UNIT REPORT

Computer Science, Department of
Assessment Plan Summary

Computer Science, Department of

Curriculum Planning And Evaluation

Goal Description:

The department will maintain updated and quality curriculum at the undergraduate and graduate levels.

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Curriculum Review

Performance Objective Description:

The department will conduct continuous curriculum review for each degree program.

RELATED ITEM LEVEL 2

Curriculum Committee Minutes

KPI Description:

Minutes of the meetings of the undergraduate and graduate curriculum committees.

Results Description:

The Graduate and Undergraduate curriculum committees have achieved the following:

- The baccalaureate Degree in Digital and Cyber Forensic Engineering Technology was approved at the University level and ratified by the THECB. The program begins operation in Fall 2017.
- The PhD in Digital and Cyber Forensic Science has been approved at the University and State University system levels. It is now under review at the Texas Higher Education Coordinating Board.
- The Graduate curriculum committee has established new admission requirements. A GRE score of 300 is required as a combined 1.5 time the Quantitative score plus .5 of the Verbal Reasoning score.

RELATED ITEM LEVEL 3

B.S. in Digital Forensics Engineering Technology

Action Description:

The department was successful in obtaining approval to begin a baccalaureate degree in Digital Forensics Engineering Technology. The program is scheduled to begin fall 2017. The department must provide the necessary information for the catalog, Degreeworks, and ApplyTexas.

RELATED ITEM LEVEL 3

PhD in Digital and Cyber Forensic Science

Action Description:

The department has been successful in moving the proposed PhD program in Digital and Cyber Forensic Science through the University Curriculum Committee, the Academic Affairs Council, and the Provost and President's offices. The proposal will move to the Texas State University offices for further review.

RELATED ITEM LEVEL 2

Curriculum Committee Reviews

KPI Description:

The curriculum committees will be asked to review the curricula for both the undergraduate and graduate programs. The committees will issue annual reports to be distributed at department meetings.

Results Description:

The Graduate Curriculum Committee performed an extensive review of graduate certificate programs, aligning knowledge areas. The results of the review included making changes to the courses and sequencing for the Cyber Security, Data Assurance, and Digital Investigation certificate programs.

The Graduate curriculum Committee also approved a change in admission standards to accommodate the significant portion of the applications the department receives from international students. The new formula for GRE requirements is:

Verbal*.050 + Quantitative *1.50 >=300.

It was noted that, in line with University policy, undergraduate GPA, and relevant professional experience may mitigate GRE performance less that the declared standard.

Copies of the minutes are provided as supporting documentation.

The Undergraduate Curriculum Committee performed a review of the undergraduate curriculum. The committee noted that all degree program requirements can be met with 119 credit hours. This is a result of Core Curriculum changes allowing MATH 1420 to meet both Component Area III and 1 hour of Component Area X.

As a result the committee submitted a 1 hour professional seminar course for approval through the university curriculum system. It was the view of the committee that a professional seminar course could connect to alumni, business leaders and potential employers.

The UCC reviewed the potential for assessment of the new Computer Software Engineering Technology program to follow the same model as for the computing Science program. The committee agreed that using the same model would a) utilize a tried and tested system, b) allow for more direct comparison between the two programs, and c) simplify administration.

Copies of the minutes are provided as supporting documentation

Attached Files

2016-02-03-UCC

2015-11-05-UCC

2016.02.03.GCC.Meeting.Minutes

2015.09.09.GCC.Meeting.Minutes

Faculty Teaching

Goal Description:

Faculty will demonstrate quality teaching.

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Faculty Evaluation

Performance Objective Description:

Faculty will demonstrate quality teaching.

RELATED ITEM LEVEL 2

Teaching Materials

KPI Description:

Faculty documents and provides evidence of research, teaching and service activites together with formal end of cycle evaluations of teaching, service and research. This evidence and formal evaluation documents are reviewed by the DPTAC and department Chair. FES forms 1 and 8 are signed by both chair and faculty member and maintained as an historical record from the initial point of employment.

Satisfactory performance requires that the department complete the DPTAC and the department chair complete the faculty evaluation process in accordance with university and departmental policy and forward the required documentation the the Dean of the College of Sciences by the date specified by the Office of Academic Affairs.

The department uses four metrics to establish the quality of teaching, IDEA evaluation scores, classroom observation by the department chair each semester, self-reflection of teaching by individual faculty members and documentation of activities that improve the classroom experience for students. Successful performance in the assessment of teaching will be evidenced by overall departmental IDEA scores being above the Institutional and Discipline averages.

