

ONLINE LEARNING FOR TECHNOLOGY TRAINING

Intelitek online curriculum use simulation tools and multiple instructional strategies to provide a solution for virtual technical career instruction.

Content is the most critical component of any e-learning experience. The quality and effectiveness of the content is instrumental in driving student engagement and learning success.

With over 2500 hours of online content and a cloud-based learning management system, LearnMate from Intelitek enables real-time learning in a virtual lab setting. Using online simulation, students can learn hands-on virtually as if they were in the lab with real equipment. Intelitek's hybrid, standards based curriculum, deliver instruction in a format remote online digital learners thrive in: blended learning with interactive online delivery, simulations and team-based activities.

UNIQUE SIMULATED LABS

Intelitek eLearning curriculum provide a blended learning ecosystem, combining interactive simulation with world-class instruction. The virtual labs to provide the most engaging learning environment for students who are remote from their educational institution.

Virtual courses consist of 100% on-line, on-demand e-learning with interactive simulations that deliver relevant skills for students. By using virtual courses, you can reach more students and cover more subjects enabling accessibility by ensuring there is always a virtual machine for every student and accommodating any budget by reducing hardware costs.

Virtual eLearning Content - Powered by LearnMate®

SUPPORTS REMOTE ONLINE LEARNING AND REMOTE LABS

LearnMate is a cloud-based SaaS application that can be accessed by teachers and students from anywhere. Students can also install the LearnMate simulation agent and Intelitek simulation software like RoboCell, CNCMotion, PneuMotion and others to complete not only the curriculum content, but also the hands on practical exercises without being physically in the classroom. Teachers can launch live classroom sessions to interact with remote students.

DELIVER ROBUST AND RELEVANT EDUCATION IN A FORMAT THAT ENGAGES DIGITAL-NATIVE STUDENTS

Intelitek's e-learning delivers concepts through relevant activities and projects. Our hybrid standards-based curriculum deliver instruction in a format today's digital learners thrive in: blended learning with interactive online delivery, simulations and team-based activities.

PROVIDE AN IMMERSIVE INSTRUCTIONAL EXPERIENCE WITH PROJECT-BASED LEARNING

Project-based learning is an essential learning strategy throughout our content. Using authentic activities, scenarios and projects, Intelitek's e-learning content creates an educational experience that is relevant to students and the jobs they will fill when they graduate. Students develop communication, teamwork and leadership skills while learning core principles and relevant skills.

FLEXIBLE CURRICULUM PROVIDES DIFFERENTIATED INSTRUCTION FOR DIVERSE LEARNERS

Multiple instructional strategies enable students with varying knowledge, ability and interests to become active and involved. Exciting scenarios immerse students, reinforce concepts and help connect the educational experience with relevant interests in the world around them.

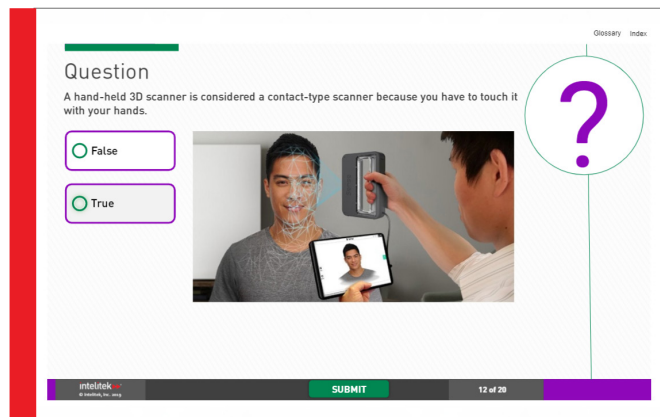
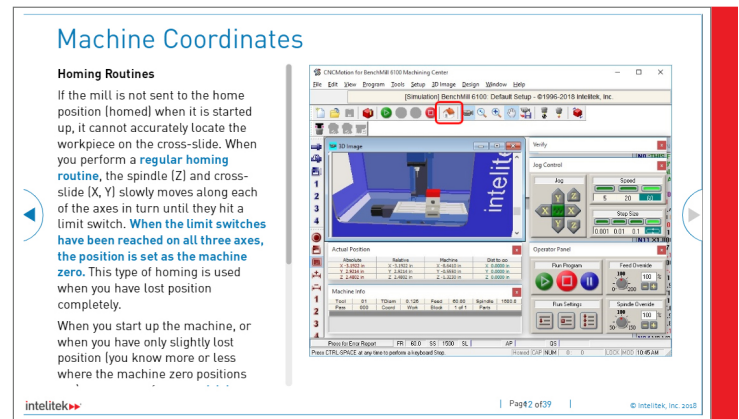
EMPOWERS TEACHERS TO SUCCEED

