

New Horizons Regional Education Centers (C&T)

Pacing Guide (SY 2020)

Program: Advanced Programming (6641)

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3 rd /4 th Quarters Topic/Unit	Virginia State Competencies	MTA Java Certification	Supporting Equipment Technology
The Software Industry Attributes of a professional programmer Internet Security	1-29, 33	-	Lecture/Web page/Computer
Object-oriented programming review: Overloading and overriding methods	34-43	Perform object-oriented programming	Lecture/Web page/Computer
Java GUI Swing API	39-49, 61	-	Lecture/Web page/Computer
Event Handling, Inner Classes and Anonymous inner classes	52, 54-55, 58-60	-	Lecture/Web page/Computer
Abstract classes and Interfaces The Comparable Interface	47, 48, 49	Perform object-oriented programming	Lecture/Web page/Computer

Software Testing			
Exception Handling	46	Compile and Debug Code	Lecture/Web page/Computer
Java Text and Binary Files	-	-	Lecture/Web page/Computer
Abstract Data Structures Searching and Sorting	44-45	-	Lecture/Web page/Computer
Software Development Industry Trends Programming Languages and Operating Systems	34-37	-	Lecture/Web page/Computer
Software Development Lifecycle	38	-	Lecture/Web page/Computer
MTA Java Certification Review	81-84	Yes	Lecture/Web page/Computer
Regular Expressions	-	-	Lecture/Web page/Computer
Multithreading	-	-	Lecture/Web page/Computer
Networking	-	-	Lecture/Web page/Computer

Object-oriented Design	35	Perform object-oriented programming	Lecture/Web page/Computer
Developing Mobile Applications	70-73	-	Lecture/Web page/Computer
Gaming and Simulation (Interactive 2D and 3D multiplayer games)	59-69	-	Lecture/Web page/Computer
2020 Great Computer Challenge at ODU	30-32	-	Prep Sessions/Web page/Computer
Java Generics and Collection Classes Creating a resume, oral presentations, Software Professional Portfolio (GitHub) Diversity and underrepresentation in IT	85-88	-	Lecture/Web page/Computer