National Curriculum of Pakistan
2022-23

COMPUTER SCIENCE

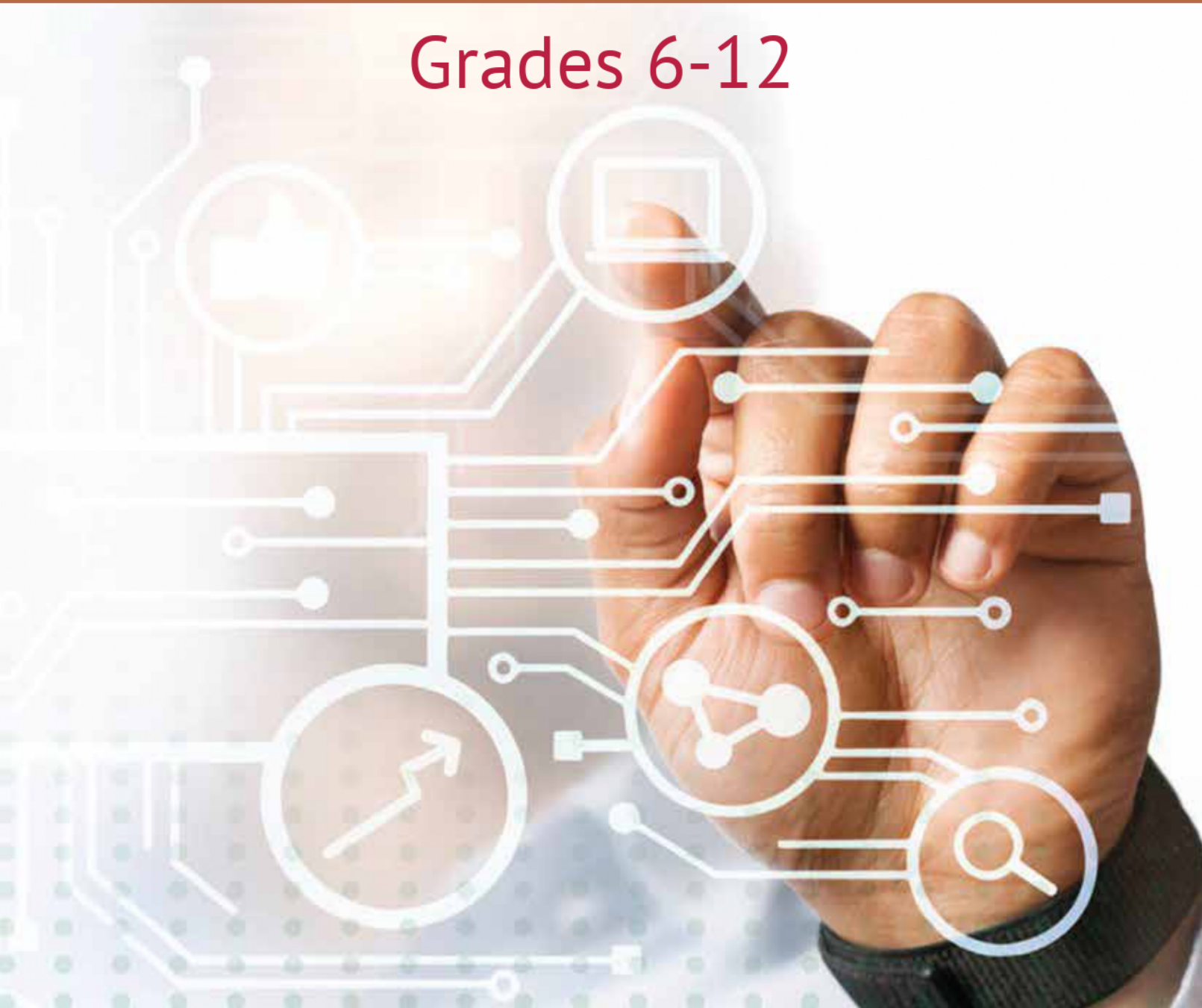## Grades 6-12

بسم الله الرحمن الرحيم

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2022-23

COMPUTER SCIENCE

Grades 6-12

NATIONAL CURRICULUM COUNCIL SECRETARIAT
MINISTRY OF FEDERAL EDUCATION AND
PROFESSIONAL TRAINING, ISLAMABAD
GOVERNMENT OF PAKISTAN

It is with great pride that we, at the National Curriculum Council Secretariat, present the first core curriculum in Pakistan's 75-year history. Consistent with the right to education guaranteed by Article 25-A of our Constitution, the National Curriculum of Pakistan (2022-23) aspires to equip every child with the necessary tools required to thrive in and adapt to an ever-evolving globalized world.

