



Programme Guide for Undergraduate Taught Programmes Mathematical and Computing Sciences– Dubai Campus

Academic Year 202324

[Academic Year Calendar for 202324](#)

[Students are encouraged to check the Academic Calendar and be familiarise with the dates]

Undergraduate Taught Programme Guide – September Intake

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Undergraduate Taught Programme Guide – September Intake

BSc Computer Science (Cyber Security)

Programme Name	: BSc Computer Science (Cyber Security)				
Programme Code	: F2C3-CCS				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Mr. Talal Shaikh	t.a.g.shaikh@hw.ac.uk			
Year 1 Coordinator	Dr Adrian Turcanu	a.turcanu@hw.ac.uk			
Year 2 Coordinator	Mr. Kayvan Karim	k.karim@hw.ac.uk			
Year 3 Coordinator	Mr. Md Azher Uddin	m.uddin@hw.ac.uk			
Year 4 Coordinator	Dr Hani Ragab Hassen	h.ragabhassen@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 4 Mandatory Courses					
F27PX	Praxis	Mandatory	1	September	Sept 2023 To Dec 2023
F27SA	Software Development 1	Mandatory	1	September	
F27ID	Introduction to Interaction Design	Mandatory	1	September	
F17LP	Logic and Proof	Mandatory	1	September	
January Semester – 4 Mandatory Courses					
F27CS	Introduction to Computer Systems	Mandatory	1	January	Jan 2024 To Apr 2024
F27WD	Web Design and Databases	Mandatory	1	January	
F17SC	Discrete Mathematics	Mandatory	1	January	
F27SB	Software Development 2	Mandatory	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 4 Mandatory Courses					
F28ED	Experimental Design	Mandatory	2	September	Sept 2023 To Dec 2023
F28PL	Programming Languages	Mandatory	2	September	
F28WP	Web Programming	Mandatory	2	September	
F28SG	Introduction to Data Structures & Algorithms	Mandatory	2	September	
January Semester – 4 Mandatory Courses					
F28DM	Database Management Systems	Mandatory	2	January	Jan 2024 To Apr 2024
F28DA	Data Structures and Algorithms	Mandatory	2	January	
F28HS	Hardware-Software Interface	Mandatory	2	January	
F28SD	Introduction to Software & Algorithms	Mandatory	2	January	
Year 3					
September Semester – 4 Mandatory Courses					
F29AI	Artificial Intelligence and Intelligent Agents	Mandatory	3	September	Sept 2023 To Dec 2023
F29DC	Data Comms and Networking	Mandatory	3	September	
F29FA	Foundations 1	Mandatory	3	September	
F29SO	Software Engineering	Mandatory	3	September	

Undergraduate Taught Programme Guide – September Intake

January Semester – 4 Mandatory Courses					
F29FB	Foundations 2	Mandatory	3	January	Jan 2024 To Apr 2024
F29OC	Operating Systems & Concurrency	Mandatory	3	January	
F29PD	Professional Development	Mandatory	3	January	
F29LP	Language Processors	Mandatory	3	January	
Year 4					
September Semester – 2 Mandatory and 2 Optional Courses					
F20PA	Research Methods & Requirements Engineering	Mandatory	4	September	Sept 2023 To Dec 2023
F20CN	Computer Network Security	Mandatory	4	September	
F20SA	Statistical Modelling & Analysis	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
F20BC	Biologically Inspired Computation	Optional	4	September	
F20GA	3D Graphics and Animation	Optional	4	September	
F20IF	Information System Methodologies	Optional	4	September	
F20RS	Rigorous Methods for Software Engineering	Optional	4	September	
F20RO	Intelligent Robotics	Optional	4	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F20AN	Advanced Network Security	Mandatory	4	January	Jan 2024 To Apr 2024
F20PF	Design Implementation (Cyber Security)	Mandatory	4	January	
F20PG	Project Testing Implementation (Cyber Security)	Mandatory	4	January	
F20FO	Digital Forensics	Optional	4	January	
F20BD	Big Data Management	Optional	4	January	
F20AD	Advanced Interaction Design	Optional	4	January	
F20EC	E-Commerce Technology	Optional	4	January	
F20GP	Computer Games Programming	Optional	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	
F20AA	Applied text Analytics	Optional	4	January	

Undergraduate Taught Programme Guide – September Intake

BSc Computer Science (Artificial Intelligence)

