

AGENDA

FOR

9th MEETING OF THE DEPARTMENTAL COUNCIL

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY
(CS & IT),**

**MIRPUR UNIVERSITY OF SCIENCE AND TECHNOLOGY (MUST), MIRPUR
AZAD KASHMIR**

**The 9th Meeting of the Departmental Council in the Department of Computer Science &
Information Technology held on 30-08-2021 at 11:00 a.m. with the following items and subjects.**

TABLE OF CONTENTS

Item No.	Subject	Page No.
Item No. 1	Approval for amendment in scheme of study of BSCS program approved in 7th meeting of Board of study held on 6 th of June 2016.	3
Item No. 2	Approval for amendments in scheme of study of BSIT program approved in 7th meeting of Board of study held on 6 th of June 2016.	4
Item No. 3	Approval for amendments in scheme of study of BSIT program approved in 8th meeting of Board of study held on 2nd of September 2020.	6
Item No. 4	Approval for amendments in scheme of study of MSCS program approved in 8th meeting of Board of study held on 2nd of September 2020.	7
Item No. 5	Discussion on Exit Program after 2 years of study under BSCS and BSIT	9

**Department of Computer Science & Information Technology
(CS&IT),
Mirpur University of Science & Technology (MUST), Mirpur-
10250 (AJ&K)**

Item No. 1

**Approval for amendment in scheme of study of
BSCS program approved in 7th meeting of Board of
study held on 6th of June 2016**

As per university rules, credit hours in each semester should be 15 or more. Thus, the following amendment in the 8th semester of the **BSCS** scheme of study is proposed.

Sr. No	Amendment	Affected Sessions
1	Credit hour of Professional Practices course offered in 8 th semester are increased from 2 to 3	2018-22 2019-23 2020-24

Semester-8

Code	Pre-Req	Title	Lec. Hrs	Lab. Hrs	Credit Hours
BCS-4801		Information Security	3	0	3
BCS-4802		Software Project Management	3	0	3
BCS-4803		Professional Practices	3	0	3
BCS-4804		Final Year Project (2)	0	0	6
BCS-4805		Oral Comprehensive Examination	-	-	S/U
BCS-4806		Internship/ Practical Training	-	-	S/U
		Total:			15

Item No. 2

Approval for amendments in scheme of study of BSIT program approved in 7th meeting of Board of study held on 6th of June 2016

As per university rules, credit hours in each semester should be 15 or more. Thus, the following amendments in the 8th semester of the BSIT scheme of study are proposed.

Sr. No	Amendment	Affected Sessions
1	Credit hour of Professional Practices course offered in 8 th semester are increased from 2 to 3	2018-22 2019-23
2	Semantic Web course of 3 credit hours is added in 8 th semester	2020-24

Semester-8

Code	Pre-Req	Title	Lec. Hrs	Lab. Hrs	Credit Hours
BIT-4801	-	System Integration & Architecture	3	0	3
BIT-4802	-	Professional Practices	3	0	3
BIT-4803	-	Capstone Project Part 2	-	-	6
BIT-4804		Semantic Web	3	0	3
BIT-4805	-	Oral Comprehensive Examination	-	-	S/U
BIT-4806	-	Internship/ Practical Training	-	-	S/U
		Total:			15

Course Outline: Semantic Web

Credit Hours: 3

Course Content: Introduction to the semantic web, introduction to ontologies, ontology languages for the semantic web, Resource Description Framework (RDF), lightweight ontologies: RDF Schema, Web Ontology Language (OWL), query language for RDF: SPARQL, Ontology Engineering, Semantic web and Web 2.0 and applications of Semantic Web.

Reference Material:

- Build Flexible Applications with Graph Data, Toby Segaran, Colin Evans, Jamie Taylor, 302 pages O'Reilly Media, 2009
- Foundations of Semantic Web Technologies, Pascal Hitzler, Markus Krotzsch, Sebastian Rudolph,
- Introduction to the Semantic Web and Semantic Web Services, Liyang Yu, Chapman and Hall/CRC, 2007

Item No. 3

**Approval for amendments in scheme of study of
BSIT program approved in 8th meeting of Board of
study held on 2nd of September 2020**

Sr. No	Amendment	Affected Sessions
1	Semantic Web course of 3 credit hour is added in 6 th semester	2021-25 and onward

