

State Fire Academy

A Division of Mississippi Insurance Department



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Strategic Plan Fiscal Years 2019-2023

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1. Mission Statement for State Fire Academy

To serve the Mississippi Fire Service Community and the World by providing quality education and training in fundamental and advanced skills to save lives and property.

“Making A Difference When It Matters The Most!”

Enabling Legislation

- *MS Code Annotated 1972, Section 45-11-7 (1) creates the State Fire Academy for the purpose of training and education of persons engaged in municipal, county, and industrial fire protection and designates it as a division of the Insurance Department.*
- *Section 45-11-7 (4) officially designates the Academy as the agency of the state to conduct training for fire personnel on a statewide basis in which members of all duly constituted fire departments may participate.*
- *Section 45-11-203 references that the uniform training standards for all paid fire fighters shall consist of the satisfactory completion of a training program administered by the State Fire Academy.*
- *Section 83-1-39 requires one member of the sheriff's department to be the county fire investigator and to attend training at the State Fire Academy in arson investigation.*

2. Philosophy

The State Fire Academy is committed and responsible for the training and education of personnel engaged in municipal, county and industrial fire protection. This student body consists of career, volunteer and industrial fire personnel. The Academy has three training areas, which are 1) Certification Services 2) Extension Services and 3) Industrial and Special Services, which all focus on the Academy's only function, which is **Training**. All other areas support the staff and students of these training areas. Appendix A introduces you to the Fire Academy facility, as well as page one with the aerial view of campus.

The Academy's philosophy is to deliver quality training and instruction to the fire service/emergency response personnel of the State, while adhering to high ethical standards, promoting cooperation among staff with efficiency and integrity in their work while representing the Academy in a professional, courteous, and helpful manner at all times, and safeguarding the assets of the State. The Academy is committed to providing excellent service to its customers by providing training based on National Fire Protection Association (NFPA) standards as well as specialized courses not addressed by NFPA.

3. Relevant Statewide Goal and Benchmark

Public Safety and Order

Statewide Goal: To protect the public's safety by providing training to first responders/emergency responders.

The training students receive from the Academy provides them the skills necessary to save lives and property, which will in turn, lower the insurance fire rating which determines the premium rates on business and homeowner's insurance.

Benchmarks:

- Number of students trained
- Number of courses offered

4. Overview of State Fire Academy 5 Year Strategic Plan

During the course of the next five years (2019-2023), the Academy plans to continue to offer quality and advanced training, develop new courses to offer to emergency responders, seek additional funding sources, and continue to apply and receive grant funding. Plans are identified below:

- Continue to implement the new student registration/transcript program with a web based solution that will allow on-line training, on-line testing, and the ability for students to access their own training records.
- Purchase of a new 100 foot aerial apparatus truck to replace a twenty-seven (27) year-old outdated apparatus used in training.
- Develop new courses in conjunction with universities that would allow college credit toward a degree program. Currently, we have courses that have been approved by some community colleges for college credit toward a fire science degree and with two on-line universities.
- Expand Student Dorm Accommodations and Emergency Response Staging opportunities by building additional dorm space. The first part of this phase entails building a simulated Fire Station/Emergency Response Staging Area that can accommodate sixty-two recruit fire fighters for the basic training class. The recruits would stay in the fire station just as they would while on duty at their own departments. The training would consist of classroom and skills evaluations, as well as real world night time scenarios to which the recruits would respond. This addition is necessary to accommodate the student load at the Academy, which would bring the housing capacity for students to 135. The Academy currently has a dormitory that can only accommodate a maximum of 75 students. Due to the limited dorm space, many students could not be accommodated and would have to stay in hotels when here for training. We can offer the courses, but most departments (municipal, county, or volunteer) do not have the money available to place students in hotel rooms during the training. With the addition of the proposed simulated Fire Station with sixty-two (62) beds, our capacity would increase by 62 for dorm accommodations.

Also, with the Academy campus being located next to MEMA, the proposed simulated Fire Station/Emergency Response Staging Area could be utilized as a staging area for emergency response personnel in the event of a declared State disaster. When this occurs, MEMA requires credentialing of those involved as well as accommodations for groups heading to assist or returning to their own area of the State.

