| Fau   | COURSE CHANGE REQUEST<br>Graduate Programs |   | UGPC Approval<br>UFS Approval<br>SCNS Submittal |                      |  |
|---|--|---|---|----------------------|--|
| FLORIDA<br>ATLANTIC   | Department CEECS                           |   |   | Confirmed            |  |
| UNIVERSITY  | College                                    |   |   | Banner               |  |
|   |  |   |   | Catalog              |  |
| Current CourseCurrent CoursePrefix and NumberCAP 6640Natural Lan  |  |   | ourse Title                                     |                      |  |
| <i>Syllabus must be attached for ANY changes to current course details. See <u>Guidelines</u>. Please consult and list departments</i>                          |  |   |   |                      |  |
| that may be affecte   | d by the changes; attach doc               | rumentation.  |   |                      |  |
| Change title to:  |  |   | Change description t                            | 0:                   |  |
|   |  |   |   |                      |  |
| Change prefix   |  |   |   |                      |  |
| From:   | То:  |   | Change prerequisited                            | s/minimum grades to: |  |
| Change course number  |  | Change prerequisites/minimum grades to:<br>Graduate standing for CEECS students, and                |   |                      |  |
| From: To:   |  | instructor's approval for students from other major.  |   |                      |  |
| Change credits*   |  | Change corequisites to:   |   |                      |  |
| From:   | То:  |   |   |                      |  |
| Change grading  |  |   |   |                      |  |
| From:   | То:  |   | Change registration of                          | controls to:         |  |
| Academic Servie   | ce Learning (ASL) **                       |   |   |                      |  |
| Add   | Remove                                     |   |   |                      |  |
| <ul> <li>Review Provost Memorandum</li> <li>** Academic Service Learning statement must be indicated in syllabus and approval attached to this form.</li> </ul> |  | Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade. |   |                      |  |
| Effective Term/<br>for Changes:   | /Year<br>Spring 2021                       |   | Terminate course? E<br>for Termination:         | ffective Term/Year   |  |
| Faculty Contact/Email/Phone Hanqi Zhuang/zuang@fau.edu/ 297-3413  |  |   |   |                      |  |
| Approved by<br>Hanqi Zhuang   |  |   | Date  |                      |  |
| Department Chair  | Department Chair                           |   |   |                      |  |
| Digitally signed by Mhaela Cardei Digitally signed by Mhaela Cardei Dic   |  |   | 220.10.22.12:46:31-04'00'                       |                      |  |
| College Dean Ucardue  |  |   |   |                      |  |
| UGC Chair   |  |   |   |                      |  |
| Graduate College Dean   |  |   |   |                      |  |
| UFS President   |  |   |   |                      |  |
| Provost   |  |   |   |                      |  |

Email this form and syllabus to  $\underline{\text{UGPC@fau.edu}}$  10 days before the UGPC meeting.