Semester-6

Code	Pre-Req	Title	Lec. Hrs	Lab. Hrs	Credit Hours
BIT-3601		Web Technologies	3	0	3
BIT-3602		Semantic Web	3	0	3
BIT-3603		Human Computer Interaction	3	0	3
BIT-3604		IT Infrastructure	3	0	3
ENG-3607		Technical and Business Writing	3	0	3
		Total:	15	0	15

Item No. 4

<p>Approval for amendments in scheme of study of MSCS program approved in 8th meeting of Board of study held on 2nd of September 2020</p>
--

Sr. No	Amendment	Affected Sessions
1	<p>Knowledge Engineering and Semantic Web course of 3 credit hours have been added to the list of Elective courses for the MSCS program</p>	<p>2021-23 and onward</p>

Scheme of Studies for MS Computer Science

Code	Course Title	Cr. Hrs
Core Courses		
CS-5101	Advanced Analysis of Algorithms	3
CS-5102	Advanced Theory of Automata	3
CS-5105	Advanced Operating System	3
Cs-5107	Theory of programming Languages	3
Mandatory Courses		
CS-5103	Research Methodology	1
Elective Courses		
Computer Networks and Security		
CS-5104	Advanced Network Programming	3
CS-5105	Advanced Computer Networks	3
CS-5106	Introduction to Cryptography and Security Mechanisms	3
CS-5107	Advanced Wireless Networks	3
CS-5201	Advanced Network Security	3
CS-5202	Network Performance Evaluation	3
CS-5203	Advanced Wireless and Mobile Computing Networks	3
CS-5204	Autonomous Computing	3
Artificial Intelligence		
CS-5108	Design of Intelligent Systems	3
CS-5109	Decision Support Systems	3
CS-5205	Machine Learning	3

CS-5206	Advanced Neural Networks	3
CS-5207	Natural Language Processing	3
CS-5208	Agents	3
CS-5209	Robotics	3
CS-5210	Pattern Recognition	3
CS-5211	Computational Intelligence	3
Software Engineering		
CS-5110	Advanced Software Engineering	3
CS-5111	Advanced Software Project Management	3
CS-5212	Object-Oriented Software Engineering	3
CS-5213	Software Quality Assurance and Testing	3
CS-5214	Software Requirements Engineering	3
CS-5215	Software Architectures	3
CS-5216	Software Patterns	3
Digital Signal and Image Processing / Computer Vision		
CS-5112	Advanced Digital Image Processing	3
CS-5113	Advanced Digital Signal Processing	3
CS-5114	Computer Vision	3
CS-5217	Digital Watermarking and Steganography	3
CS-5218	Multi-view Geometry	3
CS-5219	3D Computer Vision	3
CS-5220	Multispectral Image Processing	3
Other Elective Courses		
CS-5115	Advanced Computer Architecture	3
CS-5116	Advanced Operating System	3
CS-5117	Knowledge Engineering and Semantic Web	3
Thesis		
CS-6101	MS Thesis	6

*Apart from this list, a student may also register in a course with a Ph.D. class with the consent of his/her supervisor.

Course Outline

Knowledge Engineering and Semantic Web

Credit Hours: 3

Course Content: Semantic Web Vision, Knowledge Engineering and Semantic Web, Resource Description Framework (RDF), RDF Schema, RDF Formal Syntax and RDF Schema, Ontology Web Language (OWL), SPARQL Query Language, SPARQL and Entailment Regimes, Applications Modeling in RDF, RDFs, and OWL and SPARQL, Applications of Semantic Web

Text Books:

- Grigoris Antoniou, Frank Van Harmelen, A Semantic Web Primer, MIT Press, 2008.
- Renzo Angles, Claudio Gutierrez: An Introduction to Graph Data Management. Graph Data Management 2018: 1-32
- Marcelo Arenas, Claudio Gutiérrez, Jorge Pérez: Foundations of RDF Databases. Reasoning Web 2009: 158-204
- Build Flexible Applications with Graph Data, Toby Segaran, Colin Evans, Jamie Taylor, 302 pages O'Reilly Media, 2009
- Foundations of Semantic Web Technologies, Pascal Hitzler, Markus Krotzsch, Sebastian Rudolph,

Item No. 5

Discussion on Exit Program after 2 years of study under BSCS and BSIT

Discussion on Exit program after two years of study is done and the case is forwarded to Academic Council for guidance.