- Due to the age of the facility (40+ years old), the original cafeteria and kitchen need to be updated and expanded to accommodate the increased number of students currently present on campus. Meals are prepared for students twice daily. Current capacity in the dining hall is eighty students.
- New Training Prop-Flammable Liquids/Propane Pad #6. This training prop will resemble an industrial refining terminal with approximately 20,000 square feet of burning area. Platforms will be elevated to simulate petroleum refining towers and stacks. Currently, we are working with one of our industrial customers that may be able to provide all the supplies needed for this to be constructed.
- Multipurpose Building. This will be a 10,000 square foot metal building with a brick façade that will be subdivided into 6 areas. These include a physical recreation/exercise area that will be utilized during CPAT testing, a locker room, a weight/conditioning room accessible to staff and students, new meeting spaces and auxiliary rooms for class use and storage of CPAT equipment.
- Expand Academy course offerings by developing new courses that will be presented and accredited by the International Fire Service Accreditation Congress (IFSAC) and ProBoard. As outlined in Appendix A, the agency has 13 courses currently accredited by IFSAC at 24 levels and 17 courses accredited by ProBoard at 32 levels. Both of these organizations are internationally recognized. Staff will continue to have other courses reviewed for accreditation.

5. Agency External/Internal Assessment

External factors include:

- Appropriation funding authority/level of funding
- Local fire departments' level of budget/funding for training
- Legislative statute changes regarding fire personnel training or agency responsibility
- Regulations imposed by the Mississippi Fire Personnel Minimum Standards and Certification Board
- Changes in OSHA regulations
- Facility and/or staffing limitations
- Federal grant funding availability
- National incidents of terrorism or natural disasters
- Changes in NFPA Standards
- Training offered by other training facilities, including out of state facilities
- Equipment changes (fire apparatus)
- Spikes in the costs of commodities, which can affect the quantity or quality of live fire training that can be provided.
- Technology changes
- Changes to the overall economy

Internal factors include:

- Being changed from a special fund to general fund appropriations during the 2016 Regular Session
- Redirection of Agency mission and objectives
- Operational Procedures

- Organizational Structure

Agency's internal management system

The State Fire Academy will monitor and evaluate the direction of the agency to ensure the mission and performance objectives are accurate statements reflecting the ever changing needs of the fire service and that the targeted outcomes can be tracked and produced. Each manager of the Academy will have input regarding the direction of training the public is requesting and the path they (as managers) suggest to accomplish the task. The Academy currently utilizes all management tools available to state agencies, including the Performance Development System (PDS) and management training through the State Personnel Board such as the Certified Public Managers certification and the Basic Supervisory Course. The Academy utilizes weekly management briefings to keep all levels of Academy staff updated on goals and opportunities that must be met. The Academy has several policies in place to control and protect sensitive information, such as the implementation of stringent testing procedures and tight controls of those testing materials. The Academy has a bureau dedicated to public relations, which handles contact with the Academy's customers and the general public.

The Academy utilizes internal tracking to keep abreast of course participation numbers, which courses have been successful and popular, where needs may be for the addition of more sessions of wait-listed courses or decreases due to a lower enrollment. Internal control checklists are included in each course folder which allows each bureau and the admissions office to track the outcome of each course delivery. This information is then entered into a master spreadsheet by fiscal year, which allows the Academy to make accurate reports of performance. The Academy solicits course evaluations by providing each student a course evaluation form which, if returned by the student, stays in the permanent course folder. This assists the Academy's evaluation of the programs presented.

6. Agency Goals, Objectives, Strategies, and Measures by Program for FY 2019 to FY 2023

PROGRAM 1: Training

GOAL A: To provide quality training and education in fundamental and advanced skills to save lives and property to first responders/emergency responders.

Statutory Duties:

MS Code Annotated Section 45-11-7:

The State Fire Academy was created for the purpose of training and education of persons engaged in municipal, county and industrial fire protection.

The Academy is officially designated as the agency of this state to conduct training for fire personnel on a statewide basis to all duly constituted fire departments.

MS Code Annotated Section 45-11-203:

Within one year of employment, all paid full time fire fighters shall be certified as completing the mandatory training requirements administered by the State Fire Academy.

MS Code Annotated Section 83-1-39:

Requires one member of the sheriff's department to be the county fire investigator and to attend training at the State Fire Academy in arson investigation.

