

UG-I.C.a.R.E. (Undergraduate Interdisciplinary Collaborative Research Enterprise)

(Submitted by the University of Saskatchewan One health Initiative and the Undergraduate Research Initiative)

The objective of the Undergraduate Interdisciplinary Collaborative Research Enterprise (UG-I.C.a.R.E.) is to provide 4th year honours students in all programs (BA, BSc, BAsC, BSA) at the University of Saskatchewan with the opportunity to work collaboratively to solve complex health-related problems.

Most honours programs at the University require students to participate in a 3 or 6 credit course that involves a research project or essay/seminar in the student's chosen field of specialization. Usually, the student approaches a member of the faculty in their department and then conducts a short-term research project under their supervision. The supervisor and the Department ensure academic and/or scientific rigor. For most science departments the students submit a report on their project and may present a seminar to the Department. For most Humanities and Arts programs the student completes a well-researched essay, and often presents a seminar as well. The courses are designated by various numbers (see Figure).

UG-I.C.a.R.E. proposes to enlist the 4th year research/essay courses to encourage student to collaboratively address complex health-related problems relevant to Saskatchewan. While the problems may be related to health of Saskatchewan residents, most such community-problems are complex and need expertise in a variety of disciplines (including many that are not traditionally related directly to health) for analysis and creative solutions. UD-ICaRE, therefore, hopes to include students from all academic areas.

Recruitment: In February or March 2016 students who are preparing to put together their 4th year honours schedule for the 2017-18 academic year will be invited to a Saturday morning session where they will form interdisciplinary teams and choose a complex problem that is amenable to an interdisciplinary analysis. Depending on their areas of specializations, each student will select a piece of the larger problem to analyze. For instance, a complex problem may involve students from the basic health sciences (BSc or BAsC), Biology (BSc), Economics, Sociology (BA), Agriculture and Bioresources (BSA) etc. We would then find mentor for the students in their chosen fields. Through September 2017 and March 2018 the mentors would then supervisor the student's project as required by their department for fulfilment of requirements for their research/thesis course.

In March 2018 the students and their mentors would reconvene to share their results on how they have collectively analyzed the problem and, based on their

collective reports, make recommendations for solving the problem. The groups will be encouraged to publish their analyses.

Publicizing UG-ICaRE: We have introduced our undergraduate initiatives to 3rd year classes in several programs and talked to various departments at faculty meetings or through departmental seminar series. The students appear to find the initiatives interesting (several have written to me asking for more information or to be included) and all departments I have addressed are on board (UG-ICaRE does not interfere with the way they administer their research courses). I have also approached the various undergraduate student associations for assistance in publicizing the initiative with their members; all appear keen to do so. In January, with assistance from Kara Loy the coordinator of the Undergraduate Research Initiative, we will begin an advertising campaign with posters and advertisements in the Sheaf.

Collaborative Undergraduate Research Projects

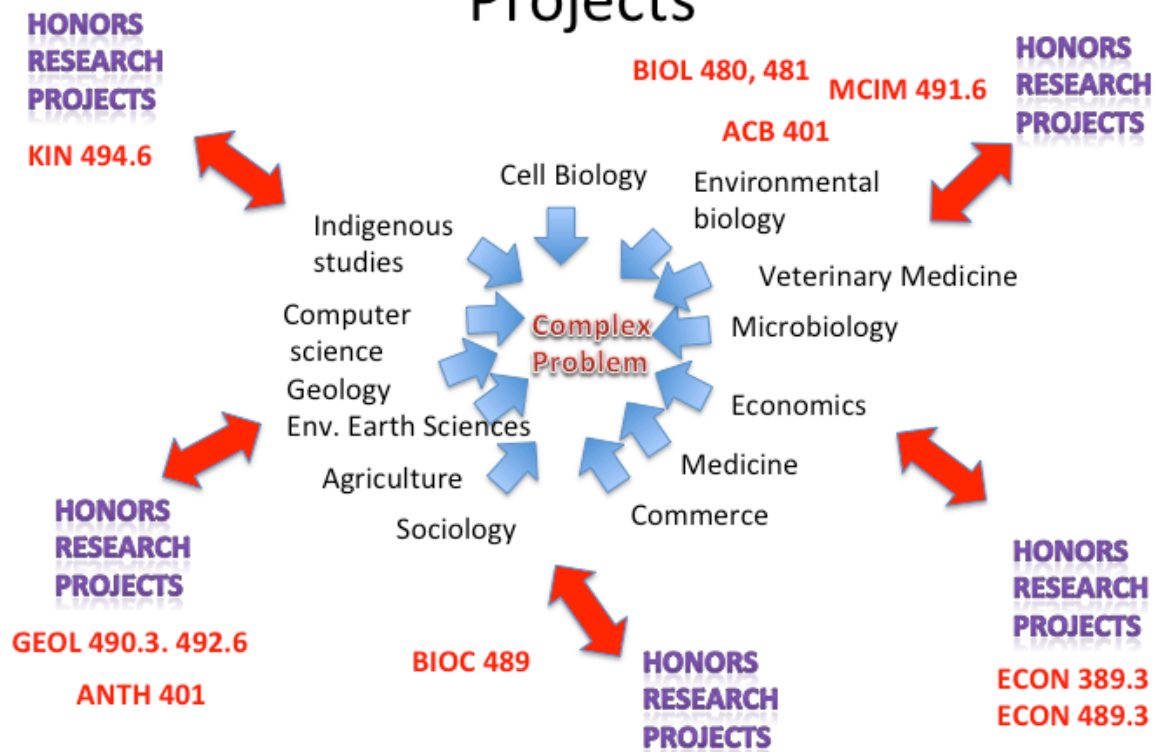


Figure: Input from a variety of disciplines is required to understand complex (wicked) One Health problems and to find a solution for them. Most programs at

the University of Saskatchewan that lead to Bachelor's honours degrees require students to complete research projects or essays (some research courses in red). The objective of UG-I.C.a.R.E. is to encourage students taking these courses to collaboratively work towards analyzing a complex One Health problem and then pool the results of their research to find implementable solutions.

Department	Honours Program	Research courses
Anthropology/Archeology	BA, BSc	Arch 361, ANTH401
Art and Art History	BA, BFA	ART495, 426, 436, 422, 421,431
Economics	BA	ECON398, 404, 489
English	BA	ENG497
Geography	BA	PNAN490, 390, ENVS401
History	BA	CMRS402, HIST494
Indigenous Studies	BA	INDG350
Linguistics and Religious Stds	BA	LING478
Music	BA	MUS180
Philosophy	BA	PHIL251
Political studies	BA	IS401, 402
Psychology	BA, BA&Sc	PSY472, 473, HLST410
Interdisciplinary	BA	WGST400, INCC310
Anat. Cell. Biol.	BSc	ACB401
Biochemistry	BSc	BIOC489
Biology	BSc	BIOL480,481
Chemistry	BSc	
Computer Science	BSc	CMPT405
Geology		GEOL490,492
Kinesiology		KIN494
Mathematics		
Microbiology & Immunol.	BSc	MCIM491
Physics		
Physiology	BSc	