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WHAT IS FLEX?

FLEX (flexible and enhanced learning) is a new, innovative series of three courses occurring in the first three years in the renewed UBC medical undergraduate program that offers medical undergraduate students unique opportunities to pursue a variety of scholarly activities within a defined learning space. FLEX complements the common curriculum by enabling students to develop activities that allow them to explore individual learning interests in greater depth. The FLEX courses are designed to foster innovation, creativity, critical thought, and community engagement, and prepare graduates for roles as scholars and life-long learners across the full trajectory of their medical careers. The course framework supports self-directed learning by allowing students to pursue a variety of learning interests and select activities that begin to incorporate scholarly inquiry and social accountability into their future practice.

FLEX will offer activities, experiences and opportunities for student to connect with mentors, organizations and colleagues across four UBC medical campuses; Vancouver-Fraser, Prince George, Victoria, and Kelowna.

COURSE CONTENT AND STRUCTURE

All students will begin their FLEX experience in Year 1 by taking a common component termed the Foundations of Scholarship (FoS). FoS consists of a series of lectures and small-group sessions. FoS is designed to promote scholarly inquiry by providing students with a toolbox of skills, including an understanding of the different types of scholarly activities, basic research skills, communication and facilitation skills and best practices for engaging with communities.

The remainder of the FLEX course time will offer opportunities for students to engage in individualized learning activities. FLEX activities may be selected from a repository or be self-defined. The student experience will be supported by an evolving activity database hosting a variety
of course and project options. The FLEX activity repository serves two important functions: (1) it serves as a source of submitted FLEX activities, and (2) it provides a space for researchers, educators and community organizations to connect with medical students by offering individuals and organizations a place to advertise areas of interest and/or goals of the organization. This repository will grow and evolve over time with further contributions from students, community practitioners and organizations, researchers, other institutions, and faculty members.

Within the repository, opportunities and activities are grouped into 11 categories: Aboriginal Health; Arts & Humanities; Biomedical & Foundational Sciences; Biomedical Engineering; Clinical; Global Health; Health Policy and Advocacy; Medical Education; Public Health; Social, Cultural & Environmental Health; and Other. (See Appendix A for category definitions). Students may undertake a variety of FLEX activities that can include short courses, workshops, research projects, online modules, discussion groups, interprofessional experiences, community service learning options, or other options. FLEX activities may be pursued by individual students as well as groups of students, and can involve collaboration across one or more MDUP sites or between year 1, 2 and 3 students.

THREE YEAR FLEX COURSE SCHEDULE

FLEX spans the first three years of the medical undergraduate curriculum and is divided into 3 courses; Year 1: MEDD 419, Year 2: MEDD 429, and Year 3: MEDD 439. Years 1 and 2 will utilize a combination of longitudinal half-days (Mondays, 1-5 pm) and dedicated block time, while Year 3 consists only of dedicated block time. Block time refers to consecutive weeks of dedicated time in which a student is solely engaged with FLEX activities. Each FLEX course can be broken down into individual FLEX sessions and each FLEX session is identified by a session number. (see Figure 2) Students may participate in a FLEX activity that occurs in a single FLEX session, or they may participate in a larger project that spans more than one FLEX session or more than one year.
WHAT CAN YOU GET INVOLVED?

If you have an activity, research project or other learning opportunity that you think will be of interest to medical students, FLEX is an excellent way to engage with one or more bright, capable and eager individuals. To advertise your area of interest, or a particular activity or project within the FLEX course repository, you and/or your organization are invited to fill out an Activity Proposal form. This form will provide information such as a description of the activity, time required to complete the project, and contact information. Please see Appendix B for proposal forms and additional information.

THE ACTIVITY SUPERVISOR EXPERIENCE: ROLES AND RESPONSIBILITIES

There are three domains in which you, the Activity Supervisor have a significant role: working with a student to develop the activity, providing direction and guidance during the student’s engagement with the activity (and with yourself), and providing assessment of the student’s performance during the activity. Your role effectively involves you at all stages: from activity initiation to completion. Here we focus on the latter two roles of guidance and assessment.