OBJECTIVE A.1: To offer training on a state-wide basis at the lowest possible cost with maximum attendance in each delivery as well as a reasonable pass ratio. The following outcomes are sought:

Outcome: Meet the expected output ratio of courses offered annually at 96%

Outcome: Meet the expected output ratio of students trained annually at 96%

Outcome: Meet the expected output ratio of student contract hours at 96%

Outcome: Maintain a student pass ratio of all course requirements at 90%

A.1.1 STRATEGY:

The Academy sets the course delivery dates for on-campus courses with the dormitory capacity in mind, with the exception of industrial training. There are five weeks per year that training is typically not offered on-campus (holidays). Training offered off campus is upon request by the counties/departments of the state with a minimum of two courses per county annually at no cost. Counties/departments may request additional course instruction material and to have their training officers teach their own counties/departments, with us providing the material at no cost. Grant-funded specialized courses are offered on a request basis. Industrial courses are specialized and may be taught at the industrial customers' location. We offer group student study sessions on campus and provide adequate student materials and hands on demonstrations. We provide reference material as well as a computer lab (on campus) for students use.

- Output:
 - Number of Courses Offered Annually (on or off campus)
 - Number of students/emergency responders trained annually
 - Number of student attempted contract hours annually

- Efficiency:
 - Average cost per student trained (operational cost / target number of students trained):
While some off campus courses are no cost to the sponsoring county/department, the total students trained both on and off campus are used in this calculation.
 - Average cost per student hour (operational cost / target number of attempted hours):
While some off campus courses are no cost to the sponsoring county/department, the total cost per instructional hour is used in this calculation.

➤ Explanatory Measures:

Regarding the courses offered annually, the following are factors to consider:

- We can offer the courses, but cannot mandate that the departments request deliveries or send students to training on campus
- Reduction of federal grant funding
- Local fire departments' level of budget/funding for training
- Changes to the overall economy
- Changing our funding mechanism from special funds to general funds

Regarding number of students trained, the following are factors to consider:

- Reduction of federal grant funding
- Local fire departments' level of budget/funding for training
- Appropriation funding authority/level of funding
- Legislative changes regarding fire personnel training or agency responsibility
- Regulations imposed by the Mississippi Fire Personnel Minimum Standards and Certification Board
- Changes to OSHA regulations
- Facility limitations
- Staffing limitations
- Federal grant funding availability
- National incidents of terrorism or natural disasters
- Technology changes
- Changes to the overall economy

Regarding the pass ratio of students attending courses and meeting all course requirements, the following are factors to consider.

- Offering accredited courses, we must meet the accreditation criteria for courses offered which include students passing written exams at 70% plus skills examinations. The issue we are seeing is that students with minimal education and/or comprehensive skills are unable to pass the written exams, thereby failing the course.
- Another issue is that the courses offered off campus are mostly to volunteer emergency responders (which represent 72% of the Mississippi Fire Service) and must be conducted primarily at night due to the volunteers having jobs. The courses are taught from 6-10 PM and if the students do not attend all nights of the course, they do not complete the course successfully. They are given credit for hours completed.

APPENDIX A: Overview of the State Fire Academy Facility

Facility Description:

The State Fire Academy is located just outside the capital city of Jackson in Rankin County, Mississippi. Construction began in 1974, and is located on approximately one hundred and twelve (112) acres. Currently, the agency has the following structures:

A Trench Rescue and Emergency Shoring Prop was completed during fiscal year 2009. The prop consists of approximately seventy feet of space for practice in emergency shoring techniques and to allow several scenarios for rescue operations. The prop was a generous donation of equipment, labor, and material from the Associated General Contractors of Mississippi-Municipal Contractors Division. The value of the prop is estimated at a quarter of a million dollars.



The Fire Research Building simulates a three-story residential structure with an attic, and a commercial structure with a basement. The building contains over 4,000 square feet of training space and is equipped with five computer controlled fire/smoke rooms with propane gas fueled fire simulators and a Class A burn room. A four (4) story drill tower is attached to the burn area. The project was completed in November 2006 with authorization by the State Legislature during the 2003 Regular Session of the Mississippi Legislature. During fiscal year 2012,

installation of a new fire prop in the Fire Research Building was completed. The prop simulates a couch fire with flashover capabilities, and is computer controlled along with the other four props in the building.



The original Burn Building was constructed in 1974. It has four levels and simulates residential and commercial buildings. Since the completion of the new Fire Research Building in 2006, this building has been converted into a self contained breathing apparatus (SCBA) training area and collapse rescue training building. The SCBA training area utilizes mazes and artificial smoke for training. The collapse rescue area of the building simulates collapsed ceilings, walls, and floors.



The five-story drill tower provides opportunities for high-rise ladder, rope and firefighting operations. In addition to this tower, there is a communications tower erected for training high angle rescue purposes.

