FLORIDA ATLANTIC UNIVERSITY

Graduate Programs—NEW COURSE PROPOSAL[1]

UGPC APPROVAL _____
UFS APPROVAL _____
SCNS SUBMITTAL _____
CONFIRMED _____
BANNER POSTED _____
CATALOG _____

DEPARTMENT: DEPARTMENT OF COMPUTER & ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

COLLEGE: ENGINEERING AND COMPUTER SCIENCE

RECOMMENDED COURSE IDENTIFICATION:

PREFIX ____CAP____ COURSE NUMBER ___6776____ LAB CODE (L or C) ____

(TO OBTAIN A COURSE NUMBER, CONTACT HMALDONADO@FAU.EDU)

COMPLETE COURSE TITLE: INFORMATION RETRIEVAL

EFFECTIVE DATE
(first term course will be offered)

__FALL 2016____

CREDITS[2]: 3

TEXTBOOK INFORMATION:
Christopher D. Manning, Prabhakar Raghavan, Hinrich Schütze: Introduction to Information Retrieval, Cambridge University Press, July, 2008. ISBN: 9780521865715

GRADING *(SELECT ONLY ONE GRADING OPTION)*: REGULAR ___X___ SATISFACTORY/UNSATISFACTORY _____

COURSE DESCRIPTION, NO MORE THAN THREE LINES:

This course teaches concepts, techniques, and popular tools and applications in information retrieval (IR), which aims to obtain relevant information from a collection of resources. The class will cover efficient text indexing, text processing, web search, and text mining. New applications will also be introduced.

PREREQUISITES*:	COREQUISITES*:	REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL)*:
COP3530 Data Structures and Algorithm Analysis or permission of the instructor		GRADUATE STUDENTS IN COMPUTER SCIENCE, COMPUTER ENGINEERING, OR ELECTRICAL ENGINEERING

* *PREREQUISITES, COREQUISITES AND REGISTRATION CONTROLS WILL BE ENFORCED FOR ALL COURSE SECTIONS.*

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE:
MEMBER OF THE GRADUATE FACULTY OF FAU AND HAS A TERMINAL DEGREE IN THE SUBJECT AREA (OR A CLOSELY RELATED FIELD)

Faculty contact, email and complete phone number:
Dingding Wang, wangd@fau.edu, 561-297-3228

Please consult and list departments that might be affected by the new course and attach comments.[3]
ITOM (College of Business)
Mathematical Sciences (College of Science)

Approved by:	*Date:*
Department Chair: Nurgun Erdol	9/9/15
College Curriculum Chair:	9/21/15
College Dean:	9/21/2015
UGPC Chair:	
Graduate College Dean:	
UFS President:	
Provost:	

1. Syllabus must be attached: see guidelines for requirements: *www.fau.edu/provost/files/course syllabus.2011.pdf*
2. Review **Provost Memorandum: Definition of a Credit Hour** *www.fau.edu/provost/files/Definition Credit Hour Memo 2012.pdf*
3. Consent from affected departments (attach if necessary)

Email this form and syllabus to *UGPC@fau.edu* **one week before** the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website prior to the meeting.

Department of Computer & Electrical Engineering
and Computer Science
Florida Atlantic University
Course Syllabus

1. Course title/number, number of credit hours	
CAP 6776: Information Retrieval	3 # of credit hours

2. Course prerequisites, corequisites, and where the course fits in the program of study

COP3530 Data Structures and Algorithm Analysis
Or permission of the instructor

3. Course logistics

Term: Fall 2016
This is a classroom lecture course

Text book: Christopher D. Manning, Prabhakar Raghavan, Hinrich Schütze: Introduction to Information Retrieval, Cambridge University Press, July, 2008. ISBN: 9780521865715
This course has moderate design content.

4. Instructor contact information

Instructor's name	Dr. Dingding Wang, Assistant Professor
Office address	Engineering East (EE96) Rm 510
Office Hours	TBA
Contact telephone number	561-297-3228
Email address	wangd@fau.edu

5. TA contact information

TA's name	
Office address	
Office Hours	
Contact telephone number	
Email address	

6. Course description

This course teaches concepts, techniques, and popular tools and applications in information retrieval (IR), which aims to obtain relevant information from a collection of resources. The class will cover efficient text indexing, text processing, web search, and text mining. New applications will also be introduced.

7. Course objectives/student learning outcomes/program outcomes

Course objectives	This course will provide students with both theory and applications of Information Retrieval. Students will gain basic to advanced knowledge and hands-on experience. At the end of the class, students should be able to master latest techniques of text indexing, web search, text mining and system evaluation including building index, calculating term weights and ranking scores, etc. Students

	will form teams and apply these techniques on real-world web data using IR tools.

8. Course evaluation method

Assignments (computer-based)- 80 % Project Report - 20 % Note: Project topics include: IR tool design and development or survey of an IR topic, e.g., recommendation systems.	

9. Course grading scale

Grading Scale:
90 and above: "A", 87-89: "A-", 83-86: "B+", 80-82: "B", 77-79 : "B-", 73-76: "C+", 70-72: "C", 67-69: "C-", 63-66: "D+", 60-62: "D", 51-59: "D-", 50 and below: "F."

10. Policy on makeup tests, late work, and incompletes

Makeup exams are given only if there is solid evidence of a medical or otherwise serious emergency that prevents the student of participating in the exam. Makeup exams will be administered and proctored by department personnel unless there are other pre-approved arrangements.

A grade of incomplete will be assigned only in the case of solid evidence of medical or otherwise serious emergency situation.

Must turn in homework, reports and projects on time. One point per working day will be deducted from the late assignment. Will not accept your work after 3 working days or the solution has been provided.