The National Curriculum is in line with international benchmarks, yet sensitive to the economic, religious, and social needs of young scholars across Pakistan. As such, the National Curriculum aims to shift classroom instruction from rote learning to concept-based learning.

Concept-based learning permeates all aspects of the National Curriculum, aligning textbooks, teaching, classroom practice, and assessments to ensure compliance with contemplated student learning outcomes. Drawing on a rich tapestry of critical thinking exercises, students will acquire the confidence to embark on a journey of lifelong learning. They will further be able to acknowledge their weaknesses and develop an eagerness to build upon their strengths.

The National Curriculum was developed through a nationwide consultative process involving a wide range of stakeholders, including curriculum experts from the public, private, and non-governmental sectors. Representatives from provincial education departments, textbook boards, assessment departments, teacher training departments, *deeni madaris*, public and private publishers, private schools, and private school associations all contributed their expertise to ensure that the National Curriculum could meet the needs of all Pakistani students.

The experiences and collective wisdom of these diverse stakeholders enrich the National Curriculum, fostering the core, nation-building values of inclusion, harmony, and peace, making the National Curriculum truly representative of our nation's educational aspirations and diversity.

I take this opportunity to thank all stakeholders, including students, teachers, and parents who contributed to developing the National Curriculum of Pakistan (2022-23)

Dr. Mariam Chughtai
Director
National Curriculum Council Secretariat
Ministry of Federal Education and Professional Training

Computer Science (6-8)
Progression Grid

The Progression Grid template below is taken from the English Curriculum 2020. There are two changes made. First, the template begins with the Domain name instead of Competency. Second, the columns are extended to Grade 12. Please note that some Standards and Student Learning Outcomes will not begin until a higher grade or learning level. This template format must be consistent for all subjects.

The Domains in this are:
A.   ICT Fundamentals
B.   Digital Skills
C.   Algorithmic Thinking and Problem Solving
D.   Programming
E.   Digital Citizenship
F.   Entrepreneurship in Digital Age

Progression Grid

Domain A: ICT Fundamentals

Standard: Students develop an understanding of ICT, ICT devices, computer systems (hardware), and networks

Grade 6	Grade 7	Grade 8
Benchmarks: Students will be able to recognize computer systems and various ICT devices; differentiate between hardware and software; analyze the importance, advantages, and uses of ICT devices; analyze the use of emerging technologies in various walks of life; define a network, identify and analyze the core networking components and their roles		
Student learning outcomes		
[SLO: CS-06-A-01] Students will be able to recognize various ICT devices and their applications.		
	[SLO: CS-07-A-01]Students will be able to identify the use of emerging technologies in various walks of life (e.g. artificial intelligence, biometrics, robotics, computer-assisted translation,	[SLO: CS-08-A-01] Students will be able to analyze the usage of emerging technologies in various walks of life (e.g. artificial intelligence, 5G, robotics, computer-assisted translation, 3D and

	Student learning outcomes	
	3D and holographic imaging, virtual reality, Cloud Computing, and open-source software.	holographic imaging, virtual reality, distributed applications, block-chain, and Machine Learning.)
[SLO: CS-06-A-02] Students will be able to define and differentiate between computer hardware and software.		
[SLO: CS-06-A-03] Students will be able to identify and analyze (basic) hardware components of a computing system (e.g.processor, memory and storage).	[SLO: CS-07-A-02] Students will be able to identify (advanced) hardware components of a computing system (e.g. different types of I/O ports, different types of peripherals, and networking components).	
		[SLO: CS-08-A-02] Students will be able to identify and analyze a network and identify core networking components and their roles.

Domain B: Digital Skills

Standard: Develop various digital skills pertaining to usage of operating systems, image processing, word processing, presentation, and data handling.

