COURSE SPECIFICATIONS
Form

Course Title: Independent Studies I

Course Code: 14016461-2

Date: 2018 –10 – 21.   **Institution**: Umm Al–Qura University
College: College of Computer and Information Systems **Department**: Department of Computer Science

A. Course Identification and General Information

1. Course title and code: <u>Independent Studies I 14016461-2</u>
2. Credit hours: <u>2</u>
3. Program(s) in which the course is offered. <u>Master of Computer Science (Artificial Intelligence)</u> (If general elective available in many programs indicate this rather than list programs)
4. Name of faculty member responsible for the course <u>Dr. Murtaza Ali Khan</u>
5. Level/year at which this course is offered: <u>3</u>
6. Pre-requisites for this course (if any):
7. Co-requisites for this course (if any):
8. Location if not on main campus:

9. Mode of Instruction (mark all that apply):
    a. Traditional classroom   percentage?
 	
    b. Blended (traditional and online)   percentage?
 	
    c. E-learning   percentage?
 	
    d. Correspondence   percentage?
 	
    f. Other   percentage?   100
 	
Comments:

B Objectives

1. The main objective of this course

Independent study enables a student to pursue for course credit a research or other academic topic of interest under the supervision of a faculty member. The specific content of an offering of the course should focus on a specific area of Artificial Intelligence.

2. Describe briefly any plans for developing and improving the course that are being implemented. (e.g. increased use of the IT or online reference material, changes in content because of new research in the field)

The contents will be prepared from globally recognized text books, web-based reference materials and latest research in the field. The student and the course supervisor discuss and propose goals and topics. Students are expected to provide a progress report to their supervisor. At the end of the course, a seminar day will be announced in which students shall present their work.

C. Course Description (Note: General description in the form used in the program's bulletin or handbook)

Course Description:

Independent Study course is not a regularl schedule course, but is arranged, planned and managed by a supervising faculty member in line with the goals that are proposed by the student, and then approved by the supervisor. The course involves more student self-discipline and a greater sense of direction than ordinary courses. The he student is expected to plan and execute his/her activities with much less monitoring. At the end of the course, a seminar/presentation event will take place in which students will present their course projects/research work.

1. Topics to be Covered

List of Topics	No. of Weeks	Contact hours
TBA (To Be Announced)	1-14	42

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

		Lecture	Tutorial	Laboratory/ Studio	Practical	Other	Total
Contact Hours	Planned	As needed					As needed
	Actual	As needed					As needed
Credit	Planned	3					3
	Actual	3					3

3. Individual study/learning hours expected for students per week.	9-12

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

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 targeted learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each course learning outcomes, assessment method, and teaching strategy should fit in together with the rest to form an integrated learning and teaching process. (Courses are not required to include learning outcomes from each domain.)

Curriculum Map

Code #	NQF Learning Domains And Course Learning Outcomes	Course Teaching Strategies	Course Assessment Methods
1.0	**Knowledge**		
1.1	An ability to recognize the use of Artificial Intelligence in solving real life problems	Discussion with advisor	Seminar Presentation
1.2	An ability to identify current techniques, skills, and tools necessary for the development of computer-based systems	Discussion with advisor	Seminar Presentation
2.0	**Cognitive Skills**		
2.1	Design, implement and evaluate Artificial Intelligence related system, process, component, or program to meet desired needs.	Discussion with advisor	Seminar Presentation
2.2	Investigate real world problems in the context of Artificial Intelligence and design innovative solutions	Discussion with advisor	Seminar Presentation
3.0	**Interpersonal Skills & Responsibility**		
3.1	Demonstrate own learning and professional development	Discussion with advisor	Seminar Presentation
3.2	Work effectively in groups to accomplish a common goal and show leadership qualities	Discussion with advisor	Seminar Presentation
3.3	Act ethically and responsibly with high moral standards	Discussion with advisor	Seminar Presentation
4.0	**Communication, Information Technology, Numerical**		
4.1	Ability to communicate clearly in oral and written form with range of audiences	Discussion with advisor	Seminar Presentation
4.2	Use of latest information technologies	Discussion with advisor	Seminar Presentation

4.3	Demonstrate the ability to use mathematical and statistical techniques in the design and analysis of intelligent systems	Discussion with advisor	Seminar Presentation
5.0	**Psychomotor (if any)**		
5.1	Ability to operate and construct necessary tools required for computing system	Discussion with advisor	Seminar Presentation

5. Assessment Task Schedule 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	Presentation of Independent Studies	14	100%

D. Student Academic Counseling and Support

1. Arrangements for availability of faculty and teaching staff for individual student consultations and academic counseling. (include the time teaching staff are expected to be available per week)
iii. Office Hours for student counseling and support – Three hours/week
iv. Availability of teaching Staff on e-learning resources like uqu20/Piazza

E Learning Resources

1. List Required Textbooks
iv. Decided by advisor
2. List Essential References Materials (Journals, Reports, etc.)
ii. Recent Papers in Artificial Intelligence research
3. List Electronic Materials, Web Sites, Facebook, Twitter, etc.
iii. The IEEE Computer Society https://www.computer.org/ iv. Association for Computing Machinery https://www.acm.org/
4. Other learning material such as computer-based programs/CD, professional standards or regulations and software.
ii. Decided by advisor

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.)
iii. Seminar room iv. lab (if needed)
2. Technology resources (AV, data show, Smart Board, software, etc.)
iv. Whiteboard v. Internet connection
3. Other resources (specify, e.g. if specific laboratory equipment is required, list requirements or attach list)

G Course Evaluation and Improvement Procedures

1. Strategies for Obtaining Student's Feedback on Effectiveness of Teaching ii. At the end of semester, course evaluation forms will be filled by the students electronically or on paper. The evaluation forms will be anonymous.
2. Other Strategies for Evaluation of Teaching by the Instructor or the Department

iii.   Course file of the course will be maintained and evaluated by some senior faculty member.   iv.   Instructor evaluation is performed for every semester
3. Procedures for Teaching Development   ii.   Constant reading of new books and research papers, attending related conferences and workshops, participation in the research groups and blogs etc.
4. Procedures for Verifying Standards of Student's Achievement (e.g. check marking by an independent member teaching staff of a sample of student's work, periodic exchange and remarking of tests or a sample of assignments with staff members at another institution)   iii.   A random sample from the marked papers may be evaluated by an independent senior faculty member.   iv.   Departmental quality assurance committee can review the students grades and course files to make sure that high standard of teaching is maintained.
5. Describe the planning arrangements for periodically reviewing course effectiveness and planning for developing it.   iii.   Department has curriculum committee that periodically review courses.   iv.   Faculty council review offer program as per need.

Name of Course Instructor: Dr. Murtaza Ali Khan

Signature: *Murtaza Ali Khan* **Date Completed:** Oct. 22, 2018

Program Coordinator: _____

Signature: _____   **Date Received:** _____