Curriculum Details

Proposed By

Proposed by: vanessa

Course Record ID

771

Entry Type

New (draft)

Date Created

December 12, 2012

Notes and Special Changes

Will be applying for AA: Foundations Symbolic (FS) designation.

Stakeholders Consulted

Department announcement 12/7/2012. Department suggestions week of 1/29/2013

1. Justification

New course a follow up to ICS 141. This would allow students to complete lower level courses required for ICS major at Manoa.

2. Course Alpha

ICS

3. Course Number

241

4. Course Title (long)

Discrete Mathematics for Computer Science II
5. Course Title Short
Discrete Mathematics II

6. Course Credits
3

7. Course Credit Upper Range
0

Repeatable
Will default to 98 (this is how often someone can sign up for the course (not how many times they can apply it to a degree)

8. Course Description
Includes program correctness, recurrence relations and their solutions, divide and conquer relations, graph theory, trees and their applications, Boolean algebra, introduction to formal languages and automata theory.

9. Course Pre-Requisites
Grade of "C" or better in ICS 141 or consent of instructor.

10. Course Co-Requisites

11. Course Recommended Preparation

12. Contact Hours (lecture, lab, lecture/lab)

13. Department
Mathematics and Business

14. Cross-Listing
15. Course Content


16. Course Competencies


17. Assessments, Tasks, and Grading

Assessments may include homework assignments and exams to solve high-level situational problems supported by an analysis using more complex mathematical formulas, algorithms, and techniques.

Grading Options

Will be set to Banner default

18. Auxiliary Materials and Content

19. Additional Activities outside of class and class time

20. Special Costs connected to the course

21. What are the Student Learning Outcomes?

Analyze issues and apply more complex mathematical problem solving skills to plan courses of actions in high-level decision-making situations.

22. Connection between the Course SLOs and the College's General Education Outcomes

GenEd: Make judgments, solve problems, and reach decisions using analytical, critical, and creative thinking skills.

23. How does the proposal connect to the college’s strategic plan?
Windward Community College Action Outcomes 4.3 Expand the curriculum that prepares students for nursing, social work, information technology, and other critical workforce shortage areas by adding at least one new course per year. Windward CC Strategic Plan 2.8 Increase the diversity and number of programs offered to or in under served regions by increasing the number and types of programs Community College System Action Outcomes 4.1. Increase by 3% per year the number of degrees awarded, and/or transfers to UH baccalaureate programs that lead to occupations where there is a demonstrated state shortage of qualified workers and where the average wage is at or above the U.S. average ($38,651 YR 2006). 4.3 Increase by 3% per year the number of degrees and certificates awarded in Science, Technology, Engineering, and Math (STEM) fields.

24. Describe the staff that will be needed

Current staff

25. Describe the facilities that will be needed, including special rooms

26. Describe any other resources that will be needed

27. How will the staff, facilities, and other resources for the course be secured?

Student tuition

28. Certificates

29. Connection to the AA degree

30. Maximum Credits Towards an AA Degree

3

31. List any similar classes taught at outside of the UH system

Hawaii Pacific University - Math 3301: Discrete Mathematics
Chaminade University - MA 308: Discrete Mathematics
32. List any similar classes taught at campuses in the UH System.
ICS 241 is listed at KCC, LCC and UH Manoa CS 241 taught at UH Hilo

33. How, if at all, is the course intended to count in lieu of a course taught at a four-year campus.
ICS 241 taught at UH Manoa CS 241 taught at UH Hilo This is the same course and is covered in system-wide articulation agreement

34. How, if at all, is the course similar to upper-division courses in the UH System.

35. How does the course articulate with four-year programs (Gen Ed)?
Previous ICS articulation agreement 2007

36. List any articulations between this course and any four-year program.
Previous ICS articulation agreement 2007

End of Proposal