

Fire Management Services

2018-19 Program of Study	Level 1	Level 2	Level 3	Level 4
Fire Management Services	Principles of Fire and Emergency Services (6154)	Fire Prevention (6173)	Fire Science I (6152)	Fire Science II (6153)

Description

Fire Management Services students acquire the skills and knowledge needed to pursue the Firefighter 1 certification. Those students who complete this program of study (POS) will be prepared, after graduation, to further their instruction at a training facility. Upon completion of this POS course, proficient students will be able to correctly demonstrate skills associated with ventilation, water supply, fire hose and fire streams in a non-live situation, and will demonstrate safety with hazardous materials. Standards in this course are aligned with the National Fire and Emergency Services Higher Education (FESHE) model.¹

Job Outlook

With 5,310 firefighters projected to be employed in Tennessee by 2024, and a total employment change of 550, jobs4tn.gov lists firefighting as having a bright future. Jobs were distributed across the state in 2014, as seen in **Figure 1**, with the highest concentrations in the metropolitan areas. With current supply and demand being such that the total supply of fire science workers is 35 and demand is 274, the employment outlook is very good.²

Other employment options for firefighters include fire inspector or fire investigator as shown in **Figure 2**. According to BLS.gov, the annual wage average for these positions is \$54,020, and the outlook is for growth of five percent or as fast as average. Firefighters who wish to become inspectors or investigators, **Figure 3**, attend certification training at their local fire academy, train on the job, then take a national certification exam that is administered by their local fire department or the National Fire Protection Association.³

¹ Crouch, Ray, "Firefighter Minimum Training Law: Public Chapter 512 - 2009" (2009). *MTAS Publications: Hot Topics*. http://trace.tennessee.edu/utk_mtastop/43

² Tennessee Higher Education Commission. (2015). *Academic Supply and Occupational Demand in Tennessee*. Retrieved from https://www.tn.gov/assets/entities/thec/attachments/LM2015_SupplyDemand_Combined_0120.pdf

³ Bureau of Labor Statistics, United States Department of Labor. (2015). *Occupational Outlook Handbook: How to Become a Fire Inspector*. Retrieved from <http://www.bls.gov/OOH/protective-service/fire-inspectors-and-investigators.htm#tab-4>

Figure 1. 2024 projected employment for Firefighters ⁴

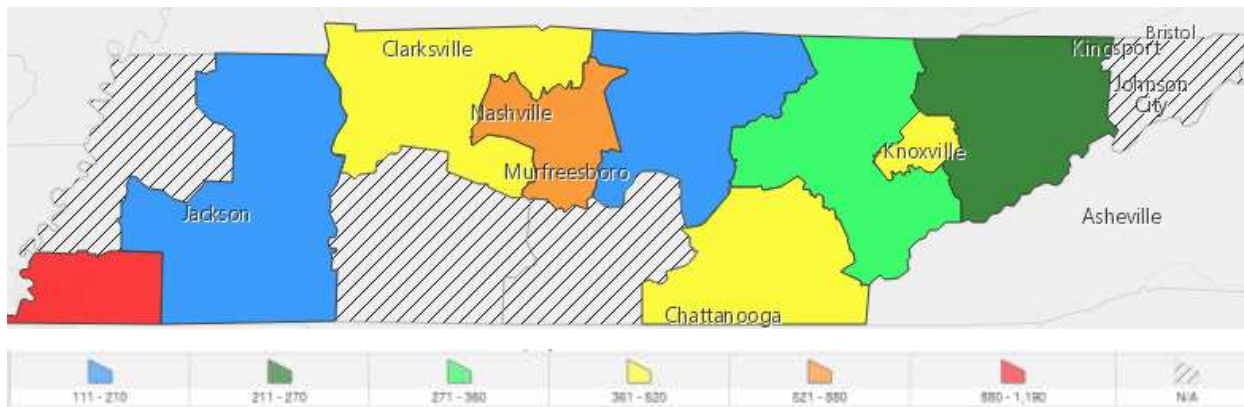


Figure 2. Tennessee employment projections for fire management services and related occupations⁵