Programme Name	: BSc Computer Science (Artificial Intelligence)				
Programme Code	: F2P1-CSA				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Mr. Talal Shaikh	t.a.g.shaikh@hw.ac.uk			
Year 1 Coordinator	Dr Adrian Turcanu	a.turcanu@hw.ac.uk			
Year 2 Coordinator	Mr. Kayvan Karim	k.karim@hw.ac.uk			
Year 3 Coordinator	Mr. Md Azher Uddin	m.uddin@hw.ac.uk			
Year 4 Coordinator	Dr Hani Ragab Hassen	h.ragabhassen@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 4 Mandatory Courses					
F17LP	Logic & Proof	Mandatory	1	September	Sept 2023 To Dec 2023
F27PX	Praxis	Mandatory	1	September	
F27SA	Software Development 1	Mandatory	1	September	
F27ID	Intro to Interaction Design	Mandatory	1	September	
January Semester – 4 Mandatory Courses					
F27CS	Intro to Computer Systems	Mandatory	1	January	Jan 2024 To Apr 2024
F27SB	Software Development 2	Mandatory	1	January	
F27WD	Web Design & Databases	Mandatory	1	January	
F17SC	Discrete Mathematics	Mandatory	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 4 Mandatory Courses					
F28PL	Programming Languages	Mandatory	2	September	Sept 2023 To Dec 2023
F28WP	Web Programming	Mandatory	2	September	
F28ED	Experimental Design	Mandatory	2	September	
F28SG	Introduction to Data Structures & Algorithms	Mandatory	2	September	
January Semester – 4 Mandatory Courses					
F28DA	Data Structures & Algorithms	Mandatory	2	January	Jan 2024 To Apr 2024
F28DM	Database Management Systems	Mandatory	2	January	
F28HS	Hardware-Software Interface	Mandatory	2	January	
F28SD	Introduction to Software Engineering	Mandatory	2	January	
Year 3					
September Semester – 4 Mandatory Courses					
F29AI	Artificial Intelligence & Intelligent Agents	Mandatory	3	September	Sept 2023 To Dec 2023
F29DC	Data Communications & Networking	Mandatory	3	September	
F29FA	Foundations 1	Mandatory	3	September	
F29SO	Software Engineering	Mandatory	3	September	

Undergraduate Taught Programme Guide – September Intake

January Semester – 4 Mandatory Courses					
F29FB	Foundations 2	Mandatory	3	January	Jan 2024 To Apr 2024
F29LP	Language Processors	Mandatory	3	January	
F29OC	Operating Systems & Concurrency	Mandatory	3	January	
F29PD	Professional Development	Mandatory	3	January	
Year 4					
September Semester – 1 Mandatory and 3 Optional Course(s)					
F20PA	Research methods & Requirements Engineering	Mandatory	4	September	Sept 2023 To Dec 2023
F20SA	Stat Model & Anal	Optional	4	September	
F20RO	Intelligent Robotics	Optional	4	September	
F20CN	Computer Network Security	Optional	4	September	
F20IF	Information Sys Methodologies	Optional	4	September	
F20RS	Rigorous Methods for Soft Engineering	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
F20GA	3D Graphics and Animation	Optional	4	September	
F20BC	Biologically Inspired Computation	Optional	4	September	
F20DL	Data Mining & Machine Learning	Optional	4	September	
January Semester – 2 Mandatory and 2 Optional Courses					
F20PB	Design & Implementation	Mandatory	4	January	Jan 2024 To Apr 2024
F20PC	Project Testing & Presentation	Mandatory	4	January	
F20AA	Applied Text Analytics	Optional	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	
F20GP	Computer Games Programming	Optional	4	January	
F20AD	Advanced Interaction Design	Optional	4	January	
F20BD	Big Data Management	Optional	4	January	
F20EC	E-Commerce Technology	Optional	4	January	
F20AN	Advanced Network Security	Optional	4	January	
F20FO	Digital Forensics	Optional	4	January	

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BSc Computer Science (Data Science)

Programme Name	: BSc Computer Science (Data Science)				
Programme Code	: F2D3-CDS				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Mr. Talal Shaikh	t.a.g.shaikh@hw.ac.uk			
Year 1 Coordinator	Dr Adrian Turcanu	a.turcanu@hw.ac.uk			
Year 2 Coordinator	Mr. Kayvan Karim	k.karim@hw.ac.uk			
Year 3 Coordinator	Mr. Md Azher Uddin	m.uddin@hw.ac.uk			
Year 4 Coordinator	Dr Hani Ragab Hassen	h.ragabhassen@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 4 Mandatory Courses					
F17LP	Logic & Proof	Mandatory	1	September	Sept 2023 To Dec 2023
F27PX	Praxis	Mandatory	1	September	
F27SA	Software Development 1	Mandatory	1	September	
F27ID	Introduction to Interaction Design	Mandatory	1	September	
January Semester – 4 Mandatory Courses					
F27CS	Introduction to Computer Systems	Mandatory	1	January	Jan 2024 To Apr 2024
F27SB	Software Development 2	Mandatory	1	January	
F27WD	Web Design & Databases	Mandatory	1	January	
F17SC	Discrete Mathematics	Mandatory	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 4 Mandatory Courses					
F28PL	Programming Languages	Mandatory	2	September	Sept 2023 To Dec 2023
F28WP	Web Programming	Mandatory	2	September	
F28ED	Experimental Design	Mandatory	2	September	
F28SG	Introduction to Data Structures & Algorithms	Mandatory	2	September	
January Semester – 4 Mandatory Courses					
F28DA	Data Structures & Algorithms	Mandatory	2	January	Jan 2024 To Apr 2024
F28DM	Database Management Systems	Mandatory	2	January	
F28HS	Hardware-Software Interface	Mandatory	2	January	
F28SD	Introduction to Software Engineering	Mandatory	2	January	
Year 3					
September Semester – 4 Mandatory Courses					
F29AI	Artificial Intelligence & Intelligent Agents	Mandatory	3	September	Sept 2023 To Dec 2023
F29DC	Data Communications & Networking	Mandatory	3	September	
F29FA	Foundations 1	Mandatory	3	September	
F29SO	Software Engineering	Mandatory	3	September	