LearnMate is designed for educators and automates time-consuming class administration, freeing teachers to focus on teaching, and better equipped to recognize and adapt to individual student needs. LearnMate provides meaningful assessment and real-time feedback on student progress, providing teachers the valuable information that enables differentiated teaching methods.

Included with all courseware are program requirements, detailed outlines, teacher guides, and assessment details including sample solutions and program code.

REMOTE CONTENT DELIVERY

- Accessible from anywhere - LearnMate is browser based and online content is SCORM-compliant, AICC-compliant and supports IMS Learning Tools Interoperability (LTI)
- Advanced LMS Includes:
 - Assessments
 - Assignments
 - Multi-lingual support
 - Certificates
 - Software launch directly from content
 - Social and Collaborative tools
 - Accessible resources for users
 - Task-specific instructions
 - Files for downloading
 - Video demos
 - Glossaries



ONLINE ASSESSMENT DELIVERY

- Secure assessment environment
- Shuffling of questions and answers
- Multiple question types
- Optional feedback for responses
- Use of all types of media in question stems, responses, and feedback

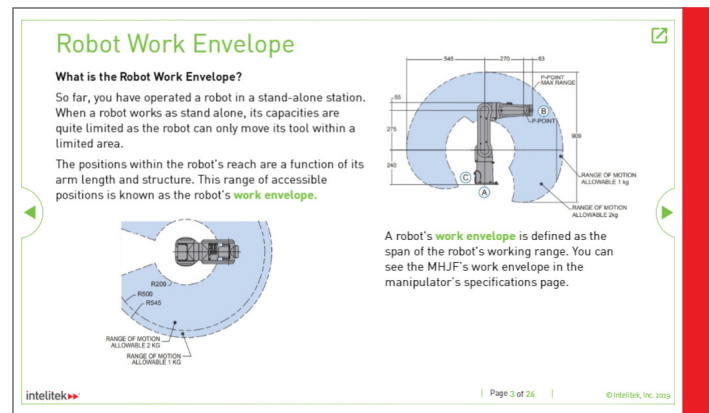
Enhanced Experience for Students with Simulated Labs

To be effective, CTE eLearning needs to provide hands-on, practical experience. Intelitek cloud based eLearning integrates virtual labs to provide the most engaging learning environment for students even if they are physically remote.

Our creative team, pedagogic instructional designers, programmers and subject matter experts have developed interactive programs combining rich media content, digital simulations, projects, exercises, online lab projects and assessments to guide students through the learning process completely online.

VIRTUAL CLASSROOM MANAGEMENT

- Easy Course Administration
- Easy Student Self-enrollment
- Robust Gradebook
- Flexible User Groups
- Outcomes management
- Reports



