

**KNIGHT FOUNDATION SCHOOL OF COMPUTING AND INFORMATION
SCIENCES
ASSESSMENT PLAN
of the
Bachelor of Science in Computer Science Program**

I. INTRODUCTION

The document, Assessment Mechanisms and Procedures, of the Knight Foundation School of Computing and Information Sciences (KFSCIS), describes the means by which the School conducts the biennial assessment of its BS in Computer Science program. The instruments employed for assessment, and the KFSCIS administrative structure for performing the assessment are described in that document. These means include:

- Survey Instruments
 - 1. Course Outcomes Survey by Students
 - 2. Course Outcomes Survey by Instructors
 - 3. Survey of Graduating Students
 - 4. Survey of Alumni
 - 5. Survey of IAB members and Employers
- Recommendations from constituents
 - 1. Industry Advisory Board (IAB)
 - 2. Women in Engineering and Computer Science (WIECS)
 - 3. ACM Student Chapter
 - 4. Students in Technology, Academia, Research, and Service Group (STARS)
 - 5. Upsilon Pi Epsilon (UPE)
 - 6. Programming Team
 - 7. Google Developers Students Club
- Direct Measures
 - 1. Senior Project Assessment
 - 2. Course-Embedded Assessment

The administrative structure for conducting the assessment comprises

- The Undergraduate Program Director (UPD)
- The Assessments Coordinator (AC)
- The Subject Area Coordinators (SACs)

The assessment procedures are performed by the KFSCIS Subject Area Coordinators and the KFSCIS Assessments Coordinator. Their findings are reported to the KFSCIS Undergraduate Committee for evaluation, resulting in a set of recommendations to the KFSCIS faculty.

This document, the KFSCIS Assessment Plan, defines the implementation of the entire assessment cycle. It specifies the roles of all participants in the process, and sets out a timetable for execution of those roles.

II. PARTICIPANTS

1) The Undergraduate Program Director (UPD)

The Undergraduate Program Director is appointed by the Director of KFSCIS. The UPD bears overall responsibility for the administration of all KFSCIS undergraduate programs.

The role of the UPD relevant to the assessment process is

- To designate the chair of the KFSCIS Undergraduate Committee (below)
- To ensure that the assessment timetable is followed and that the procedures are otherwise executed as set forth in this document and in the Assessments Mechanisms and Procedures Document
- To document and implement program adjustments arising from the biennial assessment process that are approved by the KFSCIS faculty and, if necessary College and University Curriculum Committees.

2) The Subject Area Coordinators (SACs)

The Subject Area Coordinators may be appointed by the UPD or elected by the KFSCIS faculty. In this evaluation cycle, a new Subject Area, Applications, is introduced. Each SAC bears responsibility for a group of courses in the BS in Computer Science curriculum:

Applications Subject Area courses:

- CAP 4052, CAP 4104, CAP 4612, CAP 4630, CAP 4641, CAP 4710, CAP 4770, CAP 4830.

Computer Organization Subject Area courses:

- CDA 3102, CDA-3103, CDA-4101, CNT-4713, COP-4610.

Computer Systems Subject Area courses:

- CAP 4453, CDA 4625, CEN-4083, CIS 4731, COP-4604, COP-4710, COT-4431.

Foundations Subject Area courses:

- CAP 4506, COP 4534. COP 4555, COT 3100, COT 3510, COT 3541, COT 4521.
Math Courses: (MAC 2311, MAC 2312), MAD-2104, MAD 3305, MAD 3401, MAD-3512, MAD 4203, MHF 4302.

Professional Development Subject Area courses:

- CGS-1920, CGS-3095, ENC-3249, (STA 3033, PHY 2048, PHY 2049).

Programming Subject Area courses:

- COP-2210, COP-3337, COP-3530, COP-4338, COP-4226, COP-4520.

Senior/Capstone Project Subject Area Courses:

- CIS 3950, CIS 4911, CIS 4951, IDS 4918.

Software Engineering Subject Area courses:

- CEN-4010, CEN-4021, CEN-4072.

The above lists will be modified as and when needed to reflect the changing requirements of the Program or addition of new area-specific courses. The UPD and SACs will be responsible to suggest these area-specific modifications.

The role of a Subject Area Coordinator is:

- To maintain a common syllabus for each KFSCIS course in their area.
- To maintain the instruments and rubrics for course-embedded assessment in their area
- To liaise with the academic unit teaching a non-KFSCIS course that is a required or elective course in the BS in CS program.
- To interpret the data from the Student and Instructor Course Outcomes surveys for each course in their area.
- To prepare a biennial report presenting the findings from the course surveys, and to make recommendations based on these findings.

3) The Assessments Coordinator (AC)

The Assessments Coordinator is appointed by the KFSCIS Director. The role of the AC is:

- To interpret the data from the Survey of Graduating Students, Senior Project assessment, and Alumni survey.
- To prepare the KFSCIS biennial assessment report every odd year (2021-22). The report presents the data from these assessment mechanisms and resulting findings and recommendations, and summarizes the recommendations from SAC reports.
- To monitor the BS in CS program for compliance with the ABET accreditation criteria.
- To prepare the ABET accreditation self-study report, and program documentation as may be required by ABET.