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January Semester – 4 Mandatory Courses					
F29FB	Foundations 2	Mandatory	3	January	Jan 2024 To Apr 2024
F29LP	Language Processors	Mandatory	3	January	
F29OC	Operating Systems & Concurrency	Mandatory	3	January	
F29PD	Professional Development	Mandatory	3	January	
Year 4					
September Semester – 3 Mandatory and 1 Optional Course(s)					
F20SA	Statistical Modelling & Analysis	Mandatory	4	September	Sept 2023 To Dec 2023
F20PA	Research Methods & Requirements Engineering	Mandatory	4	September	
F20DL	Data Mining & Machine Learning	Mandatory	4	September	
F20RO	Intelligent Robotics	Optional	4	September	
F20CN	Computer Network Security	Optional	4	September	
F20IF	Information Systems Methodologies	Optional	4	September	
F20RS	Rigorous Methods for Software Engineering	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
F20GA	3D Graphics & Animation	Optional	4	September	
F20BC	Biologically Inspired Computation	Optional	4	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F20BD	Big Data Management	Mandatory	4	January	Jan 2024 To Apr 2024
F20PE	Project Testing & Implementation (Data Science)	Mandatory	4	January	
F20PD	Design Implement (Data Science)	Mandatory	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	
F20FO	Digital Forensics	Optional	4	January	
F20AA	Applied Text Analytics	Optional	4	January	
F20GP	Computer Games Programming	Optional	4	January	
F20AD	Advanced Interaction Design	Optional	4	January	
F20EC	E-Commerce Technology	Optional	4	January	
F20AN	Advanced Network Security	Optional	4	January	

Undergraduate Taught Programme Guide – September Intake

BSc Computer Science (Software Engineering)

Programme Name	: BSc Computer Science (Software Engineering)				
Programme Code	: F2J1-CSE				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Mr. Talal Shaikh	t.a.g.shaikh@hw.ac.uk			
Year 1 Coordinator	Dr Adrian Turcanu	a.turcanu@hw.ac.uk			
Year 2 Coordinator	Mr. Kayvan Karim	k.karim@hw.ac.uk			
Year 3 Coordinator	Mr. Md Azher Uddin	m.uddin@hw.ac.uk			
Year 4 Coordinator	Dr Hani Ragab Hassen	h.ragabhassen@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 4 Mandatory Courses					
F17LP	Logic & Proof	Mandatory	1	September	Sept 2023 To Dec 2023
F27PX	Praxis	Mandatory	1	September	
F27SA	Software Development 1	Mandatory	1	September	
F27ID	Introduction to Interaction Design	Mandatory	1	September	
January Semester – 4 Mandatory Courses					
F27CS	Introduction to Computer Systems	Mandatory	1	January	Jan 2024 To Apr 2024
F27SB	Software Development 2	Mandatory	1	January	
F27WD	Web Design & Databases	Mandatory	1	January	
F17SC	Discrete Mathematics	Mandatory	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 4 Mandatory Courses					
F28PL	Programming Languages	Mandatory	2	September	Sept 2023 To Dec 2023
F28WP	Web Programming	Mandatory	2	September	
F28ED	Experimental Design	Mandatory	2	September	
F28SG	Introduction to Data Structures & Algorithms	Mandatory	2	September	
January Semester – 4 Mandatory Courses					
F28DA	Data Structures & Algorithms	Mandatory	2	January	Jan 2024 To Apr 2024
F28DM	Database Management Systems	Mandatory	2	January	
F28HS	Hardware-Software Interface	Mandatory	2	January	
F28SD	Introduction to Software Engineering	Mandatory	2	January	
Year 3					
September Semester – 4 Mandatory Courses					
F29AI	Artificial Intelligence & Intelligent Agents	Mandatory	3	September	Sept 2023 To Dec 2023
F29DC	Data Communications & Networking	Mandatory	3	September	
F29FA	Foundations 1	Mandatory	3	September	
F29SO	Software Engineering	Mandatory	3	September	

