LEVELS 3-7
based on the UK's RQF educational standards
ACADEMIC PLAN
Only educational institutions with valid IQAC accreditation are authorized to implement this academic plan

Major: Diploma in Data Science

Academic level:	Level 3 - Foundation
	Levels 4-6 - Bachelor
	Level 7 - Master`s

Mode of study – full time, blended, distance learning

Classification – Data Science

I. ACADEMIC PLAN

LEVEL	Weeks			Study process: Total	Theoretical-practical study	Assessment	Production practice	Weeks credit module system	Academic break	Total
III	K K ... B B K A A A ... K A A B B B B B B B B B B			40	30	6	-	4	12	52
IV	K K ... B B K A A A ... K A A B B B B B B B B B B			39	30	5	-	4	13	52
V	K K ... B B K A A A ... K A A B B B B B B B B B B			39	30	5	-	4	13	52
VI	... K B B A A A ... K A A A B B B B B B B B B B B			38	30	6	-	2	14	52
VII	K K ... B B K A A ... K ... K A A B B B B B B B B B			40	30	5	-	5	12	52
VII	... K ... B B K K A A A A A - - ... -			23	15	5	-	3	2	25
All				**219**	**165**	**32**	**-**	**22**	**66**	**285**

Weeks: September (1 2 3 4), October (5 6 7 8), November (9 10 11 12 13), December (14 15 16 17), January (18 19 20 21 22), February (23 24 25 26), March (27 28 29 30), April (31 32 33 34), May (35 36 37 38 39), June (40 41 42 43), July (44 45 46 47), August (48 49 50 51 52)

	Theoretical-practical study	**A**	Assessment	**B**	Academic break	**K**	Weeks - credit module system	**P**	Production practice is given in appendix 8

II. Curriculum

Level 3 Diploma in IT- General for all IT

№	Unit Reference Number	Unit	Subjects	Total qualification time	Total Guided learning hours	Theory-based learning	Practice-based learning	Self-guided learning hours	I semester CATS	I semester ECTS	II semester CATS	II semester ECTS	Total credit value by year CATS	Total credit value by year ECTS
1	2	3	4	5	6	7	8	9	10		11		12	
3.01	L03FEN-U1	Unit 1	Functional English	120	48	24	24	72	12	6			12	6
3.02	L03OPS-U2	Unit 2	Operating System	200	90	45	45	110	20	10			20	10
3.03	L03NCS-U3	Unit 3	Networking and Cyber Security	120	48	24	24	72			12	6	12	6
3.04	L03PAD-U4	Unit 4	Programming concepts and application development	200	90	45	45	110			20	10	20	10
3.05	L03CAI-U5	Unit 5	Cloud computing & AI	120	48	24	24	72	12	6			12	6
3.06	L03MIT-U6	Unit 6	Mathematics in IT	200	90	45	45	110	20	10			20	10
3.07	LO3SSC-U7	Unit 7-uz	Social Science (The New History of Uzbekistan, Philosophy, Basics of Spirituality and Jurisprudence)	200	90	45	45	110	10	5	10	5	20	10
	L03PRP-DS		Capstone project	40	40			40			4	2	4	2
			Total 3 level subjects	**1200 CATS/ 1800 ECTS**	**544 CATS/ 816 ECTS**	**252 CATS/ 375 ECTS**	**292 CATS/ 441 ECTS**	**656 CATS/ 984 ECTS**	74	37	46	23	120	60

III. Curriculum

Level 5 Extended Diploma in Data Science

Extended level included 4 and 5 levels. 1-6 units of level 4; 7-12 units of level 5. Each level has two semesters that means a year. Extended level 4-5 will be two years

№	Unit Reference Number	Unit	Subjects	Total qualification time	Guided learning hours	Theory based learning	Practice based learning	Self-guided learning hours	III semester CATS	III semester ECTS	IV semester CATS	IV semester ECTS	Total credit value by year CATS	Total credit value by year ECTS
1.	2.	3.	4.	5.	6.	7.	8	9.	10.		11.		12.	
5.01	L04PWP-U1	Unit 1	Programming with Python	200	90	45	45	110	20	10			20	10
5.02	L04LAC-U2	Unit 2	Linear Algebra and Calculus	200	90	45	45	110	20	10			20	10
5.03	L04IDS-U3	Unit 3	Introduction to Data Science	200	90	45	45	110	20	10			20	10
5.04	L04DBS-U4	Unit 4	Database Systems	200	90	45	45	110			20	10	20	10
5.05	L04SMD-U5	Unit 5	Statistical Methods for Data Science	200	90	45	45	110			20	10	20	10
5.06	L04MLF-U6	Unit 6	Machine Learning Foundations	200	90	45	45	110			20	10	20	10
			Total 4 level subjects	**1200 CATS/ 1800 ECTS**	**540 CATS/ 810 ECTS**	**270 CATS/ 405 ECTS**	**270 CATS/ 405 ECTS**	**660 CATS/ 990 ECTS**	60	30	60	30	120	60