FOUNDATIONS OF MANUFACTURING

Catalog #	Course Name	Virtual	Simulation	Industry S/W
77-3096-0000	Introduction to Advanced Manufacturing <i>Introduces the student to the manufacturing industry and its associated career paths. Students learn how manufacturing companies operate, about common manufacturing technologies and the use of computers and automation in manufacturing.</i>	Yes		
77-3097-0000	Employability <i>Course prepares students with the skills required to apply for, and succeed in their first job. Topics such as setting career goals, résumé preparation, interview skills, basic employment skills like time management, teamwork, communication, conflict resolution, and more.</i>	Yes		
77-3109-0000	Introduction to Lean Manufacturing <i>Explores the principles and techniques involved in Lean Manufacturing including minimizing waste in production and improving work flow in industrial processes.</i>	Yes		
77-3202-0000	Safety Fundamentals <i>Introduces students to important safety fundamentals regarding regulations, policies, equipment, procedures, training and students then learn techniques on how to make the work environment safer and how to protect themselves.</i>	Yes		
77-8014-0001	Mechanical Measurement and Quality Control (Imperial) <i>Mechanical Measurement and Quality Control gives students a solid foundation how to use precision measurement tools, gain proficiency in reading mechanical drawings, selecting the proper tools for inspecting parts and prepare quality control/inspection reports.</i>	Yes		
77-8014-0002	Mechanical Measurement and Quality Control (Metric) <i>Mechanical Measurement and Quality Control gives students a solid foundation how to use precision measurement tools, gain proficiency in reading mechanical drawings, selecting the proper tools for inspecting parts and prepare quality control/inspection reports.</i>	Yes		
77-BA01A-0001	Mathematics for Technicians I <i>Designed to equip technicians with the math skills they are likely to need on a daily basis, including arithmetic and algebra, types of numbers, percentages, ratios and proportions, systems of measurement, geometry, and trigonometry.</i>	Yes		
77-BA01B-0001	Mathematics for Technicians II <i>Mathematics 2 applies advanced mathematics concepts to everyday tasks. Through interactive activities students learn about drive ratios, Ohm's Law, mechanical principles, and how these concepts apply in the engineering and industrial environments</i>	Yes		
77-BA02-0001	Mechanical Blueprint Reading <i>Students learn all aspects of reading and interpreting blueprints in engineering and industrial environments, including views, tolerances, cutting planes, thread dimensions, and welding symbols.</i>	Yes		
77-BA03-0001	Lubrication for Technicians <i>Students learn about lubrication equipment, application methods, lubrication schedules, special purpose greases, synthetic lubricants, packing bearings and more.</i>	Yes		
77-BA04-0001	Mechanical Fasteners <i>Through activities, students identify and work with the many types of fasteners used in engineering and industrial environments. Optional h/w package for hands on blended learning activities.</i>	Yes		
77-BA05-0001	Hand Tools <i>Through activities, students learn all aspects of using hand tools. An optional h/w package is available with all the tools covered in the activities.</i>	Yes		
77-BA06-0001	Power Tools <i>Through activities, students learn all aspects of using power tools. An optional h/w package is available with all the tools covered in the activities.</i>	Yes		
77-LOTO-0000	LOTO: Industrial Safety - Lockout/Tagout <i>Lockout/tagout procedures are critical in creating a safe work environment. Students learn all aspects of lockout/tagout procedures in industrial environments.</i>	Yes		