a. **Guidance**

   ‘Learning’ is the paramount criterion by which success is measured (assessed) in the FLEX course(s), and not the ‘success’ of the activity itself. Students provide evidence of their learning in the form of self-reflection and activity progress or completion reports. Thus, your role as mentor during the student’s engagement with the activity (and yourself) is significant. Remember that a student may approach you with considerable background in your field, or perhaps only a burning interest to learn more about it. Both situations may provide challenges as well as opportunities, for both yourself and the student. In developing their activity, the student and Activity Supervisor will have completed the Memorandum of Understanding, a document outlining the parameters of the activity (roles and responsibilities of each party, anticipated time and deliverables). The MoU is a rough guide that will inform both yourself and the student as to expectations. It is important from the perspective of assessment (see next) that there is sufficient contact between yourself and the student that you feel confident in your ability to provide the required feedback to the course.

b. **Feedback**

   As an Activity Supervisor, you will be directly responsible for evaluating your student’s deliverables, however your contribution to the overall assessment process occurs by providing feedback on how the student performed while working with you. This feedback areas addresses the domains of Scholarship, Communication & Collaboration, and Professionalism. This will be collected using an e-fillable form provided to you by your student that comprises 10 separate items to evaluate as met ‘consistently’, ‘occasionally’, ‘seldom’ or ‘unable to assess’, as well as a required narrative commentary on each domain. Please review the form attached to this document.
CONTACT

For more information about the FLEX course, please contact the course site director or directors at the appropriate site; VFMP - Dr(s) Dawn Cooper (d.cooper@ubc.ca); IMP – Dr. Lisa Cairns (karenlisacairns@gmail.com); NMP – Dr. Richard Lazenby (Richard.lazenby@unbc.ca); and SMP – Dr. Harry Miller (dr.harry.miller@interiorhealth.ca).

HOW TO SUBMIT A FLEX ACTIVITY PROPOSAL?

The purpose of the FLEX Activity Proposal form is to provide data on opportunities that future students might engage in during the MEDD 419, 429 or 439 ('FLEX') courses in the renewed UBC MDUP curriculum. These activities will reside in a database organized by activity category and activity type. Some entries on the form are self-explanatory, while others less so. This guide and associated appendices addresses the latter aspects.

Deadlines for submissions: FLEX proposals can be submitted at any point during the year. For the 2016/2017 academic year, we will be accepting proposals until August 15, 2016.

If you are interested in working with a Year 2 student for the 2016/2017 academic year (for projects that will begin Aug 22, 2016), our students will be selecting projects by May 16, 2016. Please submit your proposal prior to May 12, 2016.

Year 1 students will begin their FLEX activities March 2017 and will therefore be selecting projects in January 2017. If you are interested in working with a Year 1 student, please submit your proposal by Aug 15, 2016.

To submit an activity, please fill out the form at the following link:

FLEX Proposal Form

INSTRUCTIONS TO SUBMIT THE FORM:

Title of FLEX Activity - Please provide a title for your activity. (65 characters or fewer)

Activity Category – FLEX activities fall into one or more of 10 categories; some activities may naturally align with more than one category. For example, a Global Health project may be structured such that it also addresses Health Policy & Advocacy, or Social, Cultural and Environmental Health. Definitions of each category are given in Appendix A. Definitions of FLEX Repository Categories below. Please check all that apply to your activity.
**Type of Activity** – Select the appropriate description of this activity. If you are interested in working with a student but do not have a pre-defined activity, please state ‘subject to discussion with student’ in the ‘Other/further relevant information’ box.

**Select Course / Session(s)** – These options align with the curriculum map in Figure 2. FLEX time occurs in Year 1, Year 2 and Year 3, and utilizes a combination of half-days and dedicated block time. The half-days are scheduled for 4 hours on Monday afternoons (1:00 – 5:00); however an activity can occur outside of this time providing there is no conflict with other scheduled curricular activities (e.g., during evenings or weekends). FLEX block time consists of 28 hours per week dedicated solely to FLEX activity engagement. Your proposed activity or any activity you develop with a student may be appropriate for one particular FLEX session, may span more than one FLEX session or may cross years. Based on the table below, please select the session or sessions that are best suited to your activity.

<table>
<thead>
<tr>
<th>Year and Course number</th>
<th>FLEX Session</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Yr. 1: MEDD 419</strong></td>
<td>Long 1.2</td>
<td>March – April 2017</td>
</tr>
<tr>
<td></td>
<td>Block 1</td>
<td>April – May 2017</td>
</tr>
<tr>
<td><strong>Yr. 2: MEDD 429</strong></td>
<td>Long 2.1</td>
<td>Aug 22 - Nov 21 2016</td>
</tr>
<tr>
<td></td>
<td>Block 2</td>
<td>Nov 28 -Dec 16 2016</td>
</tr>
<tr>
<td></td>
<td>Long 2.2</td>
<td>Jan 9, 2017- March 28, 2017</td>
</tr>
<tr>
<td><strong>Yr. 3: MEDD 439</strong></td>
<td>Block 3</td>
<td>May 2018</td>
</tr>
</tbody>
</table>

**Delivery Details** – Indicate whether the activity require the student to be onsite for the activity or whether the activity could be undertaken online (Skype, videoconference, email contact, etc.).

