ATTACHMENT 5.

T6. COURSE SPECIFICATIONS (CS)

ENG 491

Computational Linguistics

هيئة تقويم التعليم
Education Evaluation Commission

Course Specifications

Institution: King Saud University	Date: 30/1/2019
College/Department : College of Arts/Department of English Language and Literature	

A. Course Identification and General Information

1. Course title and code: Computational Linguistics - ENG 491
2. Credit hours: 3 hours
3. Program(s) in which the course is offered.
(If general elective available in many programs indicate this rather than list programs)
B. A. in English
4. Name of faculty member responsible for the course
Several Professors
5. Level/year at which this course is offered:
Seventh or Eighth Level (Elective)/Fourth Year
6. Pre-requisites for this course (if any):
ENG 222
7. Co-requisites for this course (if any):
None
8. Location if not on main campus:
9. Mode of Instruction (mark all that apply):

a. traditional classroom		What percentage?	70
b. blended (traditional and online)		What percentage?	
c. e-learning		What percentage?	30
d. correspondence		What percentage?	
f. other		What percentage?	

Comments:
All credit hours are carried out in a face-to-face traditional setting. However, the course is technology enabled making use of LMS to post the syllabus, content, online test and discussion boards etc.

B Objectives

1. What is the main purpose for this course?
    1. Show understanding of the basics of natural language processing.
    2. Show understanding of the theoretical underpinnings of applications such as machine translation, information retrieval, and spell checking.
    3. Make use of the applications, in 2 above, through available software.
    4. Use language-processing computer programs to analyze a variety of linguistic data.
    5. Show understanding of the field of corpus linguistics and its relevance to applied linguistics research.
    6. Make use of a variety of computer programs to analyze various linguistic aspects in language corpora

2. Briefly describe any plans for developing and improving the course that are being implemented. (e.g. increased use of IT or web based reference material, changes in content as a result of new research in the field)

1. The following series of orientation workshops are essential for BOTH faculty and students[1]:
Faculty: assessment and teaching methods applied in literature courses
Students:
Suggested workshops:

a) Basic skills with word processing software.
b) Plagiarism
c) Library research
d) Virtual classes
e) Critical and Investigative Thinking Skills
f) Comprehensive Reading of Literary Texts
g) Scholarly Sources: When and How to use them

2. End of term faculty meetings /workshops/discussions to assess efficacy of modes of instruction; material given; grading rubric; problems that need to be addressed

3. Annually confirm availability of resources. The library must coordinate with department and Quality to confirm it is equipped with references and required material (see below)

4. Provide support throughout the term from CWE (if available) and focused skills developments session to be offered by the relevant entities.

5. All instructors should have a clearly written assignment guide for all assignments in the course. Work on a combined unified assignment guide for literature courses, or at least a unified standard.

C. Course Description (Note: General description in the form used in Bulletin or handbook)

Course Description:
The course introduces students to the use of computers to represent and process human language, a field which combines insights from linguistics and computer science. It provides an opportunity for students to develop computer programming skills to a level that allows implementation of simple

[1] Workshops to be given by: the Centre for Writing in English (CWE) if available; Quality; Academic Improvement; Student Support Center if available; Library.

language processing systems. Moreover, the course provides an introduction to the field of corpus linguistics

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
What is Computational Linguistics? The objectives of computational linguistics; Computational and theoretical linguistics	**1**	**3**
Applications: Machine translation**;** information retrieval, and spell checking	**2**	**6**
Morphological Analysis	**2**	**6**
Syntactic Analysis: The role of syntax; phrase-structure languages; Transformational analyzers;	**2**	**6**
Semantic Analysis: Formal languages and meaning representations; Translation to logical form; Anaphora	**2**	**6**
Discourse Analysis and Information Structuring: Text grammar; Frames; Analyzing narratives; Analyzing dialogues	**2**	**6**
Introduction to Corpus Analysis: Corpus analysis techniques; An overview of English corpora; Issues in corpus construction	**2**	**6**
Concordance packages; The process of tagging; Using software for investigating the characteristics of varieties;	**2**	**6**
Review	**1**	**3**

2. Course components (total contact hours and credits per semester):

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	**42 hours**				**3 hours**	45 hours
	Actual						
Credit	Planned	3 hours					3 hours
	Actual						

3. Additional private study/learning hours expected for students per week. **6**
6 hours

4. Course Learning Outcomes in NQF Domains of Learning and Alignment with Assessment Methods and Teaching Strategy

- A brief summary of the knowledge or skill the course is intended to develop;
- A description of the teaching strategies to be used in the course to develop that knowledge or skill;

The methods of student assessment to be used in the course to evaluate learning outcomes in the domain concerned.

On the table below are the five NQF Learning Domains, numbered in the left column.