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MACHINING

Catalog #	Course Name	Virtual	Simulation	Industry S/W
77-3004-0001	CAD with spectraCAD Engraver (Imperial) <i>Teaches students how to create and modify CAD drawings in a CAD-CAM environment and how to navigate features and commands that are common to most CAD software applications.</i>	Yes	SpectraCAD	
77-3004-0002	CAD with spectraCAD Engraver (Metric) <i>Teaches students how to create and modify CAD drawings in a CAD-CAM environment and how to navigate features and commands that are common to most CAD software applications.</i>	Yes	SpectraCAD	
77-3005-0001	CAM Milling with spectraCAM Milling (Imperial) <i>Introduces students to the fundamentals of CAM programs and converting CAD drawings into numerical control (NC) files for a CNC. Students learn toolpath generation, contouring, engraving, pocketing, machining operations, and code generation.</i>	Yes	SpectraCAM	
77-3005-0002	CAM Milling with spectraCAM Milling (Metric) <i>Introduces students to the fundamentals of CAM programs and converting CAD drawings into numerical control (NC) files for a CNC. Students learn toolpath generation, contouring, engraving, pocketing, machining operations, and code generation.</i>	Yes	SpectraCAM	
77-3007-0001	CAM Turning with spectraCAM Turning (Imperial) <i>Introduces students to the fundamentals of CAM programs and converting CAD drawings into numerical control (NC) files for a CNC. Focus on turning-related cutting operations such as roughing, facing, grooving, threading, cut-off procedures and code generation.</i>	Yes	SpectraCAM	
77-3007-0002	CAM Turning with spectraCAM Turning (Metric) <i>Introduces students to the fundamentals of CAM programs and converting CAD drawings into numerical control (NC) files for a CNC. Focus on turning-related cutting operations such as roughing, facing, grooving, threading, cut-off procedures and code generation.</i>	Yes	SpectraCAM	
77-3147-0000	CNC Milling Technology with the BenchMill <i>Introduces students to the fundamentals of CNC (Computer Numerical Control) milling. Using simulation, students design solutions with an emphasis on real industrial concerns, such as optimized programming, accurate milling and increased productivity.</i>	Yes	CNCMotion	
77-3148-0000	CNC Turning Technology with the BenchTurn <i>Introduces students to the fundamentals of CNC (Computer Numerical Control) turning through a series of projects with increasing complexity, job setup, drawing construction, tool path generation, tool path verification and NC code generation.</i>	Yes	CNCMotion	
77-8057-0000	Plastics Technology <i>Provides students with virtual hands-on experience combining various materials and processes to manufacture plastic part with six different plastic forming processes: Vacuum Forming, Dome Blowing, Welding, Dip Coating, Injection Molding and Extrusion.</i>			
77-8160-0001	Introduction to CNC Routers with VCarve Pro <i>Project driven course that enables students to bring objects they create to life quickly. They will learn terminology related to CNC, setting up the router using Mach3™ control software and do five projects using Vectric VCarve Pro to produce amazing results.</i>		VCarve Pro	VCarve Pro
77-7001-0001	LearnMate Project: Yo-Yo Project			
77-7006-0001	LearnMate Project: Precision Measuring Device			
77-7007-0001	LearnMate Project: Golf Putter Project			
77-7016-0001	LearnMate Project: CO2 Car Project			

PROCESS CONTROL

Catalog #	Course Name	Virtual	Simulation	Industry S/W
77-3041-0002	Process Control: Temperature <i>Students study the control of temperature processes using open loop, on/off loop and three-element (PID) control methods and the measurement and control of heat exchanger and heated tank processes. Covers the fundamentals of instrumentation and industrial process control.</i>	Yes	ProcessMotion	
77-3043-0002	Process Control: Flow <i>Students study the control of liquid flow processes using open loop, on/off loop and three-element (PID) control methods and how to raise and lower water flow rates to preset levels using manual control and auto-tuning methods. Covers the fundamentals of instrumentation and industrial process control.</i>	Yes	ProcessMotion	
77-3044-0002	Process Control: Pressure <i>Students study the control of liquid level using open loop, on/off loop and three-element (PID) control methods and the measurement and control to raise and lower water to preset levels using manual control and auto-tuning methods. Covers the fundamentals of instrumentation and industrial process control.</i>	Yes	ProcessMotion	
77-3045-0002	Process Control: Level <i>Students study the control of pressure processes using open loop, on/off loop and three-element (PID) control methods and how to raise and lower air pressure to preset levels. Covers the fundamentals of instrumentation and industrial process control.</i>	Yes	ProcessMotion	

