

Steamfitters MES(HVAC) Journeyman Advancement Training Schedule 2021/2022 email JATRegistration@lu420.com



2021	Monday		Tuesday			Wednesday			Thursday		
	Track 1	Track 2	Controls	Misc	REF	Track 3	Misc	Track 4	Misc	Controls	Boiler\Brnr
Week 1: 9/13 - 9/17	MESJ-101	TD-101*	CT-101		REF-101	MESJ-201	VRF-101	MESJ-202W	SM-101	CTRID-100	BB-102
Week 2: 9/20 - 9/24											
Week 3: 9/27- 10/1											
Week 4: 10/4 -10/8			LU420 MTG: No Class							CT-105-C	
week 5: 10/11 - 10/15											
week 6: 10/18 - 10/22		AL-101 *									
week 7: 10/25 - 10/29		MESJ-103			REF-102	MESJ-202A					
week 8: 11/1 - 11/5	LU420 MTG/No Class		Election Day: No Class								
week 9: 11/8 - 11/12											
week 10: 11/15 - 11/19										CT-105-O	
week 11: 11/22 - 11/26			CT-102						Thanksgiving		
week 12: 11/29 - 12/3		MESJ-104	LU420 MTG: No Class				NFPA-70E				
week 13: 12/6 - 12/10				CT-107							
week 14: 12/13 - 12/17	EPA-Update									(cont)	
week 15: 12/20 - 12/24			(cont)							Christmas Eve	

Steamfitters MES(HVAC) Journeyman Advancement Training Schedule Spring 2022

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	Track 1	Track 2	Controls Track	Misc	REF	Track 3	Misc	Track 4	Misc	Controls	Boiler\Brnr
week 16: 1/3 - 1/7	CP-101	MESJ-105	LU420 MTG: No Class			VFD-102		MESJ-205W	SS-101		BB-103
week 17: 1/10 - 1/14					REF-103						
week 18: 1/17 - 1/21											
week 19: 1/24 - 1/38		MESJ-106				EPA-Update				CT-106	
week 20: 1/31 - 2/4			LU420 MTG: No Class			MESJ-205A					
week 21: 2/7 - 2/11			CT-103	CT-110							
week 22: 2/14 - 2/18		MESJ-107							TD-Screw	CT-108	
week 23: 2/21 - 2/25											
week 24: 2/28 - 3/4	MESJ-102	MESJ-ID-2	LU420 MTG: No Class								
week 25: 3/7 - 3/11		VFD-101			REF-104						
week 26: 3/14 - 3/18											
week 27: 3/21 - 3/25											
week 28: 3/28 - 4/1									PF-101		
week 29: 4/4 - 4/10	MESJ-ID-1	Chiller Ref Update	LU420 MTG: No Class								
week 30: 4/11 - 4/15		VIB-101-a *									
week 31: 4/18 - 4/22	PT-101	VIB-101-b *	CT-102 VAV								
week 32: 4/25 - 4/29		VIB-101-c *	(5 nights)								
week 33: 5/2 - 5/6		VIB-101-d *	LU420 MTG: No Class								

Request Classes or information @ JATRegistration@LU420.com

Teardowns(Saturdays) to sign up email: JATRegistration@LU420.com

Please see flip side for course descriptions / nights credits, etc. *** Please watch for updates at LU420.com training page

School phone number (267) 350 - 2610

* - AL101 also includes an additional hands on classes for alignment and vibration analysis. Dates TBD by instructor with class

2021-2022 Steamfitter Journeymen Training Course Descriptions

please check LU420.com Training page for Schedule & Course description updates

email JATRegistration@lu420.com with questions & to request courses

School Phone (267) 350 - 2610



Track #1 Required Classes (see NFPA-70E LV Training)

MESJ-101	Fundamentals for Journeymen Advanced Training
PT-101	Performance Testing Fundamentals for Airside & DX Unitary Systems
CP101	Basic Controls & Pneumatic (see description below)
MESJ-102	Motors, Starters & Diagrams, Circuit Protection, etc.
EPA-Update	Overview & Safety use of various refrigerants in Refrigeration related systems
MESJ-ID-1	course for to secure your future with the ability to Identify & Develop opportunities related to Track #1 & #2(credited nights for all / NOT required if ID-101 was completed)

Track #2 Required Classes (see NFPA-70E LV Training)

TD-101	Tear-down Fundamentals: Dimensions, Tolerances, Clearances & Fits along with the basic fundamentals of Rigging and Tear-down Disassembly & Analysis
	* One Tear down class (OT, YK, CVHE or 19XL) is required for completion of Tracks 1 & 2
AL101	Hands on use of dimensions, tolerances & instruments & alignment of shafts including an overview/intro to reverse alignment, vibration & laser alignment.
	* NOTE: two hands on evening classes need to be scheduled as an add to this class
MESJ-103	Fundamentals of Single & Double effect Absorption Chillers
MESJ-104	Centrifugal Chiller Fundamentals
MESJ-105	Centrifugal Chiller monthly & annual maintenance
MESJ-106	Chiller Microprocessor & controls fundamentals
MESJ-107	Oilless VFD compressors: Overview & Intro
VFD101	VFD Course is a new course combining the generic fundamentals of how PWM VFDs operate including semi-conductors, specific parameters of a couple of VFD brands installation requirements, start-up, commissioning & troubleshooting.
Chiller Ref Upda	Chiller Ref Update: new regs & update on Chiller Refrigerants
MESJ-ID-2	Identify & Develop chiller & related system opportunities
VIB-101	combined classroom overview and shop demonstration of vibration analysis
NFPA-70E LVT	LV(<600V) Training for NFPA-70E *NOT REQ IF ALREADY TAKEN (but nites count for JAT)

Track #3 (Optional nites: SS-101, PF-101, etc.)