First, insert the suitable and measurable course learning outcomes required in the appropriate learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	Outline the basics of Natural Language processing.	1. Lectures 2. Reading assignments	1. Quizzes 2. Engagement in class discussions 3. Assignments
1.2	Recognize the theoretical underpinnings of computer applications: machine translation information retrieval, and spelling checks.		
1.3	State the relevance of corpus linguistics in the field of applied linguistics research: some applications.		
2.0	**Cognitive Skills**		
2.1	Explain the various computer applications taught, through available software.	1. Lab sessions 2. Assignments 3. Midterm project 4. Final project	1. Assignments 2. Midterm project Final project
2.2	Analyze a variety of linguistic data by using language processing computer programs to		
2.3	Analyze various linguistic aspects in language corpora. by using variety of computer programs to		
3.0	**Interpersonal Skills & Responsibility**		
3.1	Demonstrate leadership role	1. Assigning reading assignments to students prior to lectures. 2. Individual counselling on areas of concern to the students. 3. In-class participation where much of the most effective learning comes from students explaining, discussing and defending their ideas.	1. Active class participation reflects the student's willingness to learn with a positive attitude towards the course. 2. Performance on midterm, term papers, and final exam are evidence of the student's ability to recollect and synthesize information.

3.2	Illustrate self-professional development commitments.	1. To instil a sense of responsibility for one's learning. 2. To have clear deadlines for submissions, exam dates and other important rules to be written in the course syllabus, which is given to students at the beginning of each term.	Enforcing deadlines and rules mentioned in the syllabus.
3.3	Evaluate one's own work	Either one on one sessions or class	"reflect on one's work" session AFTER term paper or midterm submission
4.0	**Communication, Information Technology, Numerical**		
4.1	Develop writing and verbal skills for communication	This should be encouraged by the instructors in using any means of communication in class or outside class.	Class presentations Group work Journals
4.2	Search the digital library database.	Compilation of relevant bibliography	1. Use digital library database to compile a bibliography of the latest and/or most relevant scholarly articles dealing with the topic. 2. Correct referencing format and use of sources will be tested.
4.3	Operate the internet to communicate with the teaching staff or faculty	The use of LMS and email.	The use of a professional email address and language
5.0	**Psychomotor**		
5.1	None		

5. Schedule of Assessment Tasks for Students During the Semester

	Assessment task (i.e., essay, test, quizzes, group project, examination, speech, oral presentation, etc.)	Week Due	Proportion of Total Assessment
1	Short Assignments	throughout	20%
2	quizzes	throughout	20%
3	Midterm Project	Week 8	20%
4	Final Project	Week 15	40%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice. (include amount of time teaching staff are expected to be available each week)

6 hours between office hours and email correspondence

E Learning Resources

1. List Required Textbooks

Jurafsky, Daniel and James H. Martin. (2008). *SPEECH and LANGUAGE PROCESSING: An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition.* Prentice Hall.

Lindquist, Hans. (2009). *Corpus Linguistics and the Description of English.* Edinburgh University Press

2. List Essential References Materials (Journals, Reports, etc.)

Grishman, Ralph. (1986). *Computational Linguistics: An Introduction* .Cambridge University Press.

3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.

http://nlp.stanford.edu/links/statnlp.html http://www.georgetown.edu/cball/corpora/tutorial.html http://www.collocations.de/

4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.

Specific computer programs for NLP.

F. Facilities Required

Indicate requirements for the course including size of classrooms and laboratories (i.e. number of seats in classrooms and laboratories, extent of computer access, etc.)

1. Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)

Lecture rooms large enough to hold 30-40 students and computer labs

2. Technology resources (AV, data show, Smart Board, software, etc.)

Computer Labs

3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

List to be prepared by instructor and attached.

G Course Evaluation and Improvement Processes

1. Strategies for Obtaining Student Feedback on Effectiveness of Teaching

1. Midterm evaluation feed-back form to increase instructor's awareness of the weak and strong points of the class

2. End of term college evaluation of course by students (to be collected by the department)

3. End-of-term debriefing in class of students and teacher regarding what went well and what could have gone better 4. Small group instructional diagnosis (SGID) whereby instructors exchange classes and gather information from each others' students on specific points outlined by the department and the instructor being evaluated
2. Other Strategies for Evaluation of Teaching by the Program/Department Instructor 1. Peer evaluation to benefit from viewpoints of other faculty members 2. Class observations by coordinators or Head of department
3. Processes for Improvement of Teaching 1. Training sessions 2. Workshops to facilitate the exchange of experiences amongst faculty members 3. Regular meetings with coordinators and other instructors of the course where problems and challenges are discussed and solutions given 4. Encouragement of faculty members to attend professional development conferences. 5. Keep up to date with pedagogical theory and practice 6. Set goals for achieving excellence in teaching at the beginning of each new semester after reviewing last semester's teaching strategies and results
4. Processes for Verifying Standards of Student Achievement (e.g. check marking by an independent member teaching staff of a sample of student work, periodic exchange and remarking of tests or a sample of assignments with staff at another institution) 1. Regular meetings with the coordinator and other instructors to exchange samples of exam papers to verify standards of students' achievement. 2. Check marking of a sample of examination papers by another faculty member. 3. Students who believe they are under graded can have their papers checked by a second reader
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for improvement. 1. Compare syllabi and course description with other universities 2. Biannual meetings of faculty members to discuss improvement 3. Review curriculum periodically and suggest improvements

Name of Course Instructor: _____

Signature: _____ Date Specification Completed: _____

Program Coordinator: _____

Signature: _____ Date Received: _____