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

| 1 Course title/number num   | ber of credit hours  |  |  |  |
|---|--|--|--|--|
| 1. Course title/number, number of credit hoursCAP 6640 Natural Language Processing3 credit hours  |  |  |  |  |
|   |  |  |  |  |
|   | quisites, and where the course fits  |  |  |  |
|   | ding for CEECS students, and instruc   | ctor's approval for students from  |  |  |
| other major.  |  |  |  |  |
| 3. Course logistics   |  |  |  |  |
| Term: TBD   |  |  |  |  |
| Room: TBD   |  |  |  |  |
| Time: TBD   |  |  |  |  |
| Final Exam: TBD   |  |  |  |  |
| 4. Instructor contact information   |  |  |  |  |
| Instructor's name   | Dingding Wang  |  |  |  |
| Office address  | Engineering East (EE-96) Bldg., Rm. 510  |  |  |  |
| Office Hours  |  | Wed/Fri 1:00pm-2:00pm  |  |  |
| Contact telephone number  | (561) 297-3228   |  |  |  |
| Email address   | wangd@fau.edu  |  |  |  |
| 5. TA contact information   |  |  |  |  |
| TA's name   | TBD  |  |  |  |
| Office address  | TBD  |  |  |  |
| Office Hours  | TBD  |  |  |  |
| Email address   | TBD  |  |  |  |
|   |  |  |  |  |
| includes relevant background  | material in linguistics, mathematic  | ns of natural language processing. It<br>cs, probability and computer science.   |  |  |
| This course provides student<br>includes relevant background<br>Some of the topics covered in   | material in linguistics, mathematic  |  |  |  |
| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentimer<br>7. Course objectives/student   | a material in linguistics, mathemation<br>in the class are text similarity, part-or<br>int analysis and text summarization.  | es, probability and computer science.<br>f-speech tagging, parsing, semantics,   |  |  |
| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentime  | a material in linguistics, mathematic<br>in the class are text similarity, part-o<br>int analysis and text summarization.<br>tearning outcomes/program outco<br>At the end of the class, students s  | cs, probability and computer science.<br>f-speech tagging, parsing, semantics,<br><b>omes</b><br>hould be able to master latest Natural<br>chniques. Students will apply these   |  |  |
| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentimer<br>7. Course objectives/student   | a material in linguistics, mathematic<br>in the class are text similarity, part-o<br>int analysis and text summarization.<br><b>Learning outcomes/program outco</b><br>At the end of the class, students s<br>Language Processing (NLP) teo<br>techniques on real-world web dat  | cs, probability and computer science.<br>f-speech tagging, parsing, semantics,<br><b>omes</b><br>hould be able to master latest Natural<br>chniques. Students will apply these   |  |  |
| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentiment<br><b>7. Course objectives/student</b><br><i>Course objectives</i>   | a material in linguistics, mathematic<br>in the class are text similarity, part-or<br>int analysis and text summarization.<br><b>Elearning outcomes/program outco</b><br>At the end of the class, students s<br>Language Processing (NLP) teo<br>techniques on real-world web dat  | cs, probability and computer science.<br>f-speech tagging, parsing, semantics,<br><b>omes</b><br>hould be able to master latest Natural<br>chniques. Students will apply these   |  |  |
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| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentimed<br>7. Course objectives/student<br>Course objectives<br>8. Course evaluation methon<br>3 Assignments (computer-bas<br>Exam-30%<br>Project-25%   | d material in linguistics, mathemation<br>in the class are text similarity, part-on<br>int analysis and text summarization.<br><b>Learning outcomes/program outco</b><br>At the end of the class, students s<br>Language Processing (NLP) teo<br>techniques on real-world web dat<br>d<br>sed, 15% each) - 45%   | cs, probability and computer science.<br>f-speech tagging, parsing, semantics,<br><b>omes</b><br>hould be able to master latest Natural<br>chniques. Students will apply these<br>a using NLP tools.   |  |  |
| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentiment<br><b>7. Course objectives/student</b><br><i>Course objectives</i><br><b>8. Course evaluation methoo</b><br>3 Assignments (computer-base<br>Exam-30%<br>Project-25%<br>Notes: In the project, the stude  | a material in linguistics, mathematic<br>in the class are text similarity, part-on<br>int analysis and text summarization.<br><b>Learning outcomes/program outco</b><br>At the end of the class, students s<br>Language Processing (NLP) teo<br>techniques on real-world web dat<br>d<br>sed, 15% each) - 45%<br>dents will (1) read literatures and sum   | es, probability and computer science.<br>f-speech tagging, parsing, semantics,<br><b>omes</b><br>hould be able to master latest Natural<br>chniques. Students will apply these<br>a using NLP tools.<br>vey in an NLP area or (2) introduce an   |  |  |
| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentimed<br>7. Course objectives/student<br>Course objectives<br>8. Course evaluation method<br>3 Assignments (computer-bac<br>Exam-30%<br>Project-25%<br>Notes: In the project, the stud<br>NLP software toolkit  | d material in linguistics, mathemation<br>in the class are text similarity, part-or<br>int analysis and text summarization.<br><b>Learning outcomes/program outco</b><br>At the end of the class, students s<br>Language Processing (NLP) teo<br>techniques on real-world web dat<br>d<br>sed, 15% each) - 45%<br>dents will (1) read literatures and sum<br>the students will present their sum   | es, probability and computer science.<br>f-speech tagging, parsing, semantics,<br>mes<br>hould be able to master latest Natural<br>chniques. Students will apply these<br>a using NLP tools.<br>evey in an NLP area or (2) introduce an<br>veys or demos in class and submit a   |  |  |
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| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentiment<br><b>7. Course objectives/student</b><br><i>Course objectives</i><br><b>8. Course evaluation methol</b><br>3 Assignments (computer-base<br>Exam-30%<br>Project-25%<br>Notes: In the project, the stude<br>NLP software toolking<br>final report by summent<br><b>9. Course grading scale</b><br>Grading Scale:  | d material in linguistics, mathematid<br>in the class are text similarity, part-on<br>int analysis and text summarization.<br><b>Learning outcomes/program outco</b><br>At the end of the class, students s<br>Language Processing (NLP) teo<br>techniques on real-world web dat<br>d<br>sed, 15% each) - 45%<br>dents will (1) read literatures and sum<br>the students will present their sum<br>harizing their projects at the end of the   | es, probability and computer science.<br>f-speech tagging, parsing, semantics,<br><b>omes</b><br>hould be able to master latest Natural<br>chniques. Students will apply these<br>a using NLP tools.<br>vey in an NLP area or (2) introduce an<br>veys or demos in class and submit a<br>he semester.  |  |  |
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| This course provides student<br>includes relevant background<br>Some of the topics covered in<br>question answering, sentimed<br><b>7. Course objectives/student</b><br><i>Course objectives</i><br><b>8. Course evaluation methoo</b><br>3 Assignments (computer-base<br>Exam-30%<br>Project-25%<br>Notes: In the project, the stude<br>NLP software toolking<br>final report by summ<br><b>9. Course grading scale</b><br>Grading Scale:<br>90 and above: "A", 86-89: "At<br>", 60-63: "D+", 56-59: "D", 52-<br>Note: Calculated grades will b<br><b>10. Policy on makeup tests,</b><br><i>Makeup exams</i> are given only<br>prevented the student of part | d material in linguistics, mathematic<br>in the class are text similarity, part-or<br>int analysis and text summarization.<br><b>Learning outcomes/program outco</b><br>At the end of the class, students s<br>Language Processing (NLP) teo<br>techniques on real-world web dat<br>d<br>sed, 15% each) - 45%<br>dents will (1) read literatures and sum<br>the students will present their sum<br>harizing their projects at the end of the<br>set, 15% each) - 45%<br>- ", 82-85: "B+", 80-83: "B", 76-79: "E<br>to rounded to the nearest integer.<br>late work, and incompletes<br>if there is solid evidence of a medica  | es, probability and computer science.<br>f-speech tagging, parsing, semantics,<br><b>omes</b><br>hould be able to master latest Natural<br>chniques. Students will apply these<br>a using NLP tools.<br>vey in an NLP area or (2) introduce an<br>veys or demos in class and submit a<br>he semester.<br>G- ", 72-75: "C+", 68-71: "C", 64-67: "C-<br>l or otherwise serious emergency that<br>hs will be administered and proctored |  |  |