**Primary Location** – If your project or activity can only be offered in a certain region and/or is associated with a particular campus, please indicate so on the form. If the activity is available to students from more than one campus or from all campuses, please select the appropriate boxes or indicate if open to students from all sites.

**Specific Site** – In the text box you may identify if a specific site location is intended (e.g., hospital, community organization etc.)

**Number of Students Who Can Participate** – It is important to note if an activity requires a minimum enrollment to run (many workshops and online courses have this condition). Equally, it is important to know if there is a maximum number who can engage in the activity at any one time.
**Estimated Time to Complete** – If you have a pre-defined activity (workshop series, etc.), please provide your best estimate, in hours, of the minimum time required to complete the activity; additional hours can be negotiated with the student depending on the level of engagement with the activity. Course assessment is based on the accumulation of activity hours. Each week of activity is approximately 28 hours of activity.

**Prerequisites** – If successful completion of an activity is founded on prior knowledge or level of achievement, please indicate clearly the nature of this criterion. Note that a student may be able to acquire this prerequisite as a separate FLEX activity.

**Costs** – Some activities may have costs attached (such as registration or completion / certificate fees). Please indicate an estimate of the total cost to the student(s), if any, involved in undertaking the activity.

**Describe Your Area of Interest and/or Potential Activities** – In non-technical language (as far as possible), give a brief high-level description of your area of interest and the types of activities in which a student might become involved. This information will inform a student with shared interests in approaching you to develop a specific activity around that area of interest.

**Project Summary** – Briefly provide a summary abstract or scope of the project

**Continuation** – Please indicate if this is a new activity or one that is continued from a previous offering.

**Suggested Deliverables** – A deliverable is any product the student is expected to create or undertake to complete the activity. Examples of deliverables may include but are not limited to: the production of educational materials (pamphlets, database or website), literature reviews, chart reviews, an abstract, poster, manuscript or presentation. In the case of a workshop series or short course, the deliverables may include a reflection, a written piece, a debate, etc. The course is designed to support a wide variety of activities and deliverables. Students are advised that deliverables should be discussed with the assigned activity supervisor prior to engaging in the activity. **NOTE:** Successful completion of an activity from the viewpoint of the FLEX course is based on demonstrated learning within the activity, not on achieved deliverables per se.

**Supervisor(s)** – Please provide the name and contact information of the primary individual who will be the Activity Supervisor for the student, as well as for Secondary Supervisor(s) if anticipated.
1. Is there a budget to cover potential costs associated with the activity (e.g., travel, registration)?
   
   At this time there is no specific budget attached to the FLEX course.

2. Can a student be paid while undertaking a FLEX activity?
   
   No. UBC policy does not permit a student to be remunerated for work related to a credited course. However, if a student between 1st and 2nd year is able to continue in the activity over the summer (outside of the course), they may be compensated (e.g., from a research grant).

3. How much time exists within a week of FLEX block time?
   
   Students are expected to commit to 28 hours of activity engagement with a week of FLEX block time.

4. Is ‘shadowing’ considered an appropriate FLEX activity?
   
   No. While ‘shadowing’ can be an insightful endeavor and an important part of student learning, it does not address the scholarship mandate of the FLEX course.

5. What happens after I submit my Activity Proposal?
   
   We will provide updates by email about the application process. After a student applies for an activity, each application is assessed by the FLEX committee to ensure that their choice aligns with their learning plan. Once this has been completed, the student will be informed via email of the result of their application. You will be contacted by the successful applicant(s) to coordinate next steps.
APPENDIX A. DEFINITIONS OF FLEX REPOSITORY CATEGORIES