Grade 6	Grade 7	Grade 8
Benchmarks: Students will be able to navigate around an Operating System; efficiently use computer hardware; develop and demonstrate image processing, word processing, presentation, and data handling skills (using various software tools)		
Student learning outcomes		
[SLO: CS-06-B-01] Students will be able to navigate around an Operating System (e.g. Microsoft Windows, MAC OS, Linux, Ubuntu, Android, iOS, etc).		
[SLO: CS-06-B-02] Students will be able to develop and demonstrate image-processing skills (using various	[SLO: CS-07-B-01] Students will be able to develop and demonstrate word-processing and presentation skills	[SLO: CS-08-B-01] Students will be able to develop and demonstrate data handling

Student learning outcomes		
software tools e.g. Paint, 3D Paint, Tux, etc.), while efficiently using computer hardware (e.g. mouse, keyboard, etc.)	(using various software tools e.g. MS Word, MS PowerPoint, Prezi, Canva, Photo Story, Movie-maker, etc.)	skills (using various software tools e.g. MS Excel, Google sheets, etc.)
[SLO: CS-06-B-03] Students will demonstrate how to navigate the internet to conduct a search query and arrive at an authentic result.	[SLO: CS-07-B-02] Students will get introduced to electronic mailing systems (e-mail) and learn appropriate usage.	*[SLO: CS-08-B-Add]* **Additional SLO** *Students will learn how to research information from the internet for a report that answers a research question and communicates results and conclusions.*

Domain C: Algorithmic Thinking and Problem Solving

Standard: Identify, define, and analyze a problem, and apply algorithmic thinking and problem-solving strategies to develop step-by-step solutions to solve problems

Grade 6	Grade 7	Grade 8
Benchmarks: Students will be able to identify, define and analyze a problem; apply the concepts of computational thinking and problem-solving strategies to solve complex problems; apply basic concepts and concept of nesting in algorithmic design thinking		
Student learning outcomes		
[SLO: CS-06-C-01] Students will be able to identify, define and analyze a problem	[SLO: CS-07-C-01] Students will be able to apply the concept of computational thinking to handle complex problems.	[SLO: CS-08-C-01] Students will be able to apply the concepts of computational thinking and problem-solving strategies to solve complex problems by identifying the most efficient algorithm
[SLO: CS-06-C-02] Students will be able to apply basic algorithmic thinking to solve different types of problems.	[SLO: CS-07-C-02] Students will be able to apply concepts of conditional statements, finite and infinite loops to write different algorithms.	[SLO: CS-08-C-02] Students will be able to apply the concepts of nesting in algorithmic design thinking.

Domain D: Programming

Standard: Understand and apply fundamental programming constructs using visual and textual programming tools

Grade 6	Grade 7	Grade 8
Benchmarks Students will be able to recognize the fundamentals of computer programming; analyze how computers encode and decode information; apply fundamental programming constructs by creating various types of programs using visual programming tools.		
Student learning outcomes		
[SLO: CS-06-D-01] Students will be able to analyze the fundamentals of computer programming.	[SLO: CS-07-D-01] Students will be able to explain how computers encode and decode computer programs (i.e. identification of decimal to binary and vice versa, conversion of texts, images and sounds in binary).	
[SLO: CS-06-D-02]Students will be able to analyze and apply basic programming constructs (e.g. sequence, selection, repetition, variables, inputs/events); by creating simple single-sprite, single-script programs using a visual programming tool. *[SLO: CS-06-D-Add]* **Additional SLO**: *Students will be able to apply basic programming constructs (e.g. sequence, selection, repetition, variables, inputs/events); by creating simple single-sprite, single-script programs using textual programming tools.*	[SLO: CS-07-D-02] Students will be able to apply fundamental programming constructs to create multi-sprite, multi-script programs using visual programming tools. *[SLO: CS-07-D-Add]* **Additional SLO**: *Students will be able to apply fundamental programming constructs to create multi-sprite, multi-script programs using textual programming tools.*	[SLO: CS-08-D-Add1]Students will be able to apply intermediate-level programming constructs (e.g. functions, cloning, conditional movement); by creating mini-games using a visual programming tool. **[SLO: CS-08-D-Add2]** **Additional SLO**: *Students will be able to apply intermediate-level programming constructs (e.g. functions, cloning, conditional movement); by creating mini-games using a textual programming tool.*
		[SLO: CS-10-D-Add] **Additional SLO** *Students will be able to analyze constructs and fundamentals of textual (syntax-based) programming.*

Domain E: Digital Citizenship

Standard: Learn the basics of the internet, write an email, identify risks involved in an online exchange of information and apply digital safety protocols.