Undergraduate Taught Programme Guide – September Intake

January Semester – 4 Mandatory Courses					
F29FB	Foundations 2	Mandatory	3	January	Jan 2024 To Apr 2024
F29LP	Language Processors	Mandatory	3	January	
F29OC	Operating Sys & Concurrency	Mandatory	3	January	
F29PD	Professional Development	Mandatory	3	January	
Year 4					
September Semester – 2 Mandatory and 2 Optional Courses					
F20RS	Rigorous Methods for Software Engineering	Mandatory	4	September	Sept 2023 To Dec 2023
F20PA	Research Methods & Requirements Engineering	Mandatory	4	September	
F20SA	Statistical Modelling & Analysis	Optional	4	September	
F20DL	Data Mining & Machine Learning	Optional	4	September	
F20BC	Biologically Inspired Computation	Optional	4	September	
F20GA	3D Graphics & Animation	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
F20IF	Information Systems Methodologies	Optional	4	September	
F20CN	Computer Network Security	Optional	4	September	
F20RO	Intelligent Robotics	Optional	4	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F20AD	Advanced Interaction Design	Mandatory	4	January	Jan 2024 To May 2024
F20PB	Design & Implementation	Mandatory	4	January	
F20PC	Project Testing & Presentation	Mandatory	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	
F20GP	Computer Games Programming	Optional	4	January	
F20BD	Big Data Management	Optional	4	January	
F20EC	E-Commerce Technology	Optional	4	January	
F20AN	Advanced Network Security	Optional	4	January	
F20AA	Applied Text Analytics	Optional	4	January	
F20FO	Digital Forensics	Optional	4	January	

Undergraduate Taught Programme Guide – September Intake

BSc Computer Science (Computer Games Programming)

Programme Name	: BSc Computer Science (Computer Games Programming)				
Programme Code	: F2C1-GCP				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Mr. Talal Shaikh	t.a.g.shaikh@hw.ac.uk			
Year 1 Coordinator	Dr Adrian Turcanu	a.turcanu@hw.ac.uk			
Year 2 Coordinator	Mr. Kayvan Karim	k.karim@hw.ac.uk			
Year 3 Coordinator	Mr. Md Azher Uddin	m.uddin@hw.ac.uk			
Year 4 Coordinator	Dr Hani Ragab Hassen	h.ragabhassen@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
Semester One – 4 Mandatory Courses					
F27PX	Praxis	Mandatory	1	September	Sept 2023 To Dec 2023
F27SA	Software Development 1	Mandatory	1	September	
F27ID	Introduction to Interaction Design	Mandatory	1	September	
F17LP	Logic & Proof	Mandatory	1	September	
Semester Two – 4 Mandatory Courses					
F27SB	Software Development 2	Mandatory	1	January	Jan 2024 to Apr 2024
F27WD	Web Design & Databases	Mandatory	1	January	
F27CS	Introduction to Computer Systems	Mandatory	1	January	
F17SC	Discrete Mathematics	Mandatory	1	January	
Direct Entry & Continuing Students					
Year 2					
Semester One – 4 Mandatory Courses					
F28PL	Programming Languages	Mandatory	2	September	Sept 2023 To Dec 2023
F28WP	Web Programming	Mandatory	2	September	
F28ED	Experimental Design	Mandatory	2	September	
F28SG	Intro Data Struct & Algorithms	Mandatory	2	September	
Semester Two – 4 Mandatory Courses					
F28DA	Data Structures & Algorithms	Mandatory	2	January	Jan 2024 to Apr 2024
F28DM	Database Management Systems	Mandatory	2	January	
F28SD	Introduction to Software Engineering	Mandatory	2	January	
F28HS	Hardware-Software Interface	Mandatory	2	January	
Year 3					
Semester One – 4 Mandatory Courses					
F29AI	Artificial Intelligence & Intelligent Agents	Mandatory	3	September	Sept 2023 To
F29DC	Data Communications & Networking	Mandatory	3	September	

Undergraduate Taught Programme Guide – September Intake

F29SO	Software Engineering	Mandatory	3	September	Dec 2023
F29FA	Foundations 1	Mandatory	3	September	
Semester Two – 4 Mandatory Courses					
F29FB	Foundations 2	Mandatory	3	January	Jan 2024 to Apr 2024
F29LP	Language Processors	Mandatory	3	January	
F29OC	Operating Systems & Concurrency	Mandatory	3	January	
F29PD	Professional Development	Mandatory	3	January	
Year 4					
Semester One – 2 Mandatory and 2 Optional Course(s)					
F20PA	Research Methods & Requirements Engineering	Mandatory	4	September	Sept 2023 To Dec 2023
F20GA	3D Graphics & Animation	Mandatory	4	September	
F20DL	Data Mining & Machine Learning	Optional	4	September	
F20BC	Biologically Inspired Computation	Optional	4	September	
F20SA	Statistical Modelling & Analysis	Optional	4	September	
F20RO	Intelligent Robotics	Optional	4	September	
F20CN	Computer Network Security	Optional	4	September	
F20IF	Information Systems Methodologies	Optional	4	September	
F20RS	Rigorous Methods for Software Engineering	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
Semester Two – 2 Mandatory and 1 Optional Course(s)					
F20PB	Design & Implementation	Mandatory	4	January	Jan 2024 to Apr 2024
F20PC	Project Testing & Presentation	Mandatory	4	January	
F20GP	Computer Games Programming	Mandatory	4	January	
F20AA	Applied Text Analytics	Optional	4	January	
F20FO	Digital Forensics	Optional	4	January	
F20AD	Advanced Human Computer Interaction	Optional	4	January	
F20BD	Big Data Management	Optional	4	January	
F20EC	E-Commerce Technology	Optional	4	January	
F20AN	Advanced Network Security	Optional	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	