Aboriginal Health: As noted in Waldram, Herring and Young (2006: 3), “the health of any human population is a product of a complex web of physiological, psychological, spiritual, historical, sociological, cultural, economic, and environmental factors.” Nowhere is this more evident in Canada than with regard to the health of its aboriginal populations (First Nations, Inuit and Métis), for whom life expectancy is almost 7 years lower than the general population, heart disease is 1.5x higher, T2D 3x to 5x greater, TB infection rates 8x - 10x higher, and suicide / self-inflicted injury is the leading cause of death (among First Nations youth and adults < age 44) (all data from Health Canada [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)). The latitude for FLEX activities in this category is extensive, including health disparities; social and economic determinants; health research with FN communities; traditional knowledge, diet and healing practices; urban aboriginal populations; colonization and de-colonization; racism; and environmental degradation / climate change, among others. Visit the UBC Faculty of Medicine Centre for Excellence in Indigenous Health ([http://health.aboriginal.ubc.ca](http://health.aboriginal.ubc.ca)) as well as the National Collaborating Centre for Aboriginal Health website ([http://www.nccah-ccnsa.ca/en/](http://www.nccah-ccnsa.ca/en/)).

Waldram, JB, Herring, A and Young, TK 2006. *Aboriginal Health in Canada: Historical, Cultural and Epidemiological Perspectives, 2nd ed.* University of Toronto Press, Toronto.

Arts & Humanities: As attributed to Hippocrates, “Wherever the art of medicine is loved, there is also a love of humanity.” Many medical schools in North America have recognized the value of an interdisciplinary curricula incorporating medical humanities through which students explore the intersection of health and healing with programs in the Arts (e.g., literature, visual arts), Humanities (e.g., philosophy, religious studies) and Social Sciences (e.g., anthropology, psychology, cultural studies). As noted by the Medical Humanities program at NYU “Attention to literature and the arts helps to develop and nurture skills of observation, analysis, empathy, and self-reflection -- skills that are essential for humane medical care. The social sciences help us to understand how bioscience and medicine take place within cultural and social contexts and how culture interacts with the individual experience of illness and the way medicine is practiced” ([http://medhum.med.nyu.edu/](http://medhum.med.nyu.edu/)). It also encompasses the emerging field of Narrative Medicine: “The care of the sick unfolds in stories. The effective practice of healthcare requires the ability to recognize, absorb, interpret, and act on the stories and plights of others. Medicine practiced with narrative competence is a model for humane and effective medical practice. It addresses the need of patients and caregivers to voice their experience, to be heard and to be valued, and it acknowledges the power of narrative to change the way care is given and received.” ([http://ce.columbia.edu/narrative-medicine](http://ce.columbia.edu/narrative-medicine)). FLEX activities in this category might engage the student in the production, critical analysis & reflection or synthesis of creative work(s) in the context of clinical practice and/or population health. Visit the Medical / Health Humanities in Canada site at [http://www.medhealthhumanities.ca/](http://www.medhealthhumanities.ca/) and the Arts Health Network ([http://artshealthnetwork.ca/](http://artshealthnetwork.ca/)).
Biomedical and Foundational Sciences
The category represents a broad area of science that looks for ways to understand healthy structure and function of the human body, and prevent and treat diseases that cause illness and death in people and in animals. This category includes many areas of both the life and physical sciences.

Biomedical Engineering: The field of Biomedical Engineering (BME) spans from medical research to innovation of technology in the healthcare industry. It offers a technical perspective on medicine and facilitates the advancement of medicine through novel technology. Activities in this category could involve the conceptual design, development, and implementation of innovative medical devices. Examples include rehabilitation devices, surgical equipment, and systems for addressing healthcare challenges in low resource settings. BME could also include applying engineering knowledge to research in areas such as biomechanics, imaging, and robotics. FLEX activities in BME could involve conducting the engineering design process including developing needs assessments, defining requirements, concept generation, prototyping, and testing. The BME field is entrepreneurial, with the potential for devices to develop into businesses. Hands-on skills in mechanical, electrical and software engineering can be developed, and applied to medical innovation.

Clinical: Activities and research in this category involve the investigation of the etiology, prevention, diagnosis or treatment of human disease using human subjects, human populations or materials of human origin. Students may undertake chart reviews, research projects, educational projects or short courses.

Global Health: Global Health embraces the realms of ‘notion’, ‘objective’ and ‘research / practice’, and as such the Consortium of Universities for Global Health (Kaplan et al., 2009) define global health as “an area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide. Global health emphasizes transnational health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences and promotes interdisciplinary collaboration; and is a synthesis of population-based prevention with individual-level clinical care.”

