

Subject									
Computer Science									
Grade									
SLOs for Assessment Key:									
1. Ambiguous - (Grey) 2.									
Not assessable in Summative - (Grey)									
3. Repetitive (with in same grade) - (Grey)									
4. Repetitive (with in same learning level) - (Grey)									
S #	Domains	Standards	Benchmarks	Topic/ Title	NCP-SLO No.	NCP (2022)-SLOs description	Status of SLOs	SLOs for Assessment	Cognitive Domain
1	Domain A: Computer Systems	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	Benchmark 1: Students will identify and analyze components of computer systems and different levels of interactions between hardware, software, users, and computer networks		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.),	Matched SLO		Remember
2	Domain A: Computer Systems	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	Benchmark 1: Students will identify and analyze components of computer systems and different levels of interactions between hardware, software, users, and computer networks		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.	Matched SLO		Understand
3	Domain A: Computer Systems	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	Benchmark 1: Students will identify and analyze components of computer systems and different levels of interactions between hardware, software, users, and computer networks		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.	Matched SLO		Analyse
4	Domain B: Computational Thinking & Algorithms	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	Benchmark 1: Students will understand and apply computational thinking techniques to solve complex, real-world problems.		SLO CS-09-B-01	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	Matched SLO		Analyse
5	Domain B: Computational Thinking & Algorithms	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	Benchmark 1: Students will understand and apply computational thinking techniques to solve complex, real-world problems.		SLO CS-09-B-02	Solve simple and complex problems computationally	Matched SLO		Apply
6	Domain C: Programming Fundamentals	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	Benchmark 1: Students will develop, test, and debug static website (using HTML and CSS) and a dynamic website (using JavaScript)		SLO CS-09-C-01	Students will understand web development and differentiate between a website and a web application	Matched SLO		Understand
7	Domain C: Programming Fundamentals	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	Benchmark 1: Students will develop, test, and debug static website (using HTML and CSS) and a dynamic website (using JavaScript)		SLO CS-09-C-02	Students should be able to create a static website using HTML/CSS in an appropriate environment	Matched SLO		Apply
8	Domain C: Programming Fundamentals	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	Benchmark 1: Students will develop, test, and debug static website (using HTML and CSS) and a dynamic website (using JavaScript)		SLO CS-09-C-03	Students should be able to create dynamic websites using JavaScript as the frontend scripting	Matched SLO		Apply
9	Domain C: Programming Fundamentals	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	Benchmark 1: Students will develop, test, and debug static website (using HTML and CSS) and a dynamic website (using JavaScript)		SLO CS-09-C-04	Students should be able to implement common algorithms that use sequence, selection, and repetition in JavaScript	Matched SLO		Apply
10	Domain C: Programming Fundamentals	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	Benchmark 1: Students will develop, test, and debug static website (using HTML and CSS) and a dynamic website (using JavaScript)		SLO CS-09-C-05	Students will determine ways of debugging their code in JavaScript	Matched SLO		Analyse
11	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	Benchmark 1: Students will be able to define and explain how to collect, store, analyze, visualize data		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).	Matched SLO		Remember
12	Domain D: Data and Analysis	Standard 2: Students will get an introduction to the relational data model, relational database engines, and SQL and how to design good schemas.	Benchmark 1: Students will be able to define and explain how to collect, store, analyze, visualize data		SLO CS-09-D-02	Students will define and explain data types, data collection, and data storage.	Matched SLO		Remember

13	Domain D: Data and Analysis	Standard 3: What is AI and machine learning, and how does it relate to data and data science	Benchmark 1: Students will be able to define and explain how to collect, store, analyze, visualize data		SLO CS-09-D-03	Students will be able to define and explain big data, and applications of big data in real world business	Matched SLO		Remember
14	Domain E: Applications of Computer Science	Standard 1: Students will understand computer technologies such as Blockchain / AI / IoT / Cloud Computing / Game design and development	Benchmark 1: Students learn about different popular fields in Computer Science like AI, Cloud Computing, IoT, and Blockchain.		SLO CS-09-E-01	Students will be able to describe uses and applications of computing like AI, Machine Learning, and Cloud Computing	Matched SLO		Understand
15	Domain E: Applications of Computer Science	Standard 1: Students will understand computer technologies such as Blockchain / AI / IoT / Cloud Computing / Game design and development	Benchmark 1: Students learn about different popular fields in Computer Science like AI, Cloud Computing, IoT, and Blockchain.		SLO CS-09-E-02	Students will be able to discuss the social implication of the usage of AI in decision-making that affects humans	Matched SLO		Understand
16	Domain F: Impacts of Computing	Standard 1: 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.	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		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.)	Matched SLO		Apply
17	Domain F: Impacts of Computing	Standard 2: The environmental, cultural, and human impact of computing and assistive technologies for the modern world.	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		SLO CS-09-F-02	Analyze the beneficial and harmful effects of computing innovations such as social networking, fake news, etc.	Matched SLO		Understand
19	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.	Benchmark 1: Collect & analyze information and publish to various audiences using digital tools and media-rich resources.		SLO CS-10-G-01	Gather, organize, analyze, and synthesize information using a variety of digital tools such as image processing, word processing, media presentation, and spreadsheets	New SLO		Analyse
18	Domain F: Impacts of Computing	Standard 2: The environmental, cultural, and human impact of computing and assistive technologies for the modern world.	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		SLO CS-09-F-03	Evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices	Matched SLO		Understand