Occupation	2014 Estimated Employment	2024 Projected Employment	Total 2014 - 2024 Employment Change	Annual Avg. Percent Change	Median Salary
Municipal Firefighter	4,760	5,310	550	11.5%	\$38,940
Forest Fire Inspector	240	270	30	10%	\$53,530

⁴ Tennessee Department of Labor & Workforce Development. (2016). *Occupational Projections*. Retrieved from <https://www.jobs4tn.gov/vosnet/analyzer/results.aspx?session=occproj>

⁵ Tennessee Department of Labor & Workforce Development. (2016). *Occupational Projections*. Retrieved from <https://www.jobs4tn.gov/vosnet/analyzer/results.aspx?session=occproj>

Figure 3. State and national trends for forest fire inspector with positive projections 2014-24⁶

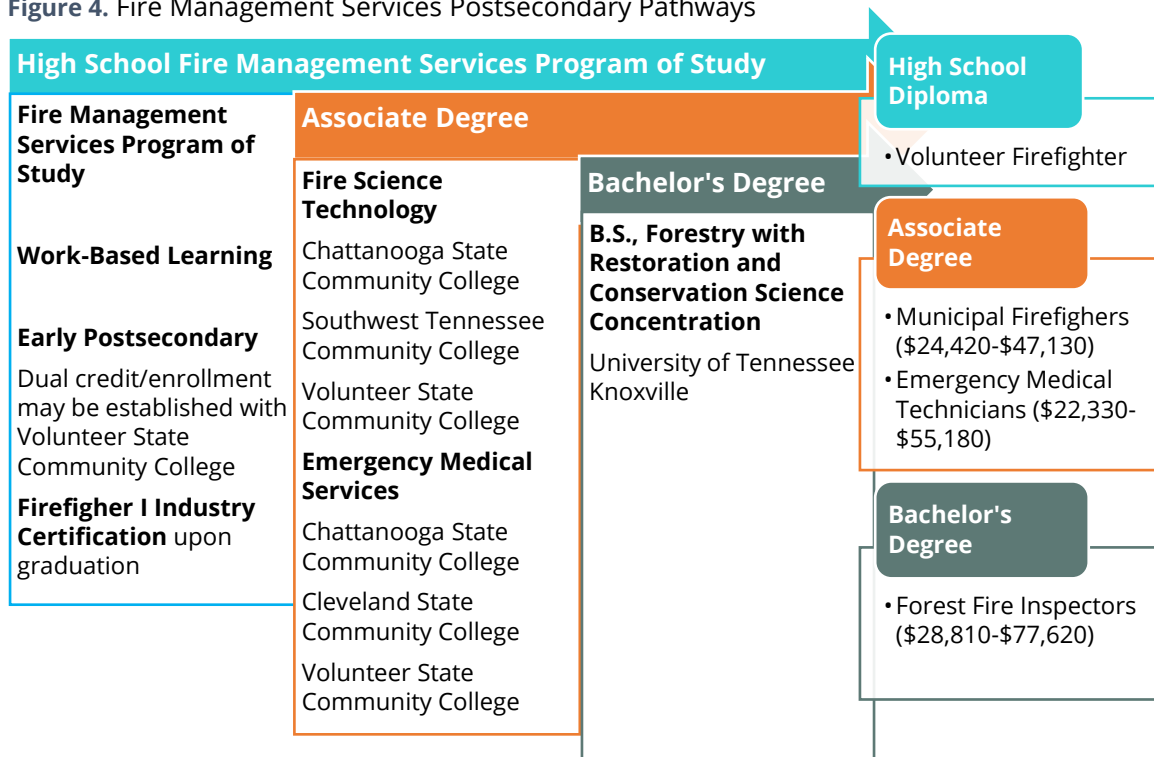
	Employment		Percent Change	Projected Annual Job Openings
	2014	2024		
National				
Forest Fire Inspector	12,400	13,100	6%	430
Tennessee18	Employment		Percent Change	Projected Annual Job Openings
	2014	2024		
Forest Fire Inspector	240	270	10%	10

