



**STEAMFITTERS Local Union 420**

14420 Townsend Road  
Philadelphia, PA 19154-1028

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# STEAMFITTERS LOCAL UNION 420

JAMES SNELL  
*Business Manager*

THOMAS REDDEN III  
*Financial Secretary-Treasurer*

August 1, 2024

## JAT 2024-2025 Announcement Letter

Dear Member:

I am pleased to inform you that in September we will again be starting our Journeyman Advancement Training Program for the 2024-2025 season at the Steamfitters' Local Union 420 Training Center, 14420 Townsend Road, Philadelphia, PA 19154.

The initial class schedule and course descriptions for this season will be available online at the training tab of our web page mid-August. Classes will start the week of Monday September 9<sup>th</sup>.

All JAT students are required to register via email (email: [JATRegistration@lu420.com](mailto:JATRegistration@lu420.com) please include contact info, your cell#, your UA card number and the course(s) you would like to attend).

Email registration is highly encouraged this year and courses will be filled on a first come first served basis. As always, every effort will be made to accommodate all students and each student's choices.

Requests for EPA-608 CFC Certification Program & the UA STAR Certification and Re-Certification Programs will be accepted, and future preparations will be dependent upon student demand.

We also have our CPR/First Aid Certification/Recertification class.

All Journeyman members are encouraged to take advantage of these training courses to improve your job skills. **Remember, there is no substitute for a United Association skilled craftsman.**

Fraternally,

Jim Snell

Business Manager

# IMPORTANT INFORMATION INSIDE

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14420 Townsend Road - Suite A - Philadelphia, Pennsylvania 19154-1028 - Tel.: 267/350-4200 • Fax.: 267/350-4299 • 267/350-4225

Steamfitters MES(HVAC) Journeyman Advancement Training Schedule 2024/2025 email JATRegistration@lu420.com

	Monday		Tuesday		Wednesday		Thursday	
	Track 1	Track 2	Controls	Misc	Track 3	Misc	Track 4	Controls
<b>2024</b>								
Week 1: 9/9 - 9/12	MESJ-101	MESJ-201*	CT-101	CT-301	MESJ-301	VRF-101	MESJ-401	CT-201
Week 2: 9/16 - 9/19								
Week 3: 9/23 - 9/26								
Week 4: 9/30 - 10/3			LU420 MTG: No Class					
week 5: 10/7 - 10/10				CT-302				
week 6: 10/14 - 10/17		MESJ-202*						
week 7: 10/21 - 10/24		MESJ-203						
week 8: 10/28 - 10/31								
week 9: 11/4 - 11/7			Election Day: No Class					
week 10: 11/11 - 11/14				CT-303				
week 11: 11/18 - 11/21			CT-102					
week 12: 11/25 - 11/28		MESJ-204				A2L Cert		CT-203
week 13: 12/2 - 12/5								Thanksgiving
week 14: 12/9 - 12/12	MESJ-102				MESJ-303			
week 15: 12/16 - 12/19			(cont)					(cont)

Steamfitters MES(HVAC) Journeyman Advancement Training Schedule Spring 2025

	Monday		Tuesday		Wednesday		Thursday	
	Track 1	Track 2	Controls	Misc	Track 3	Misc	Track 4	Controls
<b>2025</b>								
week 16: 1/6 - 1/9	MESJ-103	MESJ-205	LU420 MTG: No Class		MESJ-303		MESJ-402	PF-101
week 17: 1/13 - 1/16								
week 18: 1/20 - 1/23								
week 19: 1/27 - 1/30		MESJ-206						CT204
week 20: 2/3 - 2/6								
week 21: 2/10 - 2/13								
week 22: 2/17 - 2/20		MESJ-207						
week 23: 2/24 - 2/27								TD-Screw
week 24: 3/3 - 3/7	MESJ-104							
week 25: 3/10 - 3/13		MESJ-208						
week 26: 3/17 - 3/20								
week 27: 3/24 - 3/27								
week 28: 3/31 - 4/3								
week 29: 4/7 - 4/10	MESJ-105	MESJ-209						
week 30: 4/14 - 4/17								
week 31: 4/21 - 4/24		MESJ-210a*						
week 32: 4/28 - 5/1		MESJ-210b*	CT-103					
week 33: 5/5 - 5/8		MESJ-210c*						
week 34: 5/12 - 5/15		MESJ-210d*						