The Assessments Coordinator should not simultaneously be a Subject Area Coordinator, except for the Calculus and Physics area (liaison).

4) The Undergraduate Committee (UGC)

The Undergraduate Committee may be appointed by the KFSCIS Director or elected by the KFSCIS faculty. The UGC Chair convenes and conducts all UGC meetings as necessary. The Undergraduate Program Director and Assessments Coordinator are ex-officio members of the Undergraduate Committee.

The UGC has the responsibility of considering proposed changes to the existing KFSCIS undergraduate courses and programs, and of making recommendations, based on these considerations, to the full KFSCIS faculty.

The role of the UGC in the assessment process specifically, is to consider the AC's biennial assessment report. Each AC or SAC recommendation contained in the biennial report is evaluated by the UGC. Where helpful, the UGC may require further input or clarification from the author (AC or SAC) of a recommendation. At the conclusion of their deliberations, the UGC chair prepares a summary of recommendations for presentation to the KFSCIS faculty. In the summary:

- The UGC may endorse an AC or SAC recommendation for adoption by the KFSCIS faculty.
- The UGC may endorse an AC or SAC recommendation and propose to the KFSCIS faculty a means of enacting the recommendation.
- The UGC may decline to act on a recommendation, setting forth reasons for its decision.
- The UGC may author its own recommendations to the KFSCIS faculty.

5) The KFSCIS Faculty

The KFSCIS faculty, collectively, has sole responsibility for promulgating and modifying its academic programs. The KFSCIS faculty approves or rejects any recommendations for adjustments to the BS in Computer Science program. Adoption of KFSCIS approved program adjustments may be subject to final approval of College and University Curriculum Committees.

III. SCHEDULE

1) Surveys

The schedule for administering Course Outcomes, Graduating Students and Alumni surveys is set out in the KFSCIS Assessment and Mechanisms document. All surveys are carried out on-line. The KFSCIS Director for IT and Business Relations has the responsibility of ensuring that the data from any survey is available within one month of conclusion of the survey.

2) Direct Measures Assessment

Senior Projects are presented at the end of every semester. The resulting assessment data are collected by the Senior Project coordinator and are available by the start of the following semester. Data from the course-embedded assessments are prepared by the SAC's and are made available by the start of the next semester.

3) Subject Area Coordinator Biennial Reports

The SAC biennial reports cover the Summer, Fall, and Spring semesters of two previous years. These reports are made available to the Assessments Coordinator by the end of September of every odd year.

4) Recommendations from Constituents

Recommendations from IAB, WIECS, ACM Chapter, or other constituent group are provided to the assessments Coordinator no later than the end of September of every odd year.

5) Assessment Coordinator Biennial Report

The AC biennial report incorporates data and recommendations from all of the sources listed above. The report covers the period of two years (six semesters) and is made available to the Undergraduate Committee by the end of the Fall term of every odd year.

6) Undergraduate Committee Summary of Recommendations

UGC meetings to consider the biennial assessment report are conducted during the first two months of the Spring term of every even year. UGC concludes all deliberations, and the UGC summary of recommendations is made available to the KFSCIS faculty by the end of February of every even year.

The UGC chair should prioritize recommendations for adjustments to the BS in CS program that require further approval by the College Curriculum Committee. The KFSCIS Director and/or UPD should expedite KFSCIS faculty consideration of such recommendations, bearing in mind the deadlines of the College Curriculum Committee, and with a view to implementation at the start of the next academic year.

7) KFSCIS Faculty Assessment Meeting

The KFSCIS Director convenes a meeting of the KFSCIS faculty to consider the UGC recommendations prior to the end of the Spring semester of every even year, if practical, but no sooner than one week following receipt of the UGC summary of recommendations. Should matters be left over from this meeting, such matters should be addressed during the first meeting of the full KFSCIS faculty in the following Fall semester.

IV. ENACTMENT

- UGC recommendations not requiring faculty approval must be considered by the responsible entity, SAC or UPD, immediately and reported to the next meeting of the full KFSCIS faculty. The Director or the Associate Director of the School may veto such recommendations if they are deemed to be impractical to implement.
- UGC recommendations approved by the KFSCIS faculty, and not requiring further approval by the College, must be enacted by the UPD as soon as practicable, and by the start of the following Summer semester if at all possible.
- Recommendations for BS in CS program adjustments approved by the KFSCIS faculty, and subsequently approved by the College and/or University Committees, must be enacted at the earliest possible date following approval by the highest Committee.

The Undergraduate Program Director has overall responsibility for enactment of all program adjustments resulting from the assessment process. The UPD is charged with documentation and publication of program adjustments.

Revised: February 19, 2015 [Subject Areas and List of Constituents are modified]

Note that the School's name has been updated from School of Computing and Information Sciences (SCIS) to Knight Foundation School of Computing and Information Sciences (KFSCIS) to reflect the changes made in February 2021.