11. Special course requirements

N/A

12. Classroom etiquette policy

University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions.

13. Disability policy statement

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton campus, SU 133 (561) 297-3880 and follow all OSD procedures.

14. Honor code policy

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a

system of mutual trust and place high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. See University Regulation 4.001 at www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

15. Required texts/reading

Christopher D. Manning, Prabhakar Raghavan, Hinrich Schütze: Introduction to Information Retrieval, Cambridge University Press, July, 2008. ISBN: 9780521865715
Hand-outs and notes

16. Supplementary/recommended readings

Bruce Croft, Donald Metzler, Trevor Strohman: Search Engines: Information Retrieval in Practice. ISBN-10: 0136072240 • ISBN-13: 9780136072249

17. Course topical outline, including dates for exams/quizzes, papers, completion of reading

Week 1	Boolean retrieval
Week 2	The term vocabulary and postings lists
Week 3	Dictionaries and tolerant retrieval **Assignment 1 will be given**
Week 4	Scoring and term weighting
Week 5	Vector space model
Week 6	Semantic similarity **Assignment 2 will be given**
Week 7	Computing scores in a complete search system
Week 8	Evaluation in IR **Assignment 3 will be given**
Week 9	Text classification **Project specifications will be given**
Week 10	Text clustering
Week 11	Text summarization **Assignment 4 will be given**
Week 12	Tools and Application
Week 13	**Project review and student presentations**
Week 14	**Student presentations**

RE: Request from the CEECS Department

Tamara Dinev

To: Mihaela Cardei

Cc: Nurgun Erdol; Chiang-Sheng Huang; Caryn Conley

Tuesday, September 15, 2015 2:10 PM

Dear Dr. Cardei:

Regarding the 4 new course proposals below, I approve of their creation.

Regarding the Certificate in Big Data Analytics, per our conversation today with Dr. Erdol, rather than having two separate certificates in Data/Business Analytics, we agreed to create one certificate – in Big Data Analytics – with two tracks: Computer Science track and Business track. Students in each track with take 3 courses offered by the corresponding college, and one from the other college. Thus, a student in Computer Science track will take 3 CAP courses and 1 ISM course, and a student in College of Business will take 3 ISM courses and one CAP course.

Please contact Dr. Huang to coordinate how to amend our proposals toward this final version and fast track through the colleges so we can present our proposal at the upcoming University Council session.

Best Regards:
Tamara
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Tamara Dinev, Ph.D.
Department Chair and Professor
Department of Information Technology and Operations Management
College of Business
Florida Atlantic University
Boca Raton, Florida 33431
OFFICE: Fleming Hall, 219
TEL: (561) 297-3181
FAX: (561) 297-3043
e-mail: tdinev@fau.edu

From: Mihaela Cardei
Sent: Thursday, September 10, 2015 9:25 AM
To: Tamara Dinev <tdinev@fau.edu>
Cc: Nurgun Erdol <erdol@fau.edu>; Mihaela Cardei <mcardei@fau.edu>
Subject: Request from the CEECS Department

Dear Dr. Dinev

I am the chair of the Graduate Programs Committee in the Department of Computer & Electrical Engineering and Computer Science (CEECS) at FAU, and we are proposing a Certificate Program in Big Data Analytics.

Please find attached to this email the Certificate description and 4 new course proposals (CAP 6771, CAP 6780, CAP6688, and CAP6776) which are listed in the Certificate.

We would need you approval that ITOM Department supports the Certificate in Big Data Analytics and the 4 new courses.

Could you please review the material and email me your approval decision?

Thank you,

Mihaela Cardei, PhD
Professor
Computer & Electrical Engineering and Computer Science Department
College of Engineering and Computer Science
Florida Atlantic University
http://www.cse.fau.edu/~mihaela

Re: Request for approval - Big Data Analytics Certificate & new courses

Rainer Steinwandt [srainer@math.fau.edu]

To: [illegible]

[illegible], September [illegible]

Dear Mihaela,

Thank you for your email. The proposed certificate program and the associated courses of the CEECS Department and ITOM look very fine to me. For the Department of Mathematical Sciences, I support this certificate program and the associated courses and hope that this program will be a great success.

Kind regards,
Rainer

----- Original Message -----
From: "Mihaela Cardei" <mcardei@fau.edu>
To: "Rainer Steinwandt" <srainer@math.fau.edu>
Cc: "Nurgun Erdol" <erdol@fau.edu>, "Tamara Dinev" <tdinev@fau.edu>, "Chiang-Sheng Huang" <dhuang@fau.edu>, "Mihaela Cardei" <mcardei@fau.edu>
Sent: Wednesday, September 16, 2015 7:26:41 PM
Subject: Request for approval - Big Data Analytics Certificate & new courses

Dear Dr. Steinwandt,

The Department of Computer & Electrical Engineering and Computer Science (CEECS) and the Department of Information Technology and Operations Management (ITOM) at FAU are proposing a joint Certificate Program in Big Data Analytics, with two tracks: Computer Science and Business.

In addition, CEECS Department is proposing 4 new course proposals (CAP 6771, CAP 6780, CAP6688, and CAP6776) and ITOM is proposing 3 new course proposals (ISM6422, ISM6119, ISM6058).

Please find attached to this email the Certificate and new course proposal documents.

We would need your approval that the Department of Mathematical Sciences supports the joint Certificate in Big Data Analytics and the new course proposals.

Could you please review the material and email me your approval decision?

Thank you,

Mihaela Cardei, PhD
Professor
Computer & Electrical Engineering and Computer Science Department
College of Engineering and Computer Science
Florida Atlantic University
http://www.cse.fau.edu/~mihaela