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The live burn area consists of five large concrete pads as well as one 5,000 square foot airliner fuselage flammable liquid/LP gas burn prop designed specifically to prevent environmental contamination. These training areas include: a fifty foot flowing fuel fire (LP gas Christmas tree fire); LP gas tank fire; pump seal fire; twenty foot vertical tank fire with exposures; horizontal tank fire with an exposed small tank truck; and a three story evolution simulating a chemical processing plant fire.



The hazardous materials training site consists of a large train derailment simulation with eleven cars.



Two lakes are on campus. One is forty feet deep and is utilized for dive rescue training. The other lake is used as a water source for pump testing fire apparatus.



The confined space training site has over 9,000 cubic feet of enclosed area and a forty-five foot tower. The underground area includes vents and drains with several emergency entries/exits.

A forty-one by fourteen foot water vessel is dry docked for the instruction of offshore personnel.



An arson lab is used to build real life room-like structures with furniture to train in arson detection.



Five aircraft simulators are used in the instruction of aircraft rescue training. A landing gear simulator is at this site along with a side-wall aircraft section used in training. We are recognized by the Federal Aviation Administration as an approved training site for this region. Students from all over the United States attend these courses for the required annual training to be in compliance with the FAA regulations.



The Fire Education and Safety Auditorium will seat up to 300 people and is used for graduations and large meetings of the fire service. The building underwent renovation by the Bureau of Buildings and was completed in November of 2012.



The construction and furnishing of four state of the art classrooms was completed in May of 2012. This project has greatly enhanced our facility. Two of the classrooms are theater style that will seat 50 each, while the other two classrooms are traditional with seating capacity of 30 each. Each of the classrooms has the latest technology for course instruction and wireless capabilities.



The National Natural Gas Association, along with Mississippi 811, the Mississippi Public Service Commission and several energy companies, have begun the construction process for erecting the "Mississippi Safety City" on the Academy campus. The Mississippi Safety City is a one-of-a-kind, small scale city encompassing two acres that will serve as a training facility for natural gas operators, emergency response personnel, and industrial technicians. The city will contain homes, streets, streetlights and natural gas pipelines. Training will include classroom settings as well as real life simulations of natural gas eruptions and responses, and inspection techniques of gas systems. The estimated cost of this project is one million dollars, which will be donated by the sponsors.

- ◆ The Learning Resource Center is a part of the Administration Building. This area has twenty-five computers for student use and will also become a library for resource books and magazines.
- ◆ Other buildings on campus include the Administration Building which houses offices, three classrooms, and a full service cafeteria. The cafeteria is utilized to serve students two meals a day. The dormitory currently will sleep seventy-five. An exercise area is located in the dorm for use by students, as well as a recreational area.



Projects Currently Underway:



Progress has been made on the construction of a new training prop, Structural Collapse Rescue. The prop was designed by staff members and most work is being performed by staff. This prop will consist of material to simulate a collapsed building consisting of concrete, masonry, brick, wood and metal. The training will consist of rescue personnel digging, bracing, shoring, and removing victims of the collapse. Heavy machinery such as bulldozers, backhoes, and cranes will be utilized to remove the debris for the safe rescue training. Anticipated completion of the project is December of 2017.



For Fiscal Year 2017, we received federal grant funding for the purchase of two fire/emergency driving simulators which will be utilized for student instruction and evaluation. Additionally, we will seek funding for the purchase of a new aerial truck to be utilized in training. In Fiscal Year 2018, the Academy was awarded a federally funded

grant to purchase a new pumper truck apparatus. The Academy will complete this purchase during FY 2018, to replace a 1979 pumper.

Fire Academy Staffing:

The Academy operates the facility with sixty-three (63) staff members in the following major areas:

- Administrative
- Human Resources
- Minimum Standards and Certification Board Secretary
- Information Technology and Videography
- Building, Maintenance, and Vehicle
- Housekeeping
- Cafeteria
- Curriculum/Accreditation and Public Relations
- Instructional –Certification, Industrial/Special, Extension Services

The Office of Administrative Services is responsible for the day to day operations of the Academy, student training records and course registration. Human Resources is responsible for staff recruitment, staff training and all employee benefits. The Secretary for the Minimum Standards Board is responsible for all functions related to Board activities. The Informational Technology and Videography Bureau is responsible for all computer systems for staff, the Learning Resource Center for students' use, custom programming for staff, and videos of class training. The Building, Maintenance, and Vehicle Bureau is responsible for maintaining and repairing all of the agency buildings, equipment, and training props as well as all vehicles owned by the Academy, including Fire Apparatus. Housekeeping is responsible for maintaining the cleanliness of all the buildings, checking students into the dormitory, issuing linens, cleaning rooms, and assisting in grounds keeping when necessary. The Cafeteria Staff is responsible for serving two meals a day to students.