Grade 6	Grade 7	Grade 8
Benchmarks: Students will be able to use the internet through various connections, search relevant and authentic content, write an email for different purposes and protect the device against viruses. Students will also be able to identify and apply ICT and internet ethics, mitigate health risks involved in using ICT devices, familiarize themselves with cyber issues, and realize risks involved in information exchange by taking necessary precautions against cyber issues.		
Student learning outcomes		
[SLO: CS-06-E-01] Students will analyze the basics of information literacy and digital civility and appropriate uses of technology.	[SLO: CS-07-E-01] Students will identify ways to protect against malicious activities or behaviors in the digital environment.	[SLO: CS-08-E-01] Students will identify ways of protecting against cybercrimes.

Domain F: Entrepreneurship in Digital Age

Standard: Students apply problem-solving skills to solve a market need.

Grade 6	Grade 7	Grade 8
Benchmarks: Students will apply the tools and mindsets needed to develop and launch a business idea.		
Student learning outcomes		
[SLO: CS-06-F-01] Students will define and analyze entrepreneurship subtypes and summarize the entrepreneurship process	[SLO: CS-07-F-01]Students will analyze the uses and benefits of design thinking for entrepreneurs.	[SLO: CS-08-F-01] Students will develop an understanding of the basics of digital marketing platforms and social media marketing to develop a marketing plan for a business.
		[SLO: CS-08-F-02] Students will be able to identify and create different components of a business plan i.e. market need, product design, costing, operations, and marketing.

Computer Science & Entrepreneurship (9-12) Progression Grid

PART 1: COMPUTER SCIENCE

Domain A: Computer Systems

Standard: *Students will learn about components and interactions between computer systems, stages of software development, data representation and transmission across networks of computing systems, and the implications on usability, reliability, security, etc*

Grade 9	Grade 10	Grade 11	Grade 12
Benchmark I: Students will identify and analyze components of computer systems and different levels of interactions between hardware, software, users, and computer networks		*Benchmark I: Students will identify and analyze logic gates in digital systems* *Benchmark II: Students will identify stages of system software development* *Benchmark III: Students will learn about scalability, reliability, and security of computer networks*	
Student Learning Outcome			
[SLO CS-09-A-01] Students will define and describe types of systems (artificial, natural), computer hardware components such as computer architecture (CPU, microprocessors, etc.),	*[SLO CS-10-A-01] Students will be able to understand and describe number systems and encoding schemes for data representation in computer systems*	*[SLO CS-11-A-01] Students will be able to understand and apply logic gates in digital systems, define and create truth tables using Boolean operators like AND, OR, NOT, NAND, XOR) and logic diagrams*	*[SLO CS-12-A-01] Students will explain the usability, security and accessibility of devices, the systems they are integrated with.* *[SLO CS-12-A-02] Explain human interaction with computer systems in terms of:* - *Usability* - *Common problems* - *Methods for improvements* - *Ethical, social, economic, and environmental implications*
[SLO CS-09-A-02] Students will be able to identify and explain system software, application software, low-level and high-level programming languages, and their uses.	*[SLO CS-10-A-02] Students will be able to explain how system software controls the flow of information between hardware components used for input, output, storage, and processing* *[SLO CS-10-A-03] Students*	*[SLO CS-11-A-02] Students will be able to understand and evaluate stages of the systems design, e.g. software development life cycle (analysis, design, coding, and testing etc.), and software development methodologies*	

Student learning outcomes			
	will identify and learn common software tools such as translators, integrated development environments, online and offline computing platforms, code repositories, etc.		
[SLO CS-09-A-03] Students will be able to identify and analyze data communication, computer networks, networking devices, basic networking systems and understand how data is transmitted and key concepts such as protocols, speeds, etc.		*[SLO CS-11-A-03] Students will be able to understand and explain the scalability and reliability of networking systems via network topology* *[SLO CS-11-A-04] Understand and explain the need for cybersecurity and contrast different methods of encryption to transmit data*	*[SLO CS-12-A-03] Identify and explain tradeoffs between the usability and security of computing systems, recommend cybersecurity measures by considering different factors such as efficiency, cost, privacy, and ethics*