Undergraduate Taught Programme Guide – September Intake

BSc Computer Science

Programme Name	: BSc Computer Science				
Programme Code	: F291-COS				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Mr. Talal Shaikh	t.a.g.shaikh@hw.ac.uk			
Year 1 Coordinator	Dr Adrian Turcanu	a.turcanu@hw.ac.uk			
Year 2 Coordinator	Mr. Kayvan Karim	k.karim@hw.ac.uk			
Year 3 Coordinator	Mr. Md Azher Uddin	m.uddin@hw.ac.uk			
Year 4 Coordinator	Dr Hani Ragab Hassen	h.ragabhassen@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 4 Mandatory Courses					
F17LP	Logic & Proof	Mandatory	1	September	Sept 2023 To Dec 2023
F27PX	Praxis	Mandatory	1	September	
F27SA	Software Development 1	Mandatory	1	September	
F27ID	Intro to Interaction Design	Mandatory	1	September	
January Semester – 4 Mandatory Courses					
F27CS	Intro to Computer Systems	Mandatory	1	January	Jan 2024 To May 2024
F27SB	Software Development 2	Mandatory	1	January	
F27WD	Web Design & Databases	Mandatory	1	January	
F17SC	Discrete Mathematics	Mandatory	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 4 Mandatory Courses					
F28PL	Programming Languages	Mandatory	2	September	Sept 2023 To Dec 2023
F28WP	Web Programming	Mandatory	2	September	
F28ED	Experimental Design	Mandatory	2	September	
F28SG	Introduction to Data Structures & Algorithms	Mandatory	2	September	
January Semester – 4 Mandatory Courses					
F28DA	Data Structures & Algorithms	Mandatory	2	January	Jan 2024 To May 2024
F28DM	Database Management Systems	Mandatory	2	January	
F28HS	Hardware-Software Interface	Mandatory	2	January	
F28SD	Introduction to Software Engineering	Mandatory	2	January	
Year 3					
September Semester – 4 Mandatory Courses					
F29AI	Artificial Intelligence & Intelligent Agents	Mandatory	3	September	Sept 2023 To Dec 2023
F29DC	Data Communications & Networking	Mandatory	3	September	
F29FA	Foundations 1	Mandatory	3	September	
F29SO	Software Engineering	Mandatory	3	September	

Undergraduate Taught Programme Guide – September Intake

January Semester – 4 Mandatory Courses					
F29FB	Foundations 2	Mandatory	3	January	Jan 2024 To May 2024
F29LP	Language Processors	Mandatory	3	January	
F29OC	Operating Systems & Concurrency	Mandatory	3	January	
F29PD	Professional Development	Mandatory	3	January	
Year 4					
September Semester – 1 Mandatory and 3 Optional Course(s)					
F20PA	Research Methods & Requirements Engineering	Mandatory	4	September	Sept 2023 To Dec 2023
F20SA	Statistical Modelling & Analysis	Optional	4	September	
F20RO	Intelligent Robotics	Optional	4	September	
F20CN	Computer Network Security	Optional	4	September	
F20IF	Information Systems Methodologies	Optional	4	September	
F20RS	Rigorous Methods for Software Engineering	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
F20GA	3D Graphics & Animation	Optional	4	September	
F20BC	Biologically Inspired Computation	Optional	4	September	
F20DL	Data Mining & Machine Learning	Optional	4	September	
January Semester – 2 Mandatory and 2 Optional Course(s)					
F20PB	Design & Implementation	Mandatory	4	January	Jan 2024 To May 2024
F20PC	Project Testing & Presentation	Mandatory	4	January	
F20FO	Digital Forensics	Optional	4	January	
F20AA	Applied Text Analytics	Optional	4	January	
F20GP	Computer Games Programming	Optional	4	January	
F20AD	Advanced Interaction Design	Optional	4	January	
F20BD	Big Data Management	Optional	4	January	
F20EC	E-Commerce Technology	Optional	4	January	
F20AN	Advanced Network Security	Optional	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	

Undergraduate Taught Programme Guide – September Intake

BSc Computer Systems (Computer Games Programming)