The Academy organized an Honor Guard consisting of ten staff members. This has been a great benefit to the State. We attend and/or perform services when requested for funerals of members of the fire service or opening ceremonies for meetings.

The agency Executive Director and twenty-nine (29) Instructional staff members comprise the members of the State Emergency Response Team for immediate response to any disasters within the State of Mississippi. They were one of the first response teams at ground zero after Hurricane Katrina hit.

The **Curriculum/Accreditation and Public Relations Bureau** is responsible for reviewing, updating, and revising all lesson plans and then testing for courses taught by the Academy. The revisions are based on changes to the National Fire Protection Association (NFPA) codes and standards as well as any changes to OSHA regulations. We have twenty-five (25) courses with twenty-nine (29) levels accredited by the National Board on Fire Service Professional Qualifications (PROBOARD). We have twenty-one (21) NFPA courses with twenty-three (23) levels accredited by the International Fire Service Accreditation Congress (IFSAC). A total of twenty-one (21) courses are dually accredited which speaks highly for the State of Mississippi and for the students receiving the training.

The Public Relations area prepares/designs all public documents including the course catalog and news releases. In addition, informative tours are given to all ages, from kindergarten to senior citizen groups. The tours consist of information the Academy provides relating to fire safety, discussing fire fighters' duties, and touring the campus, including all fire apparatus and training props.

The **Certification Training Bureau** has the responsibility of providing National Fire Protection Association (NFPA) certified courses to the career and volunteer fire fighters of the state. Most of these programs are accredited from the International Fire Service Accreditation Congress (IFSAC) and the National Board on Fire Service Professional Qualification (PROBOARD). Certification programs provide the foundation on which fire service personnel may build upon entering one of the various fire service occupational fields.

Section 45-11-203 of the Mississippi Code mandates that any full-time fire fighter employed by any local government fire fighting unit must complete the mandated training requirements within one year from date of employment. The mandated training requirements established by the state consist of the satisfactory completion of the Minimum Standards 1001 class administered by the State Fire Academy either on campus or through the Fire Academy's field delivery program, which is described below. The MCSB has designated the Academy as having the authority to test all basic fire fighter classes in addition to the testing/administration of the Candidate Physical Agility Test (CPAT) required to be completed prior to entry in the Minimum Standards 1001 class.

In an effort to provide qualified instructors for certain upper level certification courses, we conduct train-the-trainer programs and have developed a field delivery process in which the departments utilize Academy-provided course material and the Academy staff administers the testing, skills, and certification process. This has allowed us to expand greatly the number of students that can be reached in a given year. Many of the courses offered by this bureau are also available in a distance learning format that the student must complete within a six month time frame. The student must then report on campus to do the final testing.

The **Industrial/Special Services Bureau** of the Academy has the responsibility of 1) providing the industrial community Industrial Fire Protection training/education programs which enhance private concerns related to emergency response actions and personnel safety, and 2) providing the public fire service community a higher level of training/education in highly technical areas. Industrial programs are designed to offer industry an avenue for training within the State which meets or exceeds requirements placed upon them by the U. S. Department of Labor through the Occupational Safety and Health Administration (OSHA), and/or the Environmental Protection Agency (EPA). Courses are offered in fireground leadership, fire protection, fire suppression, rescue, and hazardous materials. This bureau offers specialized training courses for municipal departments based on their needs and interest in various special areas of training. The rescue and hazardous materials courses are accredited by the National Board on Fire Service Professional Qualifications (PROBOARD).

Industrial customers are currently scheduling classes 16-18 months in advance in order to receive the training at this Academy. The demand for training from the industrial community is increasing annually. We currently cannot schedule all the training requested due to facility limitations. The Academy has not openly solicited for business from the industrial community because we cannot

meet the present demand. However, our reputation for high quality training programs has spread by word of mouth and entities are contacting us to schedule training.

Federal grant funds are utilized to present thirteen (13) courses that have been approved by the Department of Homeland Security-Office of Domestic Preparedness (ODP) for training state-wide. Deliveries