethics, evidence and health equity are examined.
Grading Basis: Letter Grade
Typically Offered: Summer.

CLSC 6770 - Implementation Science Grant and Article Funding (2 Credits)
This course provides an in-depth examination of issues in submitting successful grant proposals in Dissemination & Implementation research. The course will build upon good general practices in grant and manuscript preparation and submission.
Grading Basis: Letter Grade
Typically Offered: Summer.

CLSC 6850 - Adv Topics: Dissemination and Implementation Sci (1 Credit)
Provides an overview of intermediate and advanced dissemination and implementation (D&I) science research methods in a small group discussion format. This interactive seminar series structure allows for interdisciplinary scientific dialogue among students at various stages.
Grading Basis: Letter Grade
Repeatable. Max Credits: 2.
Typically Offered: Fall, Spring.

CLSC 7653 - Dissemination and Implementation Research in Health (3 Credits)
Introduces dissemination and implementation (D&I) research and practice in the context of health (i.e. translational research in health).
This is a graduate level course and students should have a working understanding of study designs and statistics.
Grading Basis: Letter Grade
Typically Offered: Fall, Spring.

CLSC 7663 - Context & Adaptation in D&I Research (2 Credits)
This course covers concepts, frameworks, and methods for understanding and assessing context and guiding adaptations as relevant to dissemination and implementation (D&I) health research and practice. Prerequisite - CLSC 7653.
Grading Basis: Letter Grade
Typically Offered: Spring.

Please refer to the Graduate School Policies page (http://catalog.ucdenver.edu/cu-anschutz/schools-colleges-programs/graduate-school/#policiestext).

Contact Us
For questions about the D&I Certificate program content please contact the Program Director. (Amy.Huebschmann@cuanschutz.edu) For questions about the application please contact Galit Mankin. (galit.mankin@cuanschutz.edu)