

## GRADUATION CHECKLIST

To graduate, students must pass all the stated courses in this checklist. It is the responsibility of the students to ensure that all courses are taken and passed. Students who do not complete any of the course are not allowed to graduate.

NO.	CODE	COURSE	CREDIT EARNED (JKD)	CREDIT COUNTED (JKK)	TICK (✓) IF PASSED
<b>COMPUTER SCIENCE COURSES</b>					
<b>CORE COURSES (74 CREDITS)</b>					
1	SECI1013	Discrete Structure	3	3	
2	SECJ1013	Programming Technique I	3	3	
3	SECR1013	Digital Logic	3	3	
4	SCSP1513	Technology & Information System	3	3	
5	SECI1113	Computational Mathematics	3	3	
6	SCSI1143	Probability & Statistical Data Analysis	3	3	
7	SECJ1023	Programming Technique II	3	3	
8	SECR1033	Computer Organisation and Architecture	3	3	
9	SECD2523	Database	3	3	
10	SECD2613	System Analysis and Design	3	3	
11	SECJ2013	Data Structure and Algorithm	3	3	
12	SECR2213	Network Communications	3	3	
13	SECV2113	Human Computer Interaction	3	3	
14	SECJ2203	Software Engineering	3	3	
15	SECV2223	Web Programming	3	3	
16	SECR2043	Operating Systems	3	3	
17	SECJ2154	Object Oriented Programming	4	4	
18	SECB3032	Bioinformatic Project I	2	2	
19	SECJ3203	Theory of Computer Science	3	3	
20	SECB4118	Industrial Training	8	HL	
21	SECB4114	Industrial Training Report	4	4	
22	SECB4134	Bioinformatic Project II	4	4	
23	SECD3761	Technopreneurship Seminar	1	1	
<b>ELECTIVES COURSES (34 CREDITS) – Choose SECJ3104 and 10 other elective courses from the following list (which can include up to maximum of 4 PRISMS courses, for qualified students)</b>					
<b>SECB ELECTIVES COURSES</b>					
24	SECB3103	Bioinformatics I	3	3	
25	SECB3032	Bioinformatics II	3	3	
27	SECB3203	Programming for Bioinformatics	3	3	
28	SECB3213	Bioinformatic Database	3	3	
29	SECB3133	Computational Biology I	3	3	
30	SECB3223	Computational Biology II	3	3	
31	SECB4243	Special Topic in Bioinformatics	3	3	
32	SECB4213	Bioinformatics Visualization	3	3	

33	SECB4313	Bioinformatics Modeling and Simulation	3	3	
34	SECJ3104	Applications Development	4	4	
35	SECJ3553	Artificial Intelligence	3	3	
36	SECJ3303	Internet Programming	3	3	
37	SEBB4173	Cellular and Molecular Biology for Bioinformatics	3	3	
38	SEBB4203	Proteins Biomolecules	3	3	
39	SEBB4193	Gene and Protein Technology	3	3	
<b>PRISMS ELECTIVES COURSES* for PRISMS students only</b>					
40	SECR5013	Cryptographic Engineering	3	3	
41	SECR5023	Digital Forensics	3	3	
42	SECR5033	Information Security Governance and Risk Management	3	3	
43	SECR5043	Cloud Computing Security	3	3	
44	SECJ5013	Secure Software Engineering	3	3	
45	SECR5053	Penetration Testing	3	3	
46	SECJ5023	Advanced Theory of Computer Science	3	3	
47	SECJ5033	Advanced Data Structure and Algorithms	3	3	
48	SECJ5043	Advanced Artificial Intelligence	3	3	
49	SECP5013	Advanced Analytics for Data Science	3	3	
50	SECP5023	Big Data Management	3	3	
51	SECP5033	Business Intelligence and Analytics	3	3	
52	SECP5043	Data Science Governance	3	3	
53	SECP5053	Massive Mining and Streaming	3	3	
54	SECP5063	Statistics for Data Science	3	3	
<b>TOTAL CREDIT OF COMPUTER SCIENCE COURSES (a)</b>			<b>108</b>	<b>100</b>	
<b>UNIVERSITY GENERAL COURSES</b>					
<b>Cluster 1: Appreciation of Philosophy, Value and History (Faculty of Social Sciences and Humanities)</b>					
For Malaysian Students					
1	UHS1022	Falsafah dan Isu Semasa	2	2	
2	UHMS1182	Penghayatan Etika dan Peradaban	2	2	
For International Students					
1	UHS1022	Falsafah dan Isu Semasa	2	2	
	UHMS1182	Penghayatan Etika dan Peradaban			
2	UHLM1012	Malaysia Language for Communication	2	2	
<b>Cluster 2: Generic Skills</b>					
1	UBSS1032	Introduction to Entrepreneurship	2	2	
2	UHMT1012	Graduate Success Attributes	2	2	
<b>Cluster 3: Knowledge Enhancement</b>					
1	UHIT2302	The Thought of Science and Technology	2	2	

<b>Cluster 4: Co-Curriculum and Service Learning</b>					
1	UKQF2xx2	Service-Learning Co-curriculum Elective	2	2	
2	UKQT3001	Extracurricular Experiential Learning	1	1	
<b>Cluster 5: Language Skills (Language Academy, Faculty of Social Sciences and Humanities)</b>					
1	UHLB1122	English Communication Skills	2	2	
2	UHLB2122	Academic Communication Skills	2	2	
3	UHLB3132	Professional Communication Skills	2	2	
4	UHLx1112	Foreign Language Elective	2	2	
<b>Other University Electives</b>					
1	Uxxx2xx2	Any 1 course from Cluster 2 or Cluster 3	2	2	
<b>TOTAL CREDIT of UNIVERSITY GENERAL COURSES (c)</b>			23	23	
<b>TOTAL CREDIT TO GRADUATE (a + b + c)</b>			131	123	

<b>OTHER COMPULSORY COURSES – PROFESSIONAL SKILLS CERTIFICATE (PSC)</b>					
<b>Students are required to enrol and pass FIVE (5) PSC courses, to be eligible to graduate. Enrol the PSC courses as follows:</b>					
<b>COMPULSORY PSC COURSES (Enrol All 3 Courses)</b>					
1	GLRB0010	Design Thinking for Entrepreneur			
2	GLRM0010	Talent and Competency Management			
3	GLRL0010	English Communication Skills for Graduating Students (ECS)			
<b>ELECTIVE PSC COURSES (Choose Any 2 Courses only)</b>					
1	GLRT0010	Data Analytics for Organization			
2	GLRM0020	Professional Ethics and Integrity			
3	GLRT0020	Construction Measurement (Mechanical & Electrical)			
4	GLRT0030	OSHE for Engineering Industry and Laboratory			
5	GLRT0040	OSHE for Construction Industry and Laboratory Works			
6	GLRT0050	Quality Management for Build Environment and Engineering Professionals			
7	GLRT0060	Safety and Health Officer Introductory Course			
8	GLRT0070	Industrial Machinery and Lubrication			
Or any other elective PSC courses offered by UTM iLeague. Information on PSC Courses: <a href="https://ileague.utm.my/utm-professional-skills-certificate-utm-psc/">https://ileague.utm.my/utm-professional-skills-certificate-utm-psc/</a> Online PSC Registration: <a href="https://elearnpsc.utmspace.edu.my/">https://elearnpsc.utmspace.edu.my/</a>					