Programme Name	: BSc Computer Systems (Computer Games Programming)				
Programme Code	: F2C2-CGP				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name			Contact Email	
Programme Director	Mr. Md Azher Uddin			m.uddin@hw.ac.uk	
Year 1 Coordinator	Dr Adrian Turcanu			a.turcanu@hw.ac.uk	
Year 2 Coordinator	Mr. Kayvan Karim			k.karim@hw.ac.uk	
Year 3 Coordinator	Mr. Md Azher Uddin			m.uddin@hw.ac.uk	
Year 4 Coordinator	Dr Hani Ragab Hassen			h.ragabhassen@hw.ac.uk	
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 3 Mandatory and 1 Optional Course(s)					
F27PX	Praxis	Mandatory	1	September	Sept 2023 To Dec 2024
F27SA	Software Development 1	Mandatory	1	September	
F27ID	Introduction to Interaction Design	Mandatory	1	September	
F17LP	Logic & Proof	Optional	1	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F27SB	Software Development 2	Mandatory	1	January	Jan 2024 To May 2024
F27WD	Web Design & Databases	Mandatory	1	January	
F27CS	Introduction to Computer Systems	Mandatory	1	January	
C17PS	Becoming a Professional	Optional	1	January	
F17SC	Discrete Mathematics	Optional	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 4 Mandatory Courses					
F28PL	Programming Languages	Mandatory	2	September	Sept 2023 To Dec 2023
F28WP	Web Programming	Mandatory	2	September	
F28ED	Experimental Design	Mandatory	2	September	
F28SG	Intro Data Struct & Algorithms	Mandatory	2	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F28DA	Data Structures & Algorithms	Mandatory	2	January	Jan 2024 To May 2024
F28DM	Database Management Systems	Mandatory	2	January	
F28SD	Introduction to Software Engineering	Mandatory	2	January	
F28HS	Hardware-Software Interface	Optional	2	January	
C18OP	Operations Management	Optional	2	January	
Year 3					
September Semester – 4 Mandatory Courses					
F29AI	Artificial Intelligence & Intelligent Agents	Mandatory	3	September	Sept 2023 To
F29DC	Data Communications & Networking	Mandatory	3	September	

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F29KM	Knowledge Management	Mandatory	3	September	Dec 2023
F29SO	Software Engineering	Mandatory	3	September	
January Semester – 4 Mandatory Courses					
F29SS	Sociotechnical & Software Systems	Mandatory	3	January	Jan 2024 To May 2024
F29LP	Language Processors	Mandatory	3	January	
F29OC	Operating Systems & Concurrency	Mandatory	3	January	
F29PD	Professional Development	Mandatory	3	January	
Year 4					
September Semester – 2 Mandatory and 2 Optional Courses					
F20PA	Research Methods & Requirements Engineering	Mandatory	4	September	Sept 2023 To Dec 2023
F20GA	3D Graphics & Animation	Mandatory	4	September	
F20SA	Statistical Modelling & Analysis	Optional	4	September	
F20CN	Computer Network Security	Optional	4	September	
F20IF	Information Systems Methodologies	Optional	4	September	
F20RS	Rigorous Methods for Software Engineering	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F20GP	Computer Games Programming	Mandatory	4	January	Jan 2024 To May 2024
F20PB	Design & Implementation	Mandatory	4	January	
F20PC	Project Testing & Presentation	Mandatory	4	January	
F20DE	Digital and Knowledge Economy	Optional	4	January	
F20FO	Digital Forensics	Optional	4	January	
F20AD	Advanced Interaction Design	Optional	4	January	
F20BD	Big Data Management	Optional	4	January	
F20EC	E-Commerce Technology	Optional	4	January	
F20AN	Advanced Network Security	Optional	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	

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BSc Computer Systems

Programme Name	: BSc Computer Systems				
Programme Code	: F2CC-CSE				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Mr. Md Azher Uddin	m.uddin@hw.ac.uk			
Year 1 Coordinator	Dr Adrian Turcanu	a.turcanu@hw.ac.uk			
Year 2 Coordinator	Mr. Kayvan Karim	k.karim@hw.ac.uk			
Year 3 Coordinator	Mr. Md Azher Uddin	m.uddin@hw.ac.uk			
Year 4 Coordinator	Dr Hani Ragab Hassen	h.ragabhassen@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 3 Mandatory and 1 Optional Course(s)					
F27PX	Praxis	Mandatory	1	September	Sept 2023 To Dec 2023
F27SA	Software Development 1	Mandatory	1	September	
F27ID	Introduction to Interaction Design	Mandatory	1	September	
F17LP	Logic & Proof	Optional	1	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F27SB	Software Development 2	Mandatory	1	January	Jan 2024 To Apr 2024
F27WD	Web Design & Databases	Mandatory	1	January	
F27CS	Introduction to Computer Systems	Mandatory	1	January	
C17PS	Becoming a Professional	Optional	1	January	
F17SC	Discrete Mathematics	Optional	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 4 Mandatory Courses					
F28PL	Programming Languages	Mandatory	2	September	Sept 2023 To Dec 2023
F28WP	Web Programming	Mandatory	2	September	
F28ED	Experimental Design	Mandatory	2	September	
F28SG	Introduction to Data Structures & Algorithms	Mandatory	2	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F28DA	Data Structures & Algorithms	Mandatory	2	January	Jan 2024 To Apr 2024
F28DM	Database Management Systems	Mandatory	2	January	
F28SD	Introduction to Software Engineering	Mandatory	2	January	
F28HS	Hardware-Software Interface	Optional	2	January	
C18OP	Operations Management	Optional	2	January	
Year 3					
September Semester – 4 Mandatory Courses					
F29AI	Artificial Intelligence & Intelligent Agents	Mandatory	3	September	Sept 2023 To Dec 2023
F29DC	Data Communications & Networking	Mandatory	3	September	
F29KM	Knowledge Management	Mandatory	3	September	
F29SO	Software Engineering	Mandatory	3	September	