This intentionally comprehensive definition translates into a broad scope of potential FLEX activities; for example see the workshops offered through the UBC GHI (http://globalhealth.med.ubc.ca/service/student-groups/global-health-initiative/global-health-initiative-workshops/), the Global Health e-Learning Center (http://www.globalhealthlearning.org/); see also the UBC Faculty of Medicine’s Global Health Initiative http://globalhealth.med.ubc.ca/.

Health Policy & Advocacy: Activities in this category explore ways that health care systems, governments, doctors and patients can interact to deliver health care. Students can study how regulatory policy shapes health care delivery costs and benefits of new technologies, or the efficiency and effectiveness of health care systems. Many other policy decisions can fit here as well, such as taxation on junk food, looking at the healthy built environment, legalizing marijuana, harm reduction, and more. For resources, visit the Canadian Health Policy Institute, an independent body “conducting, publishing and communicating evidence-based socio-economic research on health system performance and health policy issues that are important to Canadians” (http://www.canadianhealthpolicy.com/). For advocacy resources, see for example the Canadian Health Coalition (http://healthcoalition.ca/).

Medical Education: The field of medical education explores the formal and informal teaching / training of health care professionals. It examines different pedagogies (e.g., problem-based versus case-based), scrutinizes best practices, analyses curriculum (e.g., explicit versus hidden), and studies relationships within and among institutions, disciplines, organizations, governments and communities. It has been noted, in reference to how physicians in particular are trained, that “Medical education seems to be in a state of perpetual unrest” (Cooke et al., 2006: 3339), and that “the development of medical education [is] a history of reform without change” (Lempp and Seale, 2004: 770). This FLEX category allows students to critically examine how they themselves are being taught, by what ways and means, with the objective of producing the best possible clinician / researcher. Activities might focus on learner styles and group conformity, e-learning modalities, interprofessional care, assessment and evaluation, and many others. For information visit the Canadian Association for Medical Education (http://www.came-acem.ca/)


Public Health: Definitions of public health invariably reference a focus on populations rather than individuals, on prevention and health promotion rather than curative medicine, and policy development and regulation focused on safety and quality of life. The Public Health Agency of Canada definition reads: “Public health can be described as the science and art of promoting health, preventing disease, prolonging life and improving quality of life through the organized efforts of society. As such, public health combines sciences, skills, and beliefs directed to the maintenance and improvement of the health of all people through collective action” (http://www.phac-aspc.gc.ca/publicat/sars-sras/naylor/3-eng.php#s3a2). FLEX activities in this category might overlap with other categories (such as Social, Cultural and Environmental Health, Medical Education, or Health Policy and Advocacy). Such activities could embrace realms such as epidemiology & population health, health literacy & health promotion, chronic & infectious disease, surveillance, food safety, screening & intervention, occupational health, and risk communication among others. A useful guide to this category is the AFMC Primer on Population Health, found at http://phprimer.afmc.ca/.
Social, Cultural & Environmental Health: The Canadian reality is one of a pluralistic and multicultural society, living in an expansive and geographically diverse country. We rank 2\textsuperscript{nd} in land area at almost 10 million km\textsuperscript{2}, 37\textsuperscript{th} in population size at just over 35 million people and 9\textsuperscript{th} in terms of per capita GDP (with a purchasing power parity of almost $45,000). Yet 81\% of Canadians live in an urban context, 75\% live within 160 km of the Canada – US border, and almost 10\% are deemed ‘low-income’ Canadians (all data from Government of Canada websites, e.g., http://www4.hrsdc.gc.ca/.3ndic.1t.4r@-eng.jsp?iid=34). Not surprisingly, health promotion and provision is both complex and costly. According to the World Health Organization environmental health addresses “all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health” (http://www.who.int/topics/environmental_health/en/). The range of possible FLEX activities in this category is broad, including immigrant / refugee health, population diversity & health beliefs, gender & age, social & economic determinants, urban, rural & remote health, cultural competence, health impacts of climate change & pollution, workplace safety, spirituality, addiction, abuse in society, sexual health, complementary and alternative medicine, and more. It encompasses the various determinants of health.

Other: There are many opportunities for students to engage in FLEX activities that could fall outside the eight specified categories / themes, though they could be touched upon in a peripheral sense. Such activities could involve Community Service Learning (http://www.chius.ubc.ca/community-service-learning-programs/), the Health Mentor’s Program (http://www.dhcc.chd.ubc.ca/healthmentors), eHealth projects (http://www.health.gov.bc.ca/ehealth/telehealth_project.html), as well as numerous online workshops and short courses (https://www.class-central.com/subject/health).