Curriculum Action Request (CAR) Form
COURSE (New Course, Course Modification, Five Year Review)
University of Hawai'i Maui College

Curriculum Proposal # 2015 33

(for CURCOM use only)

1. Curriculum Action

☐ New Course ☑ Course Modification ☐ Five Year Review

2. Proposer

Debasis Bhattacharya

3. Department

☐ Allied Health ☑ Business & Hospitality ☐ Career & Tech Education

☐ English ☐ Humanities ☐ Social Science

☐ Science/Tech/Eng/Math

4. Course Alpha

ICS

5. Course Number

385

6. Course Title

Web Devl-Admin

7. If this is a course modification or a five year review, please check the curriculum items being modified.

☐ 1. Course Alpha ☐ 2. Course Number ☐ 3. Course Title
☐ 4. Credits ☐ 5. Contact Hours ☐ 6. Course Description
☑ 7. Prerequisites ☐ 8. Corequisites ☐ 9. Rec Prep
☐ 10. Cross-list w other course ☐ 13. Grading Method ☐ 14. Repeatable for credit?
☐ 15. SLOs ☐ 16. Course Competencies ☐ 17. Content & Timeline
☐ 18. PLOs ☐ 19. CASLOs ☐ 21. Method of Delivery
☐ 22. Text and Materials ☐ 23. Maximum Enrollment ☐ 29. Course Designation
☐ 31. Catalog Modification
☐ Other [   ]

8. Proposed Semester

Fall 2015

9. Effective Semester (1 Year from Proposed Semester)

Fall 2016

University of Hawaii Maui College
ICS 385 - Web Development and Administration

1. **Course Alpha.**

   ICS

2. **Course Number.**

   385

3. **Course Title/Catalog Title.**

   Web Development and Administration

4. **Number of Credits.**

   3

5. **Contact Hours/Type.**

   - Hour lecture (3)

6. **Course Description.**

   Provides detailed knowledge of web page authoring. Demonstrates scripting in operating systems, web pages, server-side application integration, regular expressions, event handling, input validation, selection, repetition, parameter passing. Develops an e-commerce web site that uses a standard browser to accept user input, processes the user input with business logic, and connects to a back-end SQL database. Discusses topics in web site administration. Covers site management (operating system, web server and database installation and administration); security (cryptography, authentication, digital certificates); and content (site design, ethical and business considerations).

7. **Pre-Requisites.**

   ICS 320 with grade C or better, or consent.

8. **Co-requisites.**

   None

9. **Recommended Preparation.**

   None

10. **Is this a cross-listed course?**

    NO

11. **Reason for Proposal. Why is this course being proposed or modified? This question requires specific information as part of the explanation.**

    ICS 385 or Web Development and Admin now focuses on only ICS 320 (Intro to Information Systems and E-Commerce) as the prerequisite. This simplifies the pathway for students and allows students to transfer into upper division ABIT program from a variety of lower division disciplines.

12. Effective Semester and Year.

Fall 2016

13. Grading Method. What grading methods may be used for this course?

- Standard (Letter,Cr/NCr,Audit) (0)

14. Is this course repeatable for credit? How often can this course be counted toward a degree or certificate?

NO

15. Course Student Learning Outcomes (SLOs).

Course SLO/Competency	Analyze role of structured data such as XML and its role in web development	Explain modern asynchronous web technologies such as AJAX and its capabilities	Explain the role of graphic technologies such as Flash in web development	Explain techniques in server-side web development using technology such as PHP	Demonstrate server-side web technologies such as Java Web Software and ASP.Net	Explain the methods to access modern database through the Web	Explain emerging web development technologies such as Ruby on Rails	Develop an e-commerce web site that connects to a back-end SQL database.	Demonstrate web site administration and site management	Explain web site security such as cryptography, authentication and digital certificates	Demonstrate content design techniques such as site design, ethical and business considerations
Apply critical thinking skills to evaluate information, solve problems, and make decisions	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Demonstrate in written form knowledge of e-commerce		☑	☑	☑			☑	☑	☑		
Demonstrate knowledge of web development applications	☑	☑	☑		☑	☑			☑	☑	
Apply knowledge of e-commerce to creating e-commerce sites				☑	☑	☑	☑				

Course SLO/PSLO	Apply knowledge of essential business disciplines including accounting, economics, finance, law, management, and marketing, and use business research methods to analyze information in order to develop solid business plans and strategies, and make efficient business decisions.	Demonstrate knowledge of operating system, word processing, spreadsheet, presentation software, database management, computer troubleshooting, web development, and e-commerce.	Apply knowledge of graphical user interface (GUI) and event-driven programming (EDP) to designing, creating, and testing computer programs.	Apply critical thinking skills to evaluate information, solve problems, and make decisions.	Use information retrieval and technology.	Communicate effectively with other utilizing appropriate forms of oral and written communication methods including multimedia presentations that apply information technologies and serve particular audiences and purposes
Apply critical thinking skills to evaluate information, solve problems, and make	☑	☑		☑		

decisions						
Demonstrate in written form knowledge of e-commerce					☑	☑
Demonstrate knowledge of web development applications	☑		☑	☑	☑	☑
Apply knowledge of e-commerce to creating e-commerce sites	☑		☑	☑		☑