⁶ United States Department of Labor, Employment and Training Administration. (2016). *Career One Stop*. Retrieved from <https://www.onetonline.org/link/summary/33-2011.00>

Postsecondary Opportunities

There are currently three Fire Science Technology programs in Tennessee as shown in **Figure 4**. All firefighters in the state of TN who do not attend one of these programs must attend the Tennessee Fire Service and Code Enforcement Academy (TFCEA) or their local fire-training academy for training. The level of training at entry determines the hours of training upon employment. The students in the POS will meet the requirement of 360 hours but must go to the TFCEA campus for the live burn portion of instruction. Students who wish to pursue employment as forest fire inspectors may complete a bachelor’s degree in Forestry with a Concentration in Restoration and Conservation Science.

Figure 4. Fire Management Services Postsecondary Pathways



Current Secondary Landscape

Open enrollment analysis for SY 2017-18 shows a statewide increase in programs to ten, **Figure 5**, which is a gradual increase. This POS can be challenging but not impossible to implement in our schools. The establishment of strong partnerships must take place to ensure all equipment is available for hands-on application in Fire Science I and Fire Science II. There are state and federal guidelines that are required for equipment and instructors, but partnerships are possible between fire department instructors and high schools.

Figure 5. Open enrollment analysis ⁷

SY	Fire Management Services
2014-15	6
2015-16	4
2016-17	9
2017-18	10

Student Enrollment

SY	Principles of Fire and Emergency Services	Fire Prevention	Fire Science I	Fire Science II	Dual Enrollment Fire Management Services
2013-14	0	0	0	0	0
2014-15	0	0	0	0	0
2015-16	0	0	15	1	15

Fire Management Services Concentrators

SY	Fire Management Services Concentrators
2013-14	n.d.
2014-15	n.d.
2015-16	8

⁷ Tennessee Department of Education. (2015). *Student Enrollment Data*. Retrieved from Author's calculation of student enrollment data.

Recommendations

As the demand for firefighters is high, and the number of schools with the Fire Management Services program of study is low, more schools should consider adding this POS. Marketing materials, training at the CTE Institute, outreach to CTE directors, and newsletter articles from the consultant should raise awareness. No other changes are recommended at this time.

2019-20 Program of Study	Level 1	Level 2	Level 3	Level 4
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References

- Crouch, Ray, "Firefighter Minimum Training Law: Public Chapter 512 - 2009" (2009).MTAS Publications: Hot Topics. Retrieved from http://trace.tennessee.edu/utk_mtastop/43
- Tennessee Department of Education. (2015). Student Enrollment Data. Retrieved from Author's calculation of student enrollment data.
- Tennessee Department of Labor & Workforce Development. (2016). *Occupational Projections*. Retrieved from <https://www.jobs4tn.gov/vosnet/analyzer/results.aspx?session=occproj>
- Tennessee Higher Education Commission. (2015). *Academic Supply and Occupational Demand in Tennessee*. Retrieved from https://www.tn.gov/assets/entities/thec/attachments/LM2015_SupplyDemand_Combined_0120.pdf
- United States Department of Labor, Bureau of Labor Statistics. (2017, April 26). Occupational Outlook Handbook, 2016-17 Edition. Retrieved from <http://www.bls.gov/OOH/protective-service/fire-inspectors-and-investigators.htm#tab-4>
- United States Department of Labor, Employment and Training Administration. (2016). *Career One Stop*. Retrieved from <https://www.onetonline.org/link/summary/33-2011.00>