CCAC report to UGSC

4th November 2021

Core Learning Objective LO Review

The CCAC indeed to begin reviews Core classes next semester. Thai will require us to assess student learning via review of student artifacts, against core learning objectives. We thus need a clear understanding of core learning objectives. IIT has overall core curriculum LOs, but the plan in place involved assessing specific sections of the IIT core, against core component LOs. Some areas have approved LOs, (e.g., ITP) but other do not. However, UGSC has in the past approved some component course designation criteria. We used these as initial starting points, as described in this document of core component designation criteria approved by UGSC (per minutes of the meeting of Tuesday, February 26, 2019).

It is understood by accreditation agencies generally that LOs should be expressed as student learning objectives (or similar terms such as *student outcomes*, ABET). In the cases below, the committee reviewed these LOs and/or designation criteria and proposes the following revised LOs, and is requesting formal UGSC approval to facilitate necessary course review next semester.

Intended Assessment plan moving forward

The CCAC is reviewing the 2019 Core assessment plan, which provides strong overall framework for core assessment. This involved setting up subcommittees to review student learning in a sample of classes within specific core components. This process involved review of student artifacts that satisfy core LOs in each area supplied by the instructor. This will be done in as minimally disruptive fashion as possible and instructors and appropriate administrator will be notified of the in advance, before the semester starts. Part of the plan review is to establish these minimally disruptive protocols.

The areas being reviewed that are tentatively targeted for S22 are:

- CS
- N

This may change depending on approval status of the LOs submitted. But some assessment will go ahead regardless, with whatever LOs we have, since this is required to develop the HLC required interim report.

The Los

We provide recommended revised LOs for

- ITP
- S
- N
- MATH
- CS

The CCAC is working to develop and or review LOs for

- H
- IPRO
- COM

UGSC approved: 24 Feb 2015

1. *Ethics: Understand the ethical framework applicable to the discipline. Understand the importance of ethics to the profession. Be able to recognize ethical issues and propose ethical responses to ethical problems.*

2. *Communication: Understand the standards of professional communication used within the profession. Be able communicate (understand, and respond) in a discipline specific fashion*

3. *Professionalism: Understand the norms of professional behavior within the discipline. Be able to discuss and understand how professional conduct reflects on and supports the discipline.*

moved to active student LO form:

1. ***Ethics:** Students **will demonstrate an understanding** of the ethical framework applicable to the discipline. Students will be able to understand the importance of ethics to the profession. Students will be able to recognize ethical issues and propose ethical responses to ethical problems.*

2. ***Communication:** Students will be able to understand the standards of professional communication used within the profession. Students will be able to communicate (understand, and respond) in a discipline specific fashion*

3. ***Professionalism:** Students will be able to understand the norms of professional behavior within the discipline. Students will be able to discuss and understand how professional conduct reflects on and supports the discipline.*

Math – Math.

There were no course designation criteria. These are new LOs, provided by Fred Weening, AM, and reviewd and supported by CCAC

Learning Objectives: Students will have acquired at least two of the following objectives.

1. Students will demonstrate proficiency at basic symbolic manipulation and calculation
2. Students will be able to produce and effectively communicate mathematical arguments.
3. Students will be able to design and use computational algorithms.
4. Students will be able to develop and apply techniques of mathematical modelling.

S – Social sciences

Perhaps approved, not sure when or by whom… need to document

1. *Acquaints students with the scientific study of individual and group behavior*

2. *Introduces students to fundamental concepts, theory or methods from one or more of the social/behavioral sciences (e.g., anthropology, economics, sociology, political science or psychology).*

3. *Enables students to think critically about human behavior and society to offer meaningful explanations of social and individual behavior.*

4. *Frames social science problems broadly in a way that is accessible to the general population (i.e., not exclusively for majors within a specific discipline)*

moved to active student LO form::

1. *Students will demonstrate an understanding of the scientific study of individual and group behavior*

2. *Students will demonstrate an understanding of fundamental concepts, theory or methods from one or more of the social/behavioral sciences (e.g., anthropology, economics, sociology, political science or psychology).*

3. *Students will be able to think critically about human behavior and society to offer meaningful explanations of social and individual behavior.*

4. *Students will be able to frame social science problems broadly in a way that is accessible to the general population (i.e., not exclusively for majors within a specific discipline)*

N - natural science

1. *Acquaints students with empirical and/or theoretical understanding of the natural world that is based upon observation and the scientific method*

2. *Enables students to think critically about the natural world, to offer meaningful explanations of natural phenomena, and develop and test hypotheses about natural phenomena*

3. *Communicates natural science to the general population (i.e., not those educated in natural science) in a way that is accessible to them.*

moved to active student LO form:

1. *Students will demonstrate an empirical and/or theoretical understanding of the natural world that is based upon observation and the scientific method*

2. *Students will be able to think critically about the natural world, to offer meaningful explanations of natural phenomena, and develop and test hypotheses about natural phenomena*

3. *Students will be able to communicate concepts of and contemporary issues in the natural sciences to the general population (i.e., not those educated in the natural sciences) in a way that is accessible to them.*

CS – Computer Science

1. *Students will demonstrate using computation to represent problems (i.e. abstraction) and implement solutions using an appropriate programming environment.*
2. *Students will use computation to demonstrate algorithmic thinking.*
3. *Students will demonstrate an ability to utilize computational applications for modeling, simulation or visualization.*
4. *Students will explain the limitations, assumptions, and trade-offs inherent in computing models.*
5. *Students will demonstrate the ability to apply a process to develop a computational artifact (i.e. specification/requirements, design, programming/documentation, debugging/testing).*

No changes requested