16. Course Competencies.

Competency
Analyze role of structured data such as XML and its role in web development
Explain modern asynchronous web technologies such as AJAX and its capabilities
Explain the role of graphic technologies such as Flash in web development
Explain techniques in server-side web development using technology such as PHP
Demonstrate server-side web technologies such as Java Web Software and ASP.Net
Explain the methods to access modern database through the Web
Explain emerging web development technologies such as Ruby on Rails
Develop an e-commerce web site that connects to a back-end SQL database.
Demonstrate web site administration and site management
Explain web site security such as cryptography, authentication and digital certificates
Demonstrate content design techniques such as site design, ethical and business considerations

17. Recommended Course Content and Timeline. The course content facilitates the course competencies. Course content may be organized by weeks, units, topics or the like.

Content
1. Core concepts in server side web development - 6 weeks
2. E-Commerce web site development - 4 weeks
3. Site Security, Administration and Design - 6 weeks

18. Program Learning Outcomes.

Program SLO
Apply knowledge of essential business disciplines including accounting, economics, finance, law, management, and marketing, and use business research methods to analyze information in order to develop solid business plans and strategies, and make efficient business decisions.
Demonstrate knowledge of operating system, word processing, spreadsheet, presentation software, database management, computer troubleshooting, web development, and e-commerce.
Apply knowledge of graphical user interface (GUI) and event-driven programming (EDP) to designing, creating, and testing computer programs.
Apply critical thinking skills to evaluate information, solve problems, and make decisions.
Use information retrieval and technology.
Communicate effectively with other utilizing appropriate forms of oral and written communication methods including multimedia presentations that apply information technologies and serve particular audiences and purposes

19. College-wide Academic Student Learning Outcomes (CASLOs).

☑ **Creativity** - Able to express originality through a variety of forms.
    ☑ Level 1

☑	**Critical Thinking** - Apply critical thinking skills to effectively address the challenges and solve problems. ☑ Level 2
☑	**Information Retrieval and Technology** - Access, evaluate, and utilize information effectively, ethically, and responsibly. ☑ Level 2
☑	**Oral Communication** - Practice ethical and responsible oral communications appropriately to a variety of audiences and purposes. ☑ Level 2
☑	**Quantitative Reasoning** - Synthesize and articulate information using appropriate mathematical methods to solve problems of quantative reasoning accurately and appropriately. ☑ Level 2
☑	**Written Communication** - Write effectively to convey ideas that meet the needs of specific audiences and purposes. ☑ Level 1

20. Linking.

21. Method(s) of delivery appropriate for this course.

- Cable TV (0)
- Classroom/Lab (0)
- HITS/Interactive TV (0)
- Hybrid (0)
- Online (0)

22. Text and Materials, Reference Materials, and Auxiliary Materials.

Appropriate text(s) and materials will be chosen at the time the course is offered from those currently available in the field. Examples include: Programming the WWW by Sebesta, latest edition

Appropriate reference materials will be chosen at the time the course is offered from those currently available in the field. Examples include: Internet references on web programming

Appropriate auxiliary materials will be chosen at the time the course is offered from those currently available in the field. Examples include: Internet tutorials on web programming

23. Maximum enrollment.

35

24. Particular room type requirement. Is this course restricted to particular room type?

NO

25. Special scheduling considerations. Are there special scheduling considerations for this course?

NO

26. Are special or additional resources needed for this course?

No

27. Does this course require special fees to be paid for by students?

NO

28. Does this course change the number of required credit hours in a degree or certificate?

No

29. Course designation(s) for the Liberal Arts A.A. degree and/or for the college's other associate degrees.

Degree	Program	Category
Associate in Arts:	Liberal Arts	LE - Elective
AS:		
AAS:		
BAS:	ABIT	IC - ABIT Information Technology Core
Developmental/Remedial:		

30. Course designation(s) for other colleges in the UH system.

The course content is similar to, but not equivalent to UH Hilo's CS 201 and CS 300.

31. Indicate the year and page # of UHMC catalog referred to. For new or modified courses, please indicate the catalog pages that need to be modified and provide a sheet outlining those changes.

