

Introduction To Robot Programming

RPB1-YMSM-F212 Course Syllabus

DAY #	SESSION	TIME	ACTIVITY	TOPIC	EST. TIME
Day 1	Session 1	2 hours	Introduction	Introductions. Course and learning outcomes overview.	
			Chapter 1	YRC1000Micro Startup and Shutdown	20 min
			Chapter 2	Smart Pendant	20 min
			Chapter 3	Smart Pendant Screen	20 min
			Chapter 4	Jogging Basics and Coordinate Systems	1 hour
	Break	10 min			
	Session 2	2 hours	Quiz 1	Chapters 1-4	15 min
			Chapter 5	Alarms and Errors	15 min
			Chapter 6	Home Position	30 min
			Chapter 7	Job Creation	1 hour
	Lunch Break	45 min			
	Session 3	2 hours	Quiz 2	Chapters 5-7	15 min
			Chapter 8	Path Creation	15 min
			Drawing Lab Part 1	Joint and Linear Moves	1.5 hours
	Break	10 min			
	Session 4	2 hours	Drawing Lab Part 2	Circular and Spline Moves	2 hours
Day 2	Session 1	2 hours	Quiz 3	Chapter 8	15 min
			Chapter 9	Path Confirmation and Playback	30 min
			Chapter 10	Copy, Delete, and Rename a Job	30 min
			Chapter 11	Job Editing	30 min
			Chapter 12	Speed Editing	15 min
	Break	10 min			
	Session 2	2 hours	Quiz 4	Chapters 9-12	15 min
			Chapter 13	User Frame Creation	1 hour
			Chapter 14	Monitoring Inputs and Outputs	15 min

			Chapter 15	I/O Instructions	30 min
	Lunch Break	45 min			
	Session 3	2 hours	Quiz 5	Chapters 13-15	15 min
			I/O Pendant Lab Part 1	I/O Basics	1.75 hours
	Break	10 min			
	Session 4	2 hours	Start Chapter 16	Call/Return functions	15 min
			I/O Pendant Lab Part 2	I/O Incorporating Nested Jobs	1.75 hours
Day 3	Session 1	2 hours	Quiz 6	Chapters 15-16	15 min
			Continue Chapter 16	Jump, Pause, Set User Alarm	15 min
			I/O Pendant Lab Part 3	Infinite Loops	1.5 hours
	Break	10 min			
	Session 2	2 hours	Chapter 17	Arithmetic Variables and Instructions	2 hours
	Lunch Break	45 min			
	Session 3	2 hours	Quiz 7	Chapter 17	15 min
			Chapter 18	Position Variables	1.75 hours
	Break	10 min			
	Session 4	2 hours	Quiz 8	Chapter 18	15 min
			Chapter 19	Temporary Shift Instructions	1.25 hours
			Stacking Exercise	Demonstrate shifting	30 min
Day 4	Session 1	2 hours	Quiz 9	Chapter 19	15 min
			Start Palletizing Lab	Basic Palletizing	1.75 hours
	Break	10 min			
	Session 2	2 hours	Finish Palletizing Lab		2 hours
	Lunch Break	45 min			
	Session 3	2 hours	Conveyor Lab	Palletizing with the incorporation of a conveyor	2 hours
	Break	10 min			
	Session 4	2 hours	Final Exam	Chapters 1-19	2 hours
				Total Contact Time	32 hours