Level 5 Extended Diploma in Data Science

№	Unit Reference Number	Unit	Subjects	Total qualification time	Guided learning hours	Theory based learning	Practice based learning	Self-guided learning hours	V semester CATS	V semester ECTS	VI semester CATS	VI semester ECTS	Total credit value by year CATS	Total credit value by year ECTS
5.07	L05DVC-U7	Unit 7	Data Visualization and Communication	200	90	45	45	110	20	10			20	10
5.08	L05DMBD-U8	Unit 8	Data Mining and Big Data Analytics	200	90	45	45	110	20	10			20	10
5.09	L05DEP-U9	Unit 9	Data Ethics and Privacy	200	90	45	45	110	20	10			20	10
5.10	L05ADA-U10	Unit 10	Advanced Data Analytics	200	90	45	45	110			20	10	20	10
5.11	L05DSCP-U11	Unit 11	Data Science Capstone Project	200	90	45	45	110			20	10	20	10

№	Unit Reference Number	Unit	Subjects	Total											
5.12	L05PDDS-U12	Unit 12	Professional Development in Data Science	200	90	45	45	110			20	10	20	10
			Total 5 level subjects	**1200 CATS/ 1800 ECTS**	**540 CATS/ 810 ECTS**	**270 CATS/ 405 ECTS**	**270 CATS/ 405 ECTS**	**660 CATS/ 990 ECTS**	**60**	**30**	**60**	**30**	**120**	**60**
			Total extended level 5	**2400 CATS/ 3600 ECTS**	**1080 CATS/ 1620 ECTS**	**540 CATS/ 810 ECTS**	**540 CATS/ 810 ECTS**	**1320CATS/ 1980 ECTS**	**120**	**60**	**120**	**60**	**240**	**120**

IV. Curriculum

Level 6 Diploma in Diploma in Data Science

№	Unit Reference Number	Unit	Subjects	Total student workload					Semester				Total credit value by year	
				Distribution					VII semester		VIII semester			
				Total qualification time	Guided learning hours	Theory based learning	Practice based learning	Self-guided learning hours	Semester credits					
									CATS	ECTS	CATS	ECTS	CATS	ECTS
1	2		3	4	5	6	7	8	9		10		11	
6.01	L06APDS-U1	Unit 1	Advanced Programming for Data Science	200	90	45	45	110	20	10			20	10
6.02	L06AMLD-U2	Unit 2	Advanced Machine Learning and Deep Learning	200	90	45	45	110	20	10			20	10
6.03	L06CCDE-U3	Unit 3	Cloud Computing and Data Engineering	200	90	45	45	110	20	10			20	10
6.04	L06DEBD-U4	Unit 4	Data Engineering and Big Data Technologies	200	90	45	45	110			20	10	20	10
6.05	L06EGDS-U5	Unit 5	Ethics, Governance and Data Security	200	90	45	45	110			20	10	20	10
6.06	L06CPDSS-U6	Unit 6	Capstone Project: Applied Data Science Solutions	200	90	45	45	110	10	5	10	5	20	10
			Total 6 level subjects	**1200 CATS/ 1800 ECTS**	**540 CATS/ 810 ECTS**	**270 CATS/ 405 ECTS**	**270 CATS/ 405 ECTS**	**660 CATS/ 990 ECTS**	**70**	**35**	**50**	**25**	**120**	**60**
			Overall, for bachelor levels											
			Total 3 level subjects	1200	544	252	292	656	74	37	46	23	120	60
			Total 4 level subjects	1200	540	270	270	660	60	30	60	30	120	60
			Total 5 level subjects	1200	540	270	270	660	60	30	60	30	120	60
			Total 6 level subjects	1200	540	270	270	660	70	35	50	25	120	60
			Total	**4800 CATS/ 7200 ECTS**	**2164 CATS/ 3246 ECTS**	**1062 CATS/ 1590 ECTS**	**1102CATS/ 1656 ECTS**	**2636 CATS/ 3954 ECTS**	**264**	**132**	**216**	**108**	**480**	**240**

V. Curriculum

Master`s degree

Level 7 Diploma in Cyber Security

№	Unit Reference Number	Unit	Subjects	Total student workload					Semester						Total credit value by year	
				Distribution					I Semester		II semester		III semester			
				Total qualification time	Guided learning hours	Theory based learning	Practice based learning	Self-guided learning hours	Semester credits							
									CATS	ECTS	CATS	ECTS	CATS	ECTS	CATS	ECTS

