Summary of Changes

The Technical Standards and Safety Authority (TSSA) is introducing new Oil Burner Technician – 3 (OBT3) curricula to align with the CSA B139 – Series 24, which will be adopted in the coming months.

Changes made to individual modules:

2023 Module Title	Comment
Module 16T - ADVANCED INSTALLATION CODES, ACTS AND REGULATIONS Estimated theory hours: 8	Added this theory module Reviews and expands upon information introduced in the OBT-3 course with an emphasis on OBT-2's role and responsibilities.
Module 16P - ADVANCED INSTALLATION CODES, ACTS AND REGULATIONS Estimated practical hours: 6	Added this practical module Requires students to access, interpret, and apply the laws governing oil installations
Module 17T - ADVANCED FUEL OIL SUPPLY SYSTEMS Estimated theory hours: 24	Added this theory module. Reviews and expands upon information introduced in the OBT-3 course with an emphasis on installation. Requirements in all four parts of the B139 Code as well as the B138 code are examined. A significant amount of information is added about tanks and piping systems at large installations, auxiliary tanks, and stationary engines
Module 17P - ADVANCED FUEL OIL SUPPLY SYSTEMS Estimated practical hours: 24	Added this practical module. Confirms student's knowledge and skill level regarding tanks and piping systems Focus is on installation including tank and piping installations to engines.
Module 18T - AIR SUPPLY AND BUILDING AS A SYSTEM Estimated theory hours: 16	Separated the air supply topic from Module 15T in the 2021 and 1997 versions and incorporated it with Module 14 in the 2021 and 1997 versions. By presenting air supply issues and requirements together with the building-as-a-system, the connection is made that the proper operation of the appliance

2023 Module Title	Comment
	depends on taking a wider perspective regarding air supply to the appliance(s). Air supply requirements at large installations and engine installations are added.
Module 18P - AIR SUPPLY AND BUILDING AS A SYSTEM Estimated practical hours: 4	Added this practical module. Requires students to apply theory information to a practical assessment of a building and air supply.
Module 19T - VENTING SYSTEMS Estimated theory hours: 24	Was part of Module 15T in previous curriculums Reviews and expands upon information introduced in the OBT-3 course with an emphasis on installation. Requirements in all four parts of the B139 Code are examined. A significant amount of information is added about newer venting systems and materials as well as at large installations and engine venting.
Module 19P - VENTING SYSTEMS Estimated practical hours: 24	There was no practical section in the 2021 version. Module 15 of the 1997 version did have a practical section but did not identify the estimated hours. Added practical exercises about installation of newer venting systems and materials as well as engine venting.
Module 20T - ELECTRICITY AND CONTROLS Estimated theory hours: 24	Were Modules 16T and 23T in previous versions but no estimated hours were given for Module 23T in the 2021 curriculum. Reviews basic electrical knowledge and skills since many OBT-3s do not have work experience with electricity. Covers all the topics in previous versions in a more organized way and adds information about installing, troubleshooting, and servicing newer controls.
Module 20P - ELECTRICITY AND CONTROLS Estimated practical hours: 24	Was Modules 16P and 23P in previous versions but no estimated hours were given for Module 23P in the 2021 curriculum.