Domain B: Computational Thinking & Algorithms

Standard: *Students will identify and decompose simple and complex problems, create & evaluate appropriate solutions using computational approaches, and understand and apply common algorithms used in solving computational problems*

Grade 9	Grade 10	Grade 11	Grade 12
Benchmark I: *Students will understand and apply computational thinking techniques to solve complex, real-world problems.*		**Benchmark I**: *Students have core concepts of basic data structures and algorithms used extensively in computer science and knowledge of how to apply these techniques toward solving more complex and real-life problems.*	
Student Learning Outcomes			
[SLO CS-09-B-01] Understand and apply techniques to decompose problems	*[SLO CS-10-B-01] Students will identify common algorithms used to develop software, store, search, or sort information*	*[SLO CS-11-B-01] Plan, develop, systematically test, and refine computational artifacts for problem-solving such as pseudocode, etc.*	*[SLO CS-12-B-01] Understand and evaluate the computational solutions in terms of efficiency, clarity, and correctness*
[SLO CS-09-B-02] Solve simple and complex problems computationally	*[SLO CS-10-B-02] Develop and apply abstractions to create generalized, modular solutions*	*[SLO CS-11-B-02] Apply common search, and sort algorithms*	*[SLO CS-12-B-02] Understand and apply complex algorithms on data structures such as trees and*

Student learning outcomes			
			binary search

Domain C: Programming Fundamentals

Standard: Students will create and debug projects in programming languages Python, HTML, and JavaScript, learning how to translate algorithms into code and define & apply fundamental programming constructs such as sequence, selection, and iteration

Grade 9	Grade 10	Grade 11	Grade 12
Benchmark I: *Students will develop, test, and debug static website (using HTML and CSS) and a dynamic website (using JavaScript)*		**Benchmark I**: *Students will develop, test, debug command-line interface (CLI) applications in Python*	
Student Learning Outcomes			
[SLO CS-09-C-01] Students will understand web development and differentiate between a website and a web application	*[SLO CS-10-C-01] Students should be able to differentiate between front-end development, and back-end development of a website*	*[SLO CS-11-C-01] Students should understand the importance of computer programming and applications*	*[SLO CS-12-C-01] Students should be able to understand and evaluate applications of various programming paradigms.*
[SLO CS-09-C-02] Students should be able to create a static website using HTML/CSS in an appropriate environment *[SLO CS-09-C-03] Students should be able to create dynamic websites using JavaScript as the frontend scripting*	*[SLO CS-10-C-02] Students should be able to use more advanced HTML/CSS features in an appropriate environment* *[SLO CS-10-C-03] Students should be able to use more advanced programming constructs (lists, etc.) to create dynamic websites using JavaScript as backend scripting*	*[SLO CS-11-C-02] Students should be able to write and execute simple programs in Python.* *[SLO CS-11-C-03] Students should be able to draw shapes using Turtle Graphics functions in Python* *[SLO CS-11-C-04] Students should be able to understand the need for libraries and learn the use of some simple libraries in Python.*	*[SLO CS-12-C-02] Students should be able to use more advanced programming constructs such as data structures (lists etc.), file handling (disk IO to write to storage), and databases in Python.*
[SLO CS-09-C-04] Students should be able to implement common algorithms that use sequence, selection, and repetition in JavaScript	*[SLO CS-10-C-04] Students should be able to implement complex algorithms that use more complex data structures (lists, etc.) in JavaScript*	*[SLO CS-11-C-05] Students should be able to translate simple algorithms that use sequence and repetition in Python.* *[SLO CS-11-C-06] Students*	*[SLO CS-12-C-03] Students should be able to implement complex algorithms that use lists etc. in Python*

		should be able to decompose a problem into sub-problems and implement those sub-problems using functions in Python.	
[SLO CS-09-C-05] Students will determine ways of debugging their code in JavaScript	*[SLO CS-10-C-05] Students will determine more advanced techniques (unit tests, breakpoints, watches) for testing and debugging their code in JavaScript*	*[SLO CS-11-C-07] Students will determine ways of debugging their code in Python*	*[SLO CS-12-C-04] Students will determine more advanced techniques (unit tests, breakpoints, watches) for testing and debugging their code in Python*

Domain D: Data and Analysis

Standard 1: Students will be able to understand the scope of data science, how computer systems collect, store, process, visualize, and interpret data

Standard 2: Students will get an introduction to the relational data model, relational database engines, and SQL and how to design good schemas.