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

*Incomplete grades* are against the policy of the department, unless there is solid evidence of medical or otherwise serious emergency situation incomplete grades will not be given.

### 11. Special course requirements

None

### 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. Attendance policy statement

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences

include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

### 14. Disability policy statement

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at <u>www.fau.edu/sas/</u>

## 15. Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <a href="http://www.fau.edu/counseling/">http://www.fau.edu/counseling/</a>

## 16. Code of Academic Integrity Policy Statement

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 an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see <u>University Regulation 4.001</u>.

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

| 17. Required te | exts/reading                                      |  |  |
|-----------------|---|--|--|
| Speech and Lar  | nguage Processing (2nd edition)                   |  |  |
| Authors: Dan Ju | urafsky and James H. Martin                       |  |  |
| ISBN-13: 978-0: | 131873216, 2009.                                  |  |  |
| 18. Supplemer   | ntary/recommended readings                        |  |  |
| None            |   |  |  |
| 19. Course top  | ical outline                                      |  |  |
| DATE            | ΤΟΡΙΟ   |  |  |
| Week 1          | Introduction and NLP Tasks                        |  |  |
| Week 2          | Bag of Words Model and Text Similarity            |  |  |
|                 | Homework 1 posted.                                |  |  |
| Week 3          | Semantic Similarity Analysis                      |  |  |
| Week 4          | Syntax and Parsing                                |  |  |
|                 | Homework 1 due.                                   |  |  |
| Week 5          | Language Modeling and Word Sense Disambiguation   |  |  |
| Week 6          | Part of Speech Tagging and Information Extraction |  |  |
|                 | Homework 2 posted.                                |  |  |
| Week 7          | Supervised Learning Methods for NLP               |  |  |
| Week 8          | Unsupervised Learning Methods for NLP             |  |  |
|                 | Homework 2 due.                                   |  |  |
| Week 9          | Exam  |  |  |
| Week 10         | Question Answering Systems                        |  |  |
| Week 11         | Document Summarization                            |  |  |
|                 | Homework 3 posted.                                |  |  |
| Week 12         | Sentiment Analysis                                |  |  |
| Week 13         | Deep Learning for NLP                             |  |  |
|                 | Homework 3 due.                                   |  |  |
| Week 14         | Machine Translation, and Generation               |  |  |
| Week 15         | Student Project Presentations                     |  |  |
| Final Exam      | Final project Report due.                         |  |  |