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January Semester – 4 Mandatory Courses					
F29SS	Sociotechnical & Soft Systems	Mandatory	3	January	Jan 2024 To Apr 2024
F29LP	Language Processors	Mandatory	3	January	
F29OC	Operating Systems & Concurrency	Mandatory	3	January	
F29PD	Professional Development	Mandatory	3	January	
Year 4					
September Semester – 1 Mandatory and 3 Optional Course(s)					
F20PA	Research Methods & Requirements Engineering	Mandatory	4	September	Sept 2023 To Dec 2023
F20CN	Computer Network Security	Optional	4	September	
F20IF	Information System Methodologies	Optional	4	September	
F20RS	Rigorous Methods for Software Engineering	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
F20GA	3D Graphics & Animation	Optional	4	September	
F20SA	Statistical Modelling & Analysis	Optional	4	September	
January Semester – 2 Mandatory and 2 Optional Courses					
F20PB	Design & Implementation	Mandatory	4	January	Jan 2024 To Apr 2024
F20PC	Project Testing & Presentation	Mandatory	4	January	
F20DE	Digital and Knowledge Economy	Optional	4	January	
F20FO	Digital Forensics	Optional	4	January	
F20GP	Computer Games Programming	Optional	4	January	
F20AD	Advanced Interaction Design	Optional	4	January	
F20BD	Big Data Management	Optional	4	January	
F20EC	E-Commerce Technology	Optional	4	January	
F20AN	Advanced Network Security	Optional	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	

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BSc Data Sciences

Programme Name	: BSc Data Sciences				
Programme Code	: F902-MDS				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Dr Hadj Batatia	h.batatia@hw.ac.uk			
Year 1 Coordinator	Dr Hadj Batatia	h.batatia@hw.ac.uk			
Year 2 Coordinator	Dr Hadj Batatia	h.batatia@hw.ac.uk			
Year 3 Coordinator	Dr Hadj Batatia	h.batatia@hw.ac.uk			
Year 4 Coordinator	Dr Hadj Batatia	h.batatia@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 3 Mandatory and 1 Optional Course(s)					
F27PX	Praxis	Mandatory	1	September	Sept 2023 To Dec 2023
F17CA	Calculus A	Mandatory	1	September	
F27SP	Soft Dev for Data Sci 1	Mandatory	1	September	
F17LP	Logic & Proof	Optional	1	September	
F77SA	Introduction to Statistical Science A	Optional	1	September	
January Semester – 4 Mandatory Courses					
F27SQ	Soft Dev for Data Sci 2	Mandatory	1	January	Jan 2024 To Apr 2024
F17SC	Discrete Mathematics	Mandatory	1	January	
F77SB	Intro to Statistical Science B	Mandatory	1	January	
F17CB	Calculus B	Mandatory	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 3 Mandatory and 1 Optional Course(s)					
F18CF	Linear Algebra	Mandatory	2	September	Sept 2023 To Dec 2023
F78PA	Probability and Statistics A	Mandatory	2	September	
F18CD	Calculus & Real Analysis A	Mandatory	2	September	
F28SH	Programming for Data Analysis	Optional	2	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F28DB	Data Structures and Algorithms	Mandatory	2	January	Jan 2024 To Apr 2024
F78PB	Probability and Statistics B	Mandatory	2	January	
F28DM	Database Management Systems	Mandatory	2	January	
F18NA	Numerical Analysis	Optional	2	January	
Year 3					
September Semester – 4 Mandatory Courses					
F29AI	Artificial Intelligence and Intelligent Agents	Mandatory	3	September	Sept 2023 To Dec 2023
F29SO	Software Engineering	Mandatory	3	September	
F20ML	Statistical Machine Learning	Mandatory	3	September	
F79PS	Further Statistical Methods	Mandatory	3	September	