Results Description:

IDEA evaluations indicate that in face-to-face classes the department significantly outperforms both the IDEA database and the University in Progress on Relevant objectives, the Excellence of the Teacher, and the Excelence of the Course. In online courses the department matches the the IDEA database and University scores on Progress on Relevant objectives, and the Excellence of the Teacher. The department outperforms the IDEA database and the University in the Excellence of the Course.

The department conducts observation of class sessions by all faculty members each Semester. In the fall semester the observations are performed by faculty members. THe results are used for for developmental purposes. In the Spring semester the observations are performed by the department chair and are used for FES purposes.

The results indicate that the faculty are meeting the performance obligations as identified in Academic Policy 820317 "The Faculty Evaluation System". All faculty members obtained a Chair evaluation score in excess of 4.0. the average score was 4.53.

RELATED ITEM LEVEL 3

Faculty Teaching Performance Assessment

Action Description:

The department is reviewing the rubric for evaluation of faculty teaching performance to ensure that an objective evaluation, consistent with university policy is developed.

Strategic Planning

Goal Description:

The department chair and faculty will engage in strategic planning.

RELATED ITEMS/ELEMENTS

RELATED ITEM LEVEL 1

Strategic Planning

Performance Objective Description:

The department will maintain a strategic planning process identifying departmental strengths, weaknesses, opportunities and threats.

RELATED ITEM LEVEL 2

Annual Strategic Plan

KPI Description:

Document generated by the department chair and presented to the department during the August department meeting.

Results Description:

A strategic planning document was developed by the department chair, approved by the department and submitted to the Dean of the College of Sciences.

Attached Files

Strategic Planning 2015-16 - Computer Science

RELATED ITEM LEVEL 2

Department Meeting Minutes

KPI Description:

Adequate distribution of faculty resources.

Results Description:

Faculty resources were appropriately utilized and supported. Faculty were involved in the following processes:

1. Budget allocation
2. Travel decisions
3. Strategic and Budget Planning
4. Curriculum Planning
5. Advising
6. Instruction
7. College, Departmental and University Service
8. Research and professional engagement
9. Student engagement.

As a result of faculty efforts the department achieved the following

- One student led, faculty supported academic conference
- One Robotics competition
- 47 peer-reviewed publications
- 28 Conference presentations
- 3 Book chapters
- $52,00 in grant funding
- 1 patent approved
- $35,00 in contracted services
- Successful passage of a proposal for a PhD in Digital and Cyber Forensic Science; currently with the THECB

Update to Previous Cycle's Plan for Continuous Improvement

Previous Cycle's Plan For Continuous Improvement (Do Not Modify):

Based on the previous Continous Improvement plan the Department of Computer Science was successful in bringing the timeline for strategic planning forward and in preparing for successful reviews for all degree programs. The department did not construct a development plan to support new faculty in developing teaching skills.

The Department of Computer Science needs to develop a continuous planning and review process that encompasses:

1. Curriculum
2. Resources
3. Teaching Quality

The department is currently meeting the it's target of exceeding the IDEA and University IDEA scores. There is however, a perfornace difference between online and face-to-face classes. The Undergraduate and Graduate Curriculum committees will identify strategies to close this gap.

Update of Progress to the Previous Cycle's PCI:
In order to codify best practices in all areas. The department will implement the following:

1. Strategic planning: Introduce a 'bottom up' approach to resource management, with broader faculty input into the scheduling and resource allocation processes.

2. Strategic Planning: develop a leadership team to include the department chair, an assistant chair, the graduate advisor, and the undergraduate curriculum committee chair.

3. Faculty Evaluation: Identify potential causes of the differences between online and face-to-face student evaluation results together with potential remediation options.

Plan for Continuous Improvement

Closing Summary:

Assessment

With the recent start to the B.S. in Computer Software Engineering Technology, the department needs to align the existing student learning objectives and program outcomes in the Computing Science program to accommodate the new program.

Curriculum
The department must work to move the proposed PhD in Digital and Cyber Forensic Science through the Texas State University System and Texas Higher Education Coordinating Board review process.
The department needs to ensure that all teaching materials associated with the B.S. in Digital Forensics Engineering Technology are ready for the start of the program in fall 2017.

Faculty Evaluation
The department needs to develop a (the department did not complete this statement).

RELATED ITEMS