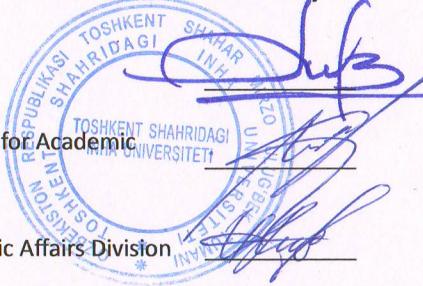| 1.	2.	3.	4.	5.	6.	7.	8.	9.	10.		11.		12.		13.	
7.01	L07NLTA-U1	Unit 1	Natural Language Processing and Text Analytics	200	90	45	45	110	20	10					20	10
7.02	L07ASMI-U2	Unit 2	Advanced Statistical Modelling and Inference	200	90	45	45	110	20	10					20	10
7.03	L07AIAS-U3	Unit 3	Artificial Intelligence and Autonomous Systems	200	90	45	45	110	20	10					20	10
7.04	L07AIRI-U4	Unit 4	Ethical AI and Responsible Innovation	200	90	45	45	110			20	10			20	10
7.05	L07SDLI-U5	Unit 5	Strategic Data Leadership and Innovation	200	90	45	45	110			20	10			20	10
7.06	L07RPMD-U6	Unit 6	Research Project / Master's Thesis in Data Science	200	90	45	45	110			10	5	10	5	20	10
7.07			SAW (Scientific Academic Work)	300	120		120	180	10	5	10	5	10	5	30	15
7.08			SRW (Scientific Research Work)	300	120		120	180	10	5	10	5	10	5	30	15
			Total	**1800 CATS/ 2700 ECTS**	**780 CATS /1170ECTS**	**270CATS/ 405 ECTS**	**510CATS/ 765 ECTS**	**1020 CATS/ 1530 ECTS**	80	40	70	35	30	15	180	90

Appendix:

1. 1 credit consists 10 academic hours.
2. **Course** - Individual units of the programme are called courses. Each course is a self-contained, formally structured learning experience with a coherent and explicit set of learning outcomes and assessment criteria.
3. **Learning Outcomes** – Describe what learners should know, be able to do, and value as a result of integrating knowledge, skills, and attitudes learned throughout the course.
4. **Assessment Criteria** – Refer to the specific standards or benchmarks used to evaluate the effectiveness of the outcomes attained.
5. **Total Qualification Time (TQT)** – The number of notional hours which represents an estimate of the total amount of time that could reasonably be expected to be required for a learner to achieve and demonstrate the level of attainment necessary for the award of a qualification.
6. **TQT** is comprised of the following two elements:
• **Guided Learning Hours (GLH)** – Defined as the hours that a teacher, lecturer, or another member of staff is available to provide immediate teaching support or supervision to a student working towards a qualification.
• **Credit Value** – Defined as the number of credits that may be awarded to a learner for the successful achievement of the learning outcomes of a unit. One credit is equal to 10 hours of TQT.
7. **RQF** – Regulated Qualifications Framework
8. Each level has own practice hours which included in TQT; practice hours are taken from each unit by 10%, meaning 20 hours in one level it equals to 120 hours
   - *Level 4* (extended 5 first year) 120 hours of production practice
   - *Level 5* (also in second year) 120 hours of production practice
   - *Level 6* – 120 hours for practice before defend Final Capstone project (Graduation work) Implementational practice of Capstone project (Graduation work)
      Total practice hours 360 hours in CATS -36 credit *(18 ECTS credits 540 hours)*
9. SAW (Scientific Academic Work) making methodical instructions books, assist teachers on their classes (making classes)
10. SRW (Scientific Research Work) retrieval search for research, making scientific papers and publishing them
11. The European Credit Transfer and Accumulation System (ECTS) is a standardized academic credit system widely adopted across the European Higher Education Area and currently implemented in Uzbekistan, where 60 ECTS credits represent the workload of one full academic year. In the United Kingdom, the Credit Accumulation and Transfer Scheme (CATS) is applied, with 120 CATS credits corresponding to a full academic year; typically, 2 CATS credits are considered equivalent to 1 ECTS credit.
12. This academic plan is eligible for adoption by other higher education institutions and universities that hold official approval and accreditation from the IQAC
    Upon approval of this academic plan schedule, the involved parties will be authorized to issue their respective diplomas, meaning that the student will receive two diplomas upon graduation.

On behalf of INHA university in Tashkent

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First Vice-Rector for Academic Affairs   J. Inoyatkhodjaev

Head of Academic Affairs Division   U. Rustamova

On behalf of International Qualifications and Assessment Centre

Director of studies   U. Azizov

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