



King Hussein School كلية  
of Computing الملك الحسين  
Sciences لعلم الحوسبة

# جامعة الأميرة سمية للتكنولوجيا كلية الملك الحسين لعلم الحوسبة

برنامج الدكتوراه في علم الحاسوب  
– الخطة الدراسية English

**2016–2015**

## Curriculum for the Ph.D. in Computer Science 2015/2016

### a- Mandatory Requirements (21 Credit Hours):

Course Number	Course Title	Credit Hours	Prerequisite
11911	Scientific Research Methodology	2	-
11912	Research Seminar	1	-
11921	Design and Analysis of Algorithms	3	-
11932	Computer and Network Security	3	-
11941	Advanced Database Systems	3	-
11942	Artificial Intelligence	3	-
11944	Knowledge Discovery and Data Mining	3	-
11951	Advanced Software Engineering	3	-
<b>Total</b>		<b>21</b>	

### b- Elective Courses (15 Credit Hours):

Course Number	Course Title	Credit Hours	Prerequisite
11913	Statistics and Probabilities for Computing Science	3	-
11914	Advanced Methods in Numerical Analysis	3	-
11922	Theory of Computation	3	-
11923	Programming Language and Compiler Design	3	-
11924	Cryptography	3	-
11926	Graph Theory and Applications	3	-
11931	Distributed Systems	3	-
11933	Advanced Computer Architecture	3	-
11934	Advanced Computer Networks	3	-
11935	Mobile Computing	3	-
11936	Cloud Computing	3	-
11943	Information Retrieval	3	
11945	Natural Language Processing	3	-
11946	Machine Learning	3	-
11947	Big Data Science	3	
11948	Statistical Methods for NLP	3	-
11952	Software System Architecture	3	-
11961	Advanced Digital Image Processing	3	-
11962	Computer Graphics	3	-
11963	Human Computer Interaction	3	-
11971	Selected Topics in Computer Science	3	-

11972	Selected Topics in Computer and Network security	3	-
11973	Independent Study	3	-

**c- Qualifying Exam (0 hour)**

<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Prerequisite</b>
11998	Qualification Exam	0	Passing the 21 Credit hours of mandatory courses

**d- Doctoral Dissertation Research ( 18 Credit Hours)**

<b>Course Number</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Prerequisite</b>
11999	Thesis	18	11998