UHMC Catalog 2015 - 2016 needs to be updated in the course description for ICS 360 on page 128

32. College-wide Academic Student Learner Outcomes (CASLOs).

Standard 1 - Written Communication Write effectively to convey ideas that meet the needs of specific audiences and purposes.	
Outcome 1.1 - Use writing to discover and articulate ideas.	2
Outcome 1.2 - Identify and analyze the audience and purpose for any intended communication.	2
Outcome 1.3 - Choose language, style, and organization appropriate to particular purposes and audiences.	1
Outcome 1.4 - Gather information and document sources appropriately.	2
Outcome 1.5 - Express a main idea as a thesis, hypothesis, or other appropriate statement.	2
Outcome 1.6 - Develop a main idea clearly and concisely with appropriate content.	2
Outcome 1.7 - Demonstrate a mastery of the conventions of writing, including grammar, spelling, and mechanics.	1
Outcome 1.8 - Demonstrate proficiency in revision and editing.	1
Outcome 1.9 - Develop a personal voice in written communication.	1
Standard 2 - Quantitative Reasoning Synthesize and articulate information using appropriate mathematical methods to solve problems of quantative reasoning accurately and appropriately.	
Outcome 2.1 - Apply numeric, graphic, and symbolic skills and other forms of quantitative reasoning accurately and appropriately.	2
Outcome 2.2 - Demonstrate mastery of mathematical concepts, skills, and applications, using technology when appropriate.	3
Outcome 2.3 - Communicate clearly and concisely the methods and results of quantitative problem solving.	2
Outcome 2.4 - Formulate and test hypotheses using numerical experimentation.	2
Outcome 2.5 - Define quantitative issues and problems, gather relevant information, analyze that information, and present results.	2
Outcome 2.6 - Assess the validity of statistical conclusions.	1
Standard 3 - Information Retrieval and Technology. Access, evaluate, and utilize information effectively, ethically, and responsibly.	
Outcome 3.1 - Use print and electronic information technology ethically and responsibly.	2

Outcome 3.2 - Demonstrate knowledge of basic vocabulary, concepts, and operations of information retrieval and technology.	2
Outcome 3.3 - Recognize, identify, and define an information need.	1
Outcome 3.4 - Access and retrieve information through print and electronic media, evaluating the accuracy and authenticity of that information.	2
Outcome 3.5 - Create, manage, organize, and communicate information through electronic media.	2
Outcome 3.6 - Recognize changing technologies and make informed choices about their appropriateness and use.	1
Standard 4 - Oral Communication Practice ethical and responsible oral communications appropriately to a variety of audiences and purposes.	
Outcome 4.1 - Identify and analyze the audience and purpose of any intended communication.	2
Outcome 4.2 - Gather, evaluate, select, and organize information for the communication.	2
Outcome 4.3 - Use language, techniques, and strategies appropriate to the audience and occasion.	2
Outcome 4.4 - Speak clearly and confidently, using the voice, volume, tone, and articulation appropriate to the audience and occasion.	2
Outcome 4.5 - Summarize, analyze, and evaluate oral communications and ask coherent questions as needed.	2
Outcome 4.6 - Use competent oral expression to initiate and sustain discussions.	2
Standard 5 - Critical Thinking Apply critical thinking skills to effectively address the challenges and solve problems.	
Outcome 5.1 - Identify and state problems, issues, arguments, and questions contained in a body of information.	3
Outcome 5.2 - Identify and analyze assumptions and underlying points of view relating to an issue or problem.	3
Outcome 5.3 - Formulate research questions that require descriptive and explanatory analyses.	3
Outcome 5.4 - Recognize and understand multiple modes of inquiry, including investigative methods based on observation and analysis.	3
Outcome 5.5 - Evaluate a problem, distinguishing between relevant and irrelevant facts, opinions, assumptions, issues, values, and biases through the use of appropriate evidence.	3
Outcome 5.6 - Apply problem-solving techniques and skills, including the rules of logic and logical sequence.	3
Outcome 5.7 - Synthesize information from various sources, drawing appropriate conclusions.	3
Outcome 5.8 - Communicate clearly and concisely the methods and results of logical reasoning.	3
Outcome 5.9 - Reflect upon and evaluate their thought processes, value system, and world views in comparison to those of others.	2
Standard 6 - Creativity Able to express originality through a variety of forms.	
Outcome 6.1: Generate responses to problems and challenges through intuition and non-linear thinking.	2
Outcome 6.2: Explore diverse approaches to solving a problem or addressing a challenge.	1
Outcome 6.3: Sustain engagement in activities without a preconceived purpose.	2
Outcome 6.4: Apply creative principles to discover and express new ideas.	2
Outcome 6.5: Demonstrate the ability to trust and follow one's instincts in the absence of external direction	1
Outcome 6.6: Build upon or adapt the ideas of others to create novel expressions or new solutions.	2

33. Additional Information