2023 Module Title	Comment
	Increased emphasis on safety, installation, troubleshooting, and servicing of newer controls.
Module 21T - ADVANCED BURNERS AND COMBUSTION Estimated theory hours: 10	This new theory module reviews and extends the student's knowledge about burners and combustion Information about multi-stage and modulating input burners is added. A more in-depth understanding of combustion and how to correct combustion problems is emphasized.
Module 21P - ADVANCED BURNERS AND COMBUSTION Estimated practical hours: 12	This new practical module reviews and extends the student's skills related to burners and combustion. An exercise covering multi-stage and modulating input burners is added. Combustion troubleshooting skills are tested.
Module 22T - WATER HEATERS, COMBO SYSTEMS, POTABLE WATER HEATING SYSTEMS Estimated theory hours: 16	Was Module 18T in previous curriculums Covers all the topics in previous versions in a more organized way and adds information about installing, troubleshooting, and servicing newer water heaters and a wider variety of combo systems.
Module 22P - WATER HEATERS, COMBO SYSTEMS POTABLE WATER HEATING SYSTEMS Estimated practical hours: 16	Was Module 18P in previous curriculums Increased emphasis on safety, installation, troubleshooting, and servicing of newer water heaters and a wider variety of combo systems.
Module 23T - HYDRONIC HEATING SYSTEMS Estimated theory hours: 16	Was Module 20T in previous curriculums. Covers all the topics in previous versions in a more organized way and adds information about installing, troubleshooting, and servicing newer hydronic systems and equipment. Adds information about B214 Hydronics Code, B51 Boiler Code, and scope of OBT-2 certificate regarding hydronic systems.
Module 232P - HYDRONIC HEATING SYSTEMS Estimated practical hours: 24	Was Module 20P in 1997 curriculum but there was no practical in the 2021 version. Similar to the 1997 practical exercises but in a more organized way and adds information about installing, troubleshooting, and servicing newer hydronic systems.

2023 Module Title	Comment
Module 24T - FORCED WARM-AIR HEATING SYSTEMS Estimated theory hours: 24	Was Modules 19T and 22T in previous curriculums. By presenting air handling systems together with the forced air furnaces, the connection is made regarding the interdependence of the furnace and circulating air blower for proper operation. Covers all the topics in previous versions in a more organized and detailed way. Adds information about ductwork design and testing, selection of furnace, sequence of operation, and installation steps.
Module 24P - FORCED WARM-AIR HEATING SYSTEMS Estimated practical hours: 24	Were Modules 19P and 22P in the 1997 curriculum and Module 19P of the 2021 curriculum. The 2021 version did not have a practical section for Module 22. Added significantly more detail about info to cover on basic electrical concepts, circuits, and components. Added info on motors. Emphasis placed on allowed electrical work within the OBT-3 scope.
Module 25T - FORCED-AIR ADD-ON DEVICES Estimated theory hours: 12	Was Module 21T in previous curriculums. The 2021 version did not give estimated hours. Covers all the topics in previous versions in a more organized and detailed way. Adds information about humidity measurement and control, selection of add-on components, installation, and maintenance.
Module 25P - FORCED-AIR ADD-ON DEVICES Estimated practical hours: 10	Was Module 21P in the 1997 curriculum. The 2021 version did not have a practical section for Module 21. Essentially the same as the 1997 version but better organized with updated information.
Module 26T- INSTALLATION, TROUBLESHOOTING, AND SERVICING Estimated theory hours: 16	Although this module includes information from Module 17T in previous versions, it is essentially a new module that challenges the students to confirm and extend the information gained during the course Responsibilities of the OBT-2 are reviewed. Updated information on converting an appliance to fire on oil emphasizes approval requirements. The principles for selecting appliances and replacement parts are covered in detail.

2023 Module Title	Comment
	The steps for initially activating an appliance are covered in detail The principles of successful troubleshooting are covered in detail.
Module 26P- INSTALLATION, TROUBLESHOOTING, AND SERVICING Estimated practical hours: 32	Although this module includes exercises from Module 17P in previous versions, it is essentially a new module that challenges the students to confirm and extend the skills gained during the course Exercises in the previous Modules 17P that required the student to illegally convert an appliance to fire on oil have been removed and replaced by an exercise regarding a service call to an illegally converted appliance. Added two exercises on selecting an appliance. Added two exercises on installing and initially activating a vaporizing pot burner appliance and an atomizing burner appliance Added an exercise on troubleshooting. Added an exercise about assessing a stationary-engine installation as part of an initial activation. Added an exercise about assessing a portable generator for compliance with the B139 and B138 Codes.