MESJ-201	Science, Physics & Math fundamentals Overview for Start Test & Balance
MESJ-202A	MESJ-202A Course includes intermediate training: Airside Start, Test & Balance
MESJ-205A	MESJ-205A Course Advanced Airside Start, Test & Balance

Track #4 (Optional nites: SS-101, PF-101, etc.)

MESJ-202W	MESJ-202W Course includes intermediate training: Waterside Start, Test & Balance
MESJ-205W	MESJ-205W Course Advanced Waterside Start, Test & Balance

Boilers-Burners-Combustion, etc.

BB101	BB101 Course Boiler-Burner & Combustion fundamentals Training, etc.
BB102	BB102 Course intermediate Boiler-Burner & Combustion Training, etc.
BB103	BB103 Course includes advanced Boiler-Burner & Combustion Training, etc.

Night Count Requirements for JAT's & Controls Courses

Tracks#1-4 require JAT classes and others totaling of 31 nights each track.	
JAT-1: 62 nights JAT-2: 62 nights Saturday =2.5 nights	
Controls Track require CT-xxx classes and others total of 93 nights for EI(31),EII(31) & EIII(31)	

Controls

CP101	Basic Controls & Pneumatic course is the prerequisite for the Controls courses and MESJ courses. Electric, Electronic, Pneumatic and basic PID control is covered with appropriate electrical fundamentals.
CTrid-100	Fundamentals of Tridium Base Control Systems
CT101	PRE-REQ: CP-101 Controls Intro includes history & hierarchy, generic hardware (INs & OUTs) & software(algorithms). An overview of Unitary & Programmable control types, Application Specific Controllers, and network communication.
CT102	PRE-REQ: CT-101 Application Specific Controllers(ASC) Unitary, Fan coil, RTU, AHU & Chiller controllers(Carrier & Johnson) incl. specific setup of I\O's, setpoints & schedules, demonstrate associated communication and commissioning software.
CT103	PRE-REQ: CT-102 Programmable Controllers programming blocks; on\off, PID, setpoints & schedules, min\max\avg algorithms, etc. System communication & commissioning and the demonstration of the associated software is included.
CT105-O	Tridium Operations is a short course exploring network controllers, creating and modifying schedules, and navigating and adjusting setpoints and parameters. Creating and viewing trends.
CT105-C	PRE-REQ: CT-103 Tridium Configuration overviews of requirements for Tridium Certification & the config. portion: installing Comm ports, uploading controllers, creation of database, graphics and a sample of custom programming
CT106	PRE-REQ: CT-105-O Intro\Overview to Honeywell Spider intro course: Spider Programmable Controllers: Real Time Internal Clock, Adap Integral Algorithm Integrated Actuator Option, Unitary & VAV Controller
CT107	Intro\Overview to Tracer is a short introductory course exploring Tracer controls.
CT108	Honeywell SpiderII: Level II training: the Spider family of Programmable Controllers
CT110	Computer/Controls Networking & Terminology
REF106	Refrigeration Energy Management System layout and programming, etc.

Miscellaneous Courses

PF101	MESJ Pipefitting Fundamentals is a short course on pipe fitting fundamentals and fundamental math required for offsets, etc.
SM101	Service Management/Area Foreman Training
VRF101	Variable Refrigerant Flow ductless split systems Daiken & Mitsubishi
TD-Screw	Screw compressor operation, tear-down and repair course
SS101	Steam Systems: Service & Troubleshooting Fundamentals is a new course geared towards service & troubleshooting and\or optimizing a customers facility. PRV's, traps, and condensate return systems will be explored.

Refrigeration

REF101	Commercial Refrigeration Cycles & Troubleshooting explores and compares real world and theoretical application and troubleshooting of the Pressure Enthalpy Cycle
REF102	Refrigeration Piping reviews the balance of oil return vs. pressure drop vs. efficiency as it relates to pipe sizing along with appropriate piping installation practices.
REF103	Commercial Refrigeration Part II explores components, refrigerant flow controls, and temperature control and defrost control of Commercial Refrigeration Systems
REF104	Supermarket Refrigeration provides an thorough overview of Rack Systems, unique operating conditions, Refrigerant & Oil Systems applied in Supermarket Refrigeration
REF105	Advanced Supermarket Refrigeration explores electronic valves, controls, secondary