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

2024-2025 Steamfitter Journeyman 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	
MESJ-101	Fundamentals for Journeyman Advanced Training
MESJ-102	Overview & Safety use of various refrigerants in Refrigeration related systems
MESJ-103	<b>Basic Controls &amp; Pneumatic</b> (see description below)
MESJ-104	Motors, Starters & Diagrams, Circuit Protection, etc.
MESJ-105	Science, Physics & Math fundamentals Overview for Start Test & Balance

Track #2 Required Classes	
MESJ-201	Teardown Fundamentals: Dimensions, Tolerances, Clearances & Fits along with the basic fundamentals of Rigging and Teardown Disassembly & Analysis
MESJ-202	* One Tear down class (OT, YK,CVHE or 19XL) is required for completion of Tracks 1 & 2 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-203	Fundamentals of Single & Double Effect Absorption Chillers
MESJ-204	Centrifugal Chiller Fundamentals
MESJ-205	Centrifugal Chiller monthly & annual maintenance
MESJ-206	Chiller Microprocessor & controls fundamentals
MESJ-207	Oilless VFD compressors: Overview & Intro
MESJ-208	VFD Course is a 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.
MESJ-209	<b>Chiller Ref Update:</b> new regs & update on Chiller Refrigerants
MESJ-210	combined classroom overview and shop demonstration of vibration analysis

Track #3 (Optional nites: SS-101, PF-101, etc.)	
MESJ-301	Chiller plant total system troubleshooting
MESJ-302	Steam Systems: Service & Troubleshooting Fundamentals
MESJ-303	York Optiview / VFD / Soft Starter training and troubleshooting
MESJ-304	MESJ-303 Course Advanced Airside Start, Test & Balance
MESJ-401	Track #4 (Optional nites: SS-101, PF-101, etc.) MESJ-401 Course includes intermediate training: Waterside Start, Test & Balance
MESJ-402	MESJ-402 Course Advanced Waterside Start, Test & Balance

Boilers-Burners-Combustion, etc.	
BB101	BB101 Course Boiler/burner basic maintenance, troubleshooting, combustion & safety
BB102	BB102 Course Boiler/Burner controls and safety devices
BB103	BB103 Course Advanced boiler/burner maintenance, repairs & combustion
BB104	BB104 Course Advanced boiler/burner control systems and calibrations

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 E(31),EII(31) & EIII(31)

Controls	
MESJ-103	<b>Basic Controls &amp; Pneumatic</b> course is the prerequisite for the Controls courses and MESJ courses. Electric, Electronic, Pneumatic and basic PID control is covered with appropriate electrical fundamentals.

CT101	<b>PRE-REQ: CP-101</b> Controls Intro includes history & hierarchy, generic hardware (I/As & O/Us) & software(algorithms). An overview of Unitary & Programmable control types, Application Specific Controllers, and network communication.
CT102	<b>PRE-REQ: CT-101 Application Specific Controllers(ASC)</b> 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	<b>PRE-REQ: CT-102 Programmable Controllers</b> programming blocks; on/off, PID, setpoints & schedules, min/max algorithms, etc. System communication & commissioning and the demonstration of the associated software is included.
CT-201	Fundamentals of Tridium Base Control Systems
CT-202	<b>Tridium Operations</b> is a short course exploring network controllers, creating and modifying schedules, and navigating and adjusting setpoints and parameters. Creating and viewing trends.
CT-203	<b>PRE-REQ: CT-103 Tridium Configuration</b> overviews of requirements for Tridium Certification & the config. portion: installing Comm ports, uploading controllers, creation of database, graphics and a sample of custom programming
CT-204	<b>PRE-REQ: CT-105-O</b> Intro/Overview to <b>Honeywell Spider</b> intro course: Spider Programmable Controllers: Real Time Internal Clock, Adap Integral Algorithm Integrated Actuator Option, Unitary & VAV Controller
CT-205	Honeywell <b>SpiderII</b> : level II training:the Spider family of Programmable Controllers
CT301	<b>Intro Overview to Tracer</b> is a short introductory course exploring Tracer controls.
CT302	Computer/Controls Networking & Terminology
CT303	Graphical Programming Course

Miscellaneous Courses	
PF101	<b>MESJ Pipefitting Fundamentals</b> is a short course on pipe fitting fundamentals and fundamental math required for offsets, etc.
TD-Screw	Screw compressor operation, teardown and repair course towards service & troubleshooting and/or optimizing a customers facility. PRV's, traps, and condensate return systems will be explored.
CPR/FIRST AID	CPR/First Aid certification/recertification course
VRF-101	Variable Refrigerant Flow ductless split systems Daiken & Mitsubishi
A2L Certification	UA A2L refrigerant training plus ESCO A2L refrigerant certification course

