

California State University Channel Islands
New Course Proposal

Program Area: Computer Science

1. Catalog Description of the Course.

IT 401 WEB INTELLIGENCE (3)

Three hours of lecture in the lab per week

Prerequisites: IT 402

Using web programming to extract information, using intelligent search engines, artificial intelligence techniques (expert systems, agents). Topics include: data mining, data warehousing, natural language processing, decision support systems, and intelligent agents.

2. Mode of Instruction.

	<u>Units</u>	<u>Hours per Unit</u>	<u>Benchmark Enrollment</u>
Lecture	3	1	24
Seminar	0	0	0
Laboratory	0	0	0
Activity	0	0	0

3. Justification and Learning Objectives.

Justification: BSIT elective.

Learning Objectives:

Students who successfully complete this course will:

- 1.Be able to design implement and test a basic web crawler.
- 2.Be able to organize data in a relational database structure.
- 3.Be able to design and implement a simple decision support system.
- 4.Be able to explain the web services concept.
- 5.Be able to analyze the functionality of an intelligent agent.
- 6.Be able to classify web software agents.
- 7.Be able to classify and analyze web knowledge sources.

4. Is this a General Education Course?

No.

5. Course Content in Outline Form.

Topics:

- 1.Natural Language Processing.
- 2.Java programming on the web.
- 3.WWW Search Engines.
- 4.Web Services.
- 5.Artificial Intelligence Concepts.
- 6.Decision Support Systems.
- 7.Database and Knowledge Representation Concepts.
- 8.Information Distribution.
- 9.Intelligent Agents.

6. Cross-listed Courses.

None.

7. References.

<u>Title</u>	<u>Author</u>	<u>Publisher</u>	<u>Year</u>	<u>ISBN</u>
1. Reasoning about Rational Agents (Intelligent Robotics and Autonomous Agents)	Michael Wooldridge	MIT Press	2000	0262232138
2. Constructing Intelligent Agents Using Java: Professional Developer's Guide, 2nd Edition	Joseph Bigus	John Wiley & Sons	2001	047139601X
3. Web Data Mining and Applications in Business Intelligence and Counter-Terrorism	Bhavani Thuraisingham	CRC Press	2003	0849314607

8. Faculty Qualified to Teach This Course.

Qualified Faculty: Smith,Wolfe

9. Frequency.

Projected semesters to be offered: Fall, Spring, Summer

10. New Resources Required.

- a. New Equipment needs: Use of existing computer lab.
- b. New Library needs: none
- c. New Space/Facilities needs: none

11. Program Modifications.

None.

12. Proposer of Course.

Proposer: Smith, Wolfe Date: 10/23/03