Standard 3: What is AI and machine learning, and how does it relate to data and data science

Grade 9	Grade 10	Grade 11	Grade 12
Benchmark I: Students will be able to define and explain how to collect, store, analyze, visualize data		**Benchmark I**: Students will be able to represent databases using UML diagrams and extract data using queries, and create data visualizations using software tools	
Student Learning Outcomes			
[SLO CS-09-D-01] Students will explain the scope of the data science field as an interdisciplinary field (computer sciences, mathematics & statistics, and business knowledge & understanding).	*[SLO CS-10-D-01] Students will understand and explain the scope of data science, Artificial Intelligence (AI), and Machine Learning (ML), including types of supervised and unsupervised learning models, and their applications to common real-world problems.*	*[SLO CS-11-D-01] Students will be able to relate the role and importance of model building with their real-world applications* *[SLO CS-11-D-02] Students will understand and explain experimental design in data science*	*[SLO CS-12-D-01] Students will be able to analyse data and identify key model performance metrics of real-world machine learning models.*
[SLO CS-09-D-02] Students will define and explain data types, data collection, and data storage.	*[SLO CS-10-D-02] Students will understand and explain the types, uses, and methods of data visualizations and understand the benefits of*	*[SLO CS-11-D-03] Students will analyze pre-existing datasets to create summary statistics and data*	*[SLO CS-12-D-02] Students will explain and create a data visualization using Structured Query Language (SQL), or*

Student learning outcomes			
	visualizing data	*visuals (such as bar charts, pie charts, line graphs, etc.)*	*Python, or R*
[SLO CS-09-D-03] Students will be able to define and explain big data, and applications of big data in real-world business	*[SLO CS-10-D-03] Students will be able to apply stages of the data science life cycle e.g. understanding a real-world business problem, data gathering, building model, interpreting results).*	*.*	*Advanced SLO [SLO CS-12-D-03] Students will learn how to form hypotheses and perform hypothesis testing. Students will learn to communicate findings using advanced data visuals and tie them back to hypotheses.*

Domain E: Applications of Computer Science

Standard 1: Students will understand computer technologies such as Blockchain / AI / IoT / Cloud Computing / Game design and development
Standard 2: Students should be able to understand how computers learn, make decisions, and the applications, challenges, and social implications of AI

Grade 9	Grade 10	Grade 11	Grade 12
Benchmark I: Students learn about different popular fields in Computer Science like AI, Cloud Computing, IoT, and Blockchain.		**Benchmark I**: Students learn about different technologies that support the latest applications of CS and their relevance to Pakistan. **Benchmark II**: Students learn about data techniques in AI applications and the social implications of technology.	
Student Learning Outcome			
[SLO CS-09-E-01] Students will be able to describe uses and applications of computing like AI, Machine Learning, and Cloud Computing	*[SLO CS-10-E-01] Students will be able to describe uses and applications that are enabled by technologies like IoT, and Blockchain*	*[SLO CS-11-E-01] Students should be able to describe technologies that are the foundations of IoT systems, Cloud Computing, and Blockchain*	*[SLO CS-12-E-01] Students should be able to design ideas of applications relevant to Pakistan using IoT, Cloud computing, and Blockchain*
	[SLO CS-10-E-02] Students will be able to explain that AI can be applied to specific applications in areas like NLP, Robotics, Speech Recognition, etc.		*[SLO CS-12-E-02] Students should be able to describe deep learning and its applications*
[SLO CS-09-E-02] Students will be able to discuss the social implication of the	*[SLO CS-10-E-03] Students will be able to demonstrate the social implications of AI*	*[SLO CS-11-E-02] Students should be able to evaluate how different stakeholder's*	*[SLO CS-12-E-03] Students should be able to assess policies that can help*

usage of AI in decision-making that affects humans		*culture, values, and (sometimes conflicting) interests affect AI System designs.*	*protect different stakeholders' interests* *[SLO CS-12-E-04] Students should be able to evaluate scenarios with data sharing and privacy conflicts and suggest policy decisions that can help achieve acceptable compromises.*

Domain F: Impacts of Computing

Standard: Students will be able to understand ethics and laws related to computing and the use of computing devices, media, data, the internet, and the application of personal privacy and network security.