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January Semester – 2 Mandatory and 2 Optional Course(s)					
F29PD	Professional Development	Mandatory	3	January	Jan 2024 To Apr 2024
F79BI	Bayesian Inference & Computation Methods	Mandatory	3	January	
F79MB	Statistical Models B	Optional	3	January	
F20DV	Data Visualisation Analytics	Optional	3	January	
Year 4					
September Semester – 2 Mandatory and 2 Optional Courses					
F90XA	Dissertation A	Mandatory	4	September	Sept 2023 To Dec 2023
F20EP	Data Engineering Pipelines	Mandatory	4	September	
F10MM	Optimisation	Optional	4	September	
F79SP	Stochastic Processes	Optional	4	September	
F70SC	Statistical Computing	Optional	4	September	
F20SC	Industrial Programming	Optional	4	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F90AM	Advanced Machine Learning	Mandatory	4	January	Jan 2024 To Apr 2024
F20BD	Big Data Management	Mandatory	4	January	
F90XB	Dissertation B	Mandatory	4	January	
F21AA	Applied Text Analytics	Optional	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	
F70TS	Time Series	Optional	4	January	

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BSc Statistical Data Science

Programme Name	: BSc Statistical Data Science				
Programme Code	: F740-SDS				
Mode of Study	: Full Time				
Key Contacts					
Designation	Name	Contact Email			
Programme Director	Dr Haslifah Hasim	h.hasim@hw.ac.uk			
Year 1 Coordinator	Andres Barjas Paz	A.Barajas_Paz@hw.ac.uk			
Year 2 Coordinator	Maheen Hasib	M.Hasib@hw.ac.uk			
Year 3 Coordinator	Eric Aidoo	E.Aidoo@hw.ac.uk			
Year 4 Coordinator	Nasreddine Megrez	n.megrez@hw.ac.uk			
Course Code	Course Title	Mandatory /Optional	Year	Semester	Semester Dates
New Students					
Year 1					
September Semester – 2 Mandatory and 2 Optional Course(s)					
F17CA	Calculus A	Mandatory	1	September	Sept 2023 To Dec 2023
F77SA	Introduction to Statistical Science A	Mandatory	1	September	
F17LP	Logic & Proof	Optional	1	September	
F27SP	Introduction to Programming 1	Optional	1	September	
January Semester – 2 Mandatory and 2 Optional Course(s)					
F77SB	Introduction to Statistical Science B	Mandatory	1	January	Jan 2024 To Apr 2024
F17CB	Calculus B	Mandatory	1	January	
F27SQ	Introduction to Programming 2	Optional	1	January	
F17SC	Discrete Mathematics	Optional	1	January	
Direct Entry & Continuing Students					
Year 2					
September Semester – 5 Mandatory Courses					
F78PA	Probability and Statistics A	Mandatory	2	September	Sept 2023 To Dec 2023
F18CD	Calculus & Real Analysis A	Mandatory	2	September	
F78AA	Actuarial & Financial Maths A	Mandatory	2	September	
F78AP	Algorithmic Scientific Prog	Mandatory	2	September	
F18CF	Linear Algebra	Mandatory	2	September	
January Semester – 3 Mandatory and 1 Optional Course(s)					
F18CE	Calculus & Real Analysis B	Mandatory	2	January	Jan 2024 To Apr 2024
F78AB	Actuarial & Financial Maths B	Mandatory	2	January	
F78PB	Probability and Statistics B	Mandatory	2	January	
F27WD	Web Design & Databases	Optional	2	January	
F28SD	Introduction to Software Engineering	Optional	2	January	
F28DM	Database Management Systems	Optional	2	January	
Year 3					
September Semester – 3 Mandatory and 1 Optional Course(s)					
F79SP	Stochastic Processes	Mandatory	3	September	Sept 2023 To Dec 2023
F79MA	Statistical Models A	Mandatory	3	September	
F79PS	Statistics for Social Science	Mandatory	3	September	
F29AI	Artificial Intelligence and Intelligent Agents	Optional	3	September	

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January Semester – 3 Mandatory and 1 Optional Course(s)					
F79MB	Statistical Models B	Mandatory	3	January	Jan 2024 To Apr 2024
F79BI	Bayesian Inference & Computation Methods	Mandatory	3	January	
F79SU	Survival Models	Mandatory	3	January	
F28DM	Database Management Systems	Optional	3	January	
Year 4					
September Semester – 3 Mandatory and 1 Optional Course(s)					
F70DA	Statistics Dissertation A	Mandatory	4	September	Sept 2023 To Dec 2023
F10MM	Optimisation	Mandatory	4	September	
F20ML	Statistical Machine Learning	Mandatory	4	September	
F10DA	Data Assimilation	Optional	4	September	
January Semester – 2 Mandatory and 2 Optional Courses					
F70DB	Statistics Dissertation B	Mandatory	4	January	Jan 2024 To Apr 2024
F70TS	Time Series	Mandatory	4	January	
F70ST	Statistics Special Topic	Optional	4	January	
F20BD	Big Data Management	Optional	4	January	
F20DV	Data Visualisation Analytics	Optional	4	January	