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AUTOMATION/MECHATRONICS

Catalog #	Course Name	Virtual	Simulation	Industry S/W
77-8070-0010	Pneumatics 1: Fundamentals of Pneumatics with JMTS <i>Introduces the principles of pneumatics and pneumatically controlled systems commonly used in automated manufacturing environments.</i>	Yes	PneuMotion	
77-8070-0020	Pneumatics 2: Advanced Pneumatics with JMTS <i>Introduces students to advanced principles and components of pneumatics. Students are introduced to timing diagrams and the logic functions AND and OR, and implement them in pneumatic circuits.</i>	Yes	PneuMotion	
77-8070-0030	Pneumatics 3: Electro-pneumatics with JMTS <i>Introduces the fundamentals of electro-pneumatic controlled systems (pneumatic systems controlled electrically) and electric/electro-pneumatic components such as switches, relays, timers, electrical push buttons, solenoid operated valves and proximity sensors.</i>	Yes	PneuMotion	
77-8071-0010	Hydraulics 1: Fundamentals of Hydraulics with JMTS <i>Introduces students to the principles of hydraulics and the use of fluid power in automated manufacturing environments. Students use software to create, modify, operate and observe simulated hydraulic and electro-hydraulic devices and circuits.</i>	Yes	HydraMotion	
77-8071-0020	Hydraulics 2: Fundamentals of Electro-hydraulics with JMTS <i>Introduce students to the principles of electro-hydraulics. Students use software to create, modify, operate and observe simulated hydraulic and electro-hydraulic devices and circuits. Electro-hydraulic systems use electrical circuits to operate hydraulic components.</i>	Yes	HydraMotion	
77-8071-0030	Hydraulics 3: Advanced Hydraulics and Electro-hydraulics with JMTS <i>Introduces students to the function and operation of advanced components and circuits involving switches, relays, timers, electrical push buttons, solenoid operated valves and proximity sensors and how to connect circuits by reading schematic diagrams</i>	Yes	HydraMotion	
77-8210-0010	PLC 1: Fundamentals of Ladder Logic with A/B MicroLogix 1100 <i>Students learn how to program and use PLCs in industrial applications that require electrical control. Students program a PLC and simulate industrial applications including the testing of input and output responses to ladder diagrams students program</i>	Yes	PLCMotion	
77-8210-0020	PLC 2: Advanced Ladder Logic with A/B MicroLogix 1100 <i>Focuses on advanced PLC programming. The graphic simulation software enables students to test and correct control programs both online and offline.</i>	Yes	PLCMotion	
77-8210-0030	PLC 3: PLC-Controlled Pneumatic Systems with A/B MicroLogix 1100 <i>Students learn how to control pneumatic systems using a PLC. Pneumatic terminology is introduced and explained, and the student simulates the operation of pneumatic components.</i>	Yes	PLCMotion	
77-8210-0040	PLC 4: PLC-Controlled Hydraulic Systems with A/B MicroLogix 1100 <i>Students learn how to control hydraulic systems using a PLC. Hydraulic terminology is introduced and explained, and the student simulates the operation of hydraulic components.</i>	Yes	PLCMotion	
77-8220-0010	PLC 1: Fundamentals of Ladder Logic with Siemens S7-1200 <i>Students learn how to program and use PLCs in industrial applications that require electrical control. Students program a PLC and simulate industrial applications including the testing of input and output responses to ladder diagrams students program</i>	Yes		Siemens STEP7
77-8220-0020	PLC 2: Advanced Ladder Logic with Siemens S7-1200 <i>Focuses on advanced PLC programming. The graphic simulation software enables students to test and correct control programs both online and offline.</i>	Yes		Siemens STEP7
77-8220-0030	PLC 3: PLC-Controlled Pneumatic Systems with Siemens S7-1200 <i>Students learn how to control pneumatic systems using a PLC. Pneumatic terminology is introduced and explained, and the student simulates the operation of pneumatic components.</i>	Yes		Siemens STEP7
77-8220-0040	PLC 4: PLC-Controlled Hydraulic Systems with Siemens S7-1200 <i>Students learn how to control hydraulic systems using a PLC. Hydraulic terminology is introduced and explained, and the student simulates the operation of hydraulic components.</i>	Yes		Siemens STEP7

FMS/CIM

Catalog #	Course Name	Virtual	Simulation	Industry S/W
77-3015-0000	Computer Integrated Manufacturing 1 <i>Introduces the concepts, procedures and key stages of CIM production. Students learn about the CIM production cycle, from customer order and inventory control, through automated manufacturing of materials into finished parts, to quality inspection and final delivery..</i>	Yes	OpenCIM	Optional
77-3016-0000	Computer Integrated Manufacturing 2 <i>Activities include mass production, robotic systems, location planning, QC devices, part feeding, assembly, purchasing orders, MRP and CIM databases. Students design, set up and operate CIM cells and collect the data before, during and after production..</i>	Yes	OpenCIM	Optional
77-3022-0000	Flexible Manufacturing Systems <i>Introduces students to automation and industrial applications by combining CNC technology with robotics and materials handling. Students develop and edit programs, record precise robotic positions, accurately mill parts, and synchronize mill and robot operation..</i>	Yes	OpenFMS	Optional