Changes made to all modules:

- Formatting:
  - The "Reference Material" column was removed since it was often blank or contained obvious references in the 2021 version
  - Font, spacing, and bulletining are standardized in the 2023 version

- Terminology:
  - Changes made to meet recommended terms in MTCU's *Procedures for Development of Curriculum Standards* include:
    - "Enabling objectives" changed to "Learning objectives"
    - "Task" changed to "Performance objective" in practical modules
    - "Learner" changed to "student"

    - "Teacher" changed to "instructor"

- Module names and order were changed and one more module was added (10 in the 1997 and 2021 curriculums and 11 in the 2023 revision). All the 2023 modules have theory and practical sections unlike the previous curriculums.
    - See Appendix A for the module titles in the 2023 version
    - See Appendix B for the module titles in the 2021 version
    - See Appendix C for the module titles in the 1997 version
- Estimated hours for each theory and practical module are provided in the 2023 version, which was not the case in the 2021 or 1997 versions.
    - The estimated hours have been reduced from 452 hours (194 theory and 258 practical) in the 1997 version to 390 hours (190 theory and 200 practical) in the 2023 version. The 2021 version did not identify hours for most modules.
    - See Appendices A, B, and C for details on estimated hours
- Modern oil appliances and equipment are emphasized in the 2023 version and references to older equipment are either eliminated or minimized. A significant amount of information on stationary engines has been included in most of the modules.

APPENDIX A

2025 OIL BURNER TECHNICIAN 2 (OBT-2) CURRICULUM

TABLE OF CONTENTS

including Theory (T) and Practical (P) estimated hours

Module	Title	Theory Hours	Practical Hours
16	ADVANCED INSTALLATION CODES, ACTS AND REGULATIONS	8	6
17	ADVANCED FUEL OIL SUPPLY SYSTEMS	24	24
18	AIR SUPPLY AND BUILDING AS A SYSTEM	16	4
19	VENTING SYSTEMS	24	24
20	ELECTRICITY AND CONTROLS	24	24
21	ADVANCED BURNERS AND COMBUSTION	10	12
22	WATER HEATERS, COMBO SYSTEMS, POTABLE WATER HEATING SYSTEMS	16	16
23	HYDRONIC HEATING SYSTEMS	16	24
24	FORCED WARM-AIR HEATING SYSTEMS	24	24
25	FORCED-AIR ADD-ON DEVICES	12	10
26	INSTALLATION, TROUBLESHOOTING, AND SERVICING	16	32
	SUBTOTAL	190	200

APPENDIX B
2021 OIL BURNER TECHNICIAN 2 (OBT-2) CURRICULUM

TABLE OF CONTENTS

Including Theory (T) and Practical (P) estimated hours

Module	Title	Theory Hours	Practical Hours
14	BUILIDNG AS A SYSTEM	12	0
15	VENTING SYSTEMS	36	0
16	ELECTRICITY	60	60
17	CONVERSION BURNERS	24	24
18	WATER HEATERS, COMBO SYSTEMS, POTABLE WATER HEATING SYSTEMS	24	24
19	FORCED WARM-AIR HEATING	9	40
20	HYDRONIC HEATING SYSTEMS	N/I	0
21	FORCED-AIR ADD-ONS DEVICES	N/I	0
22	AIR HANDLING SYSTEMS	N/I	0
23	FLAME SAFEGUARD CONTROLS	N/I	0
	SUBTOTAL	165	148

"N/I" = Not Indicated

"0" = No practical module in curriculum

APPENDIX C
1997 OIL BURNER TECHNICIAN 2 (OBT-2) CURRICULUM

TABLE OF CONTENTS

Including Theory (T) and Practical (P) estimated hours

Module	Title	Theory Hours	Practical Hours
14	BUILIDNG AS A SYSTEM	12	0
15	VENTING SYSTEMS	30	42
16	ELECTRICITY	30	42
17	CONVERSION BURNERS	24	30
18	WATER HEATERS, COMBO SYSTEMS, POTABLE WATER HEATING SYSTEMS	16	16
19	FORCED WARM-AIR HEATING	12	48
20	HYDRONIC HEATING SYSTEMS	20	40
21	FORCED-AIR ADD-ONS DEVICES	6	12
22	AIR HANDLING SYSTEMS	20	16
23	FLAME SAFEGUARD CONTROLS	18	54
	SUBTOTAL	194	258

"0" = No practical module in curriculum