Standard 2: The environmental, cultural, and human impact of computing and assistive technologies for the modern world.

Grade 9	Grade 10	Grade 11	Grade 12
Benchmark I: *Students will obtain knowledge of ethical and legal issues surrounding the use of computing.* **Benchmark II**: *Students will understand privacy and network security issues surrounding computing applications and devices they use everyday* **Benchmark III**: *Students will understand the role of assistive technologies and understand the implications of the digital divide*		**Benchmark I**: *Students will interpret documents related to computing systems and evaluate their legal and ethical implications.* **Benchmark II**: *Students will be able to illustrate how they can maintain privacy online and address security concerns they may encounter with the use of computing devices and applications* **Benchmark III**: *Students will demonstrate their ability to collaborate and communicate on the design of computing applications*	
Student Learning Outcomes			
[SLO CS-09-F-01] Understand and apply safe and responsible use of computers (responsible use of hardware, appropriate use of software, and safe use of digital platforms like data searches, social networking, etc.)	*[SLO CS-10-F-01] Understand and apply safe & responsible use of the internet to prevent addiction, promote information and data security*	*[SLO CS-11-F-01] Understand and apply safe & responsible use of information sources, identifying sources of reliable information compared to unreliable information and its sources*	*[SLO CS-12-F-01] Identify and apply safe practices when collaborating on digital or online platforms.*
[SLO CS-09-F-02] Analyze the beneficial and harmful effects of computing innovations such	*[SLO CS-10-F-02] Evaluate the impact of and apply strategies to prevent cyberbullying/harassment*		*[SLO CS-12-F-02] Discuss security threats and mitigation such as 2FA, biometric verification, and*

Student learning outcomes			
as social networking, fake news, etc.			secure techniques for transmitting data etc.
[SLO CS-09-F-03] Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices	*[SLO CS-10-F-03] Analyze the impacts of the digital divide on access to critical information*	*[SLO CS-11-F-02] Define and discuss how computing has increased connectivity by enabling communication between people and the environmental, cultural, and human impact of increased connectivity*	*[SLO CS-12-F-03] Collaborate on strategies to provide equity and equal access to information*

Domain G: Digital Literacy

Standard: Collect & analyze information and publish to various audiences using digital tools and media-rich resources, and use digital tools to design and develop a significant digital artefact through research design, data collection, and communication.

Grade 9	Grade 10	Grade 11	Grade 12
Benchmark I: *Collect & analyze information and publish to various audiences using digital tools and media-rich resources.*		**Benchmark I**: *Use digital tools to design and develop a significant digital artefact through research design, data collection, and communication.*	
Student Learning Outcomes			
	[SLO CS-10-G-01] Communicate and publish key ideas and details to a variety of audiences using appropriate digital tools and media-rich resources	*[SLO CS-11-G-01] Perform advanced searches to locate information and/or design a data-collection approach to gather original data (e.g., qualitative interviews, surveys, prototypes, simulations)*	*[SLO CS-12-G-01] Students will create an artifact that answers a research question, communicates results and conclusions through digital resources or tools*

PART 2: ENTREPRENEURSHIP IN THE DIGITAL AGE

Domain H: Entrepreneurship in the Digital Age

Standard: Students will create a business using design thinking with the help of digital tools

Grade 9	Grade 10	Grade 11	Grade 12
Benchmark: Students will learn how to identify		***Benchmark:*** Students will learn how to build successful	

problems and create and present business solutions	products or services by creating and testing prototype and launching a minimum viable product		
Student Learning Outcomes			
[SLO EN-09-H-01]: Students identify a problem and create a business idea using design thinking	*[SLO EN-10-H-01]: Students will use digital tools to conduct research to collect market and customer insights for a business idea*	*[SLO EN-11-H-01]: Students will create, test, and iterate a prototype for a business idea*	*[SLO EN-12-H-01]: Students will create and test a minimum viable product for their business*
[SLO EN-09-H-02]: Students will use digital tools to create and present a business plan	*[SLO EN-10-H-02]: Students will pitch a business idea*		