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ROBOTICS

Catalog #	Course Name	Virtual	Simulation	Industry S/W
77-3046-0000	Fundamentals of Robotics for SCORBOT-ER 4u <i>Students gain experience and skill in robotic operation and programming through simulation software Students learn to operate, maintain, program and test robotic systems. Activities challenge students to design solutions for industrial robotic applications..</i>	Yes	RoboCell	
77-3048-0000	Advanced Robotic Programming with SCORBOT-ER 4u <i>Advanced Robotic Programming module further explores robotic programming and gives the students a greater understanding of the robotics concepts and programming commands as well as a greater understanding of robot capabilities.</i>	Yes	RoboCell	
77-8082-0000	Robotics and Material Handling 1 with SCORBOT-ER 4u <i>Students learn to operate, maintain, program and test robotic systems. Students develop and write robot programs and design solutions for industrial robotic applications.</i>	Yes	RoboCell	
77-8083-0000	Robotics and Material Handling 2 with SCORBOT-ER 4u <i>Students explore robotic simulations and it's advantages. Activities challenge students to design solutions for industrial applications, with an emphasis on real industrial concerns, such as recording accurate positions, optimizing programming and increasing productivity.</i>	Yes	RoboCell	
77-5001-0000	Fundamentals of Robotics Motoman MHJF <i>Students gain experience and skill in robotic operation and programming through simulation software Students learn to operate, maintain, program and test robotic systems. Activities challenge students to design solutions for industrial robotic applications..</i>	Yes	RoboCell	Yaskawa MotoSIM
77-5002-0000	Advanced Robotic Programming Motoman MHJF <i>Advanced Robotic Programming module further explores robotic programming and gives the students a greater understanding of the robotics concepts and programming commands as well as a greater understanding of robot capabilities..</i>	Yes	RoboCell	Yaskawa MotoSIM
77-5003-0000	Robotics and Material Handling I Motoman MHJF <i>Students learn to operate, maintain, program and test robotic systems. Students develop and write robot programs and design solutions for industrial robotic applications.</i>	Yes	RoboCell	Yaskawa MotoSIM
77-5004-0000	Robotics and Material Handling II Motoman MHJF <i>Students explore robotic simulations and it's advantages. Activities challenge students to design solutions for industrial applications, with an emphasis on real industrial concerns, such as recording accurate positions, optimizing programming and increasing productivity.</i>	Yes	RoboCell	Yaskawa MotoSIM
77-5005-0000	Fundamentals of Robotics Motoman YRC <i>Students gain experience and skill in robotic operation and programming through simulation software Students learn to operate, maintain, program and test robotic systems. Activities challenge students to design solutions for industrial robotic applications..</i>	Yes	RoboCell	Yaskawa MotoSIM
77-5006-0000	Advanced Robotic Programming Motoman YRC <i>Advanced Robotic Programming module further explores robotic programming and gives the students a greater understanding of the robotics concepts and programming commands as well as a greater understanding of robot capabilities..</i>	Yes	RoboCell	Yaskawa MotoSIM
77-8401-0001	RobotExpert, Introduction to Manufacturing Processes <i>Students learn how to use this full-featured program and observe how it enables manufacturers to optimize their production processes while eliminating waste and extra costs.</i>	Yes		Siemens RobotExpert
77-8401-0001	RobotExpert, Advanced Manufacturing Processes <i>Students learn how to use this full-featured program and observe how it enables manufacturers to optimize their production processes while eliminating waste and extra costs.</i>	Yes		Siemens RobotExpert
77-8087-0000	Machine Vision and Quality Control with Cognex In-Sight 2000 (Lab #1) <i>This course uses Cognex In-Sight Explorer software to teach machine vision concepts. Students learn to operate and program the cameras to provide the image interpretation and visual feedback needed for vision systems.</i>			Cognex Insight 2000
77-8089-0000	Machine Vision and Quality Control with Cognex In-Sight 2000 (Lab #2) <i>Advanced course uses Cognex In-Sight Explorer software to teach machine vision concepts. Advanced Lab projects</i>			Cognex Insight 2000
77-3030-0000	Machine Vision and Quality Control with Cognex In-Sight 2000 (Virtual) <i>This course uses Cognex In-Sight Explorer software to teach machine vision concepts. Students learn to operate and program the technology and connect emulated cameras to provide the image interpretation and visual feedback needed for vision systems.</i>	Yes		Cognex Insight 2000
77-3001-0000	Automated Welding with SCORBOT-ER 4u (Virtual) <i>Students discover robotic welding fundamentals working through the entire welding process in simulation. Activities challenge students to develop solutions for common welding problems, such as thermal deformation, by adjusting their welding technique.</i>	Yes	RoboCell	
77-7004-0001	LearnMate Project: Pneumatic Feeder Project			
77-7005-0001	LearnMate Project: Shape Sorter Project			
77-7005-0018	LearnMate Project: Robotics & Automation Project			

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STEM PATHWAYS

Catalog #	Course Name	Virtual	Simulation	Industry S/W
77-3095-0000	Introduction to Engineering <i>Introduction to Engineering provides students an excellent overview of the field of engineering. This 20-hour course engages students with topics such as an overview of the history of engineering, career choices and the engineering design process.</i>	Yes		
77-8154-0001	Introduction to Industrial Design <i>Students are introduced to industrial design. They redesign a product, learn and practice technical drawing techniques, and learn how products are made. They explore reverse engineering, patents, as well as about engineering notebooks..</i>	Yes		
77-7027-0001	Engineering Application Series (EAS) <i>A collection of fun and exciting problem-based learning opportunities. EAS provides students the opportunity to master critical academic, workplace, and life skills while solving real-world challenges.</i>	Yes		Yes
77-3065-0000	Mechanisms <i>Students examine various components of mechanisms including gears, pulleys, levers, and more. They create several of these simple machines to observe their operation first-hand.</i>			
77-8136-0001	Introduction to Transportation <i>Students discover how land, air, marine, and space transportation help us move people and materials. They explore various transportation systems, how these systems have improved over time, and how they have affected human advancement. .</i>	Yes		
77-8136-0002	Aerospace <i>Students are introduced to the aerospace industry and many of the fields that comprise and are associated with it. This includes a history, a look at the industries surrounding them, and descriptions of the environments [air and space] these vehicles travel in. .</i>	Yes		
77-8136-0003	Aviation <i>Students learn aviation principles and study the different forms of navigation. Students use a flight simulator to test flight physics and gain hands-on experience with flight control and navigation..</i>			
77-8136-0004	Research & Design for Automotive <i>Students explore and apply the principles of design. Student examine fundamentals of automobile design, such as aerodynamics and energy efficiency with hands-on activities to explore the process used in industry to produce a marketable product.</i>			
77-8150-0001	Introduction to Communications <i>In this course to graphic communications, students will focus on visual and graphic media. Informational content includes the history of various types of media and their impact on society.</i>	Yes		Yes
77-8151-0001	Digital Video Editing <i>This course involves the study of digital video editing, including tools and practices commonly used by professional video editors.</i>	Yes		Yes
77-8152-0001	Digital Photo Editing <i>Digital Photo Editing focuses on procedures for editing and manipulating digital photographs using image-editing software. .</i>	Yes		Yes
77-8153-0001	Graphic Design <i>The course involves the study of the elements of design and how to create those elements via a computer graphics program. The students will use this to design their own images.</i>	Yes		Yes
77-3096-0000	Introduction to Advanced Manufacturing <i>Introduces the student to the manufacturing industry and its associated career paths. Students learn how manufacturing companies operate, about common manufacturing technologies and the use of computers and automation in manufacturing.</i>	Yes		
77-3099-0000	Rapid Prototyping <i>Includes a comprehensive overview of the history of rapid prototyping, current and emerging technologies and career choices in the field; multi-level activities including creating prototypes from specifications using various rapid technologies.</i>	Yes		Yes
77-3004-0001	CAD with spectraCAD Engraver (Imperial) <i>Teaches students how to create and modify CAD drawings in a CAD-CAM environment and how to navigate features and commands that are common to most CAD software applications.</i>	Yes	SpectraCAD	
77-8157-0000	Introduction to 3D Printing <i>Introduction to 3D Printing equips students with the knowledge and skills necessary to print their own or ready-made 3D models on an FDM 3D printer.</i>			
77-8159-0000	Introduction to 3D Scanning <i>This course explores the basics of 3D scanning. Students will learn about the fundamentals of the technology, as well as techniques, best practices, and tips for optimal scanning.</i>			

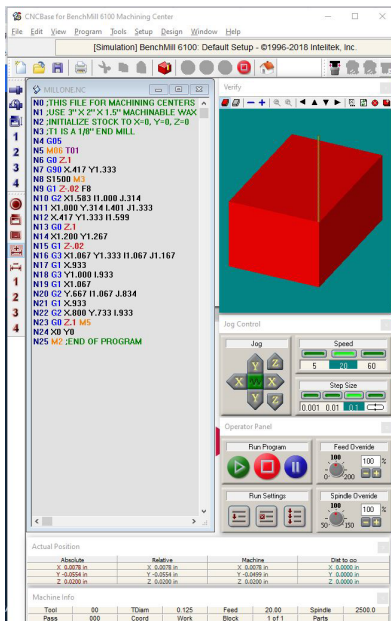
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STEM

Catalog #	Course Name	Virtual	Simulation	Industry S/W
77-3019-0000	Fundamentals of Electronics	Yes		
77-3020-0000	Advanced Electronics	Yes		
77-3021-0000	Fiber Optics	Yes		
77-3029-0000	Materials Testing	Yes		
77-3095-0000	Introduction to Engineering	Yes		
77-8046-0000	Electrical Systems	Yes		
77-8110-0001	Green Technology Prerequisite			
77-8110-0002	Alternative Energy			
77-8110-0003	Green Transportation			
77-8110-0004	Green Construction			
77-8110-0005	Resource Conservation			
77-8137-0000	Biotechnology			
77-8138-0000	Health Care			
77-8115-0010	REC Unit 1 with Vex V5: Introduction to Robotics			VEXCode
77-8115-0020	REC Unit 2 with Vex V5: Introduction to Vex Programming			VEXCode
77-8115-0030	REC Unit 3 for Vex V5: Physics and Robotics			VEXCode
77-8115-0040	REC Unit 4 for Vex V5: Sensors			VEXCode
77-8115-0050	REC Unit 5 with Vex V5: Arms and End Effectors			VEXCode
77-8115-0060	REC Unit 6 for Vex V5: REC 1 Project			VEXCode

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Examples of online learning content and machine simulation software in action

Dashboard / Courses / Content in English / Robotics / Industrial Robotics / Courses with Yaskawa MPP / Advanced Robotics Programming with MPP / Course Content / Activity 3: Digital Inputs

Activity 3: Digital Inputs

Glossary Index

Inputs and Outputs

Input Signals

Input signals received by the controller provide it with information about the robot's environment. The controller can be programmed to respond according to the state (ON or OFF) of these input signals.

For example, if an input signal ON is received from the parts feeder, it could mean that a part is currently available at the feeder, and the robot can then move to the feeder to pick up the part. If an input OFF signal is received from the feeder, it could mean that parts are currently unavailable at the feeder.

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Intelitek Learning Solutions

Intelitek transforms education across the globe with comprehensive technology learning solutions. Our innovative tools and technologies empower instructors and inspire students to improve the world around them. We understand the changing needs of your career and technology classrooms and design flexible solutions that meet those needs.

With sustainable support and professional development to ensure the continued success of your programs, Intelitek programs deliver the competencies needed for in-demand careers.

At Intelitek we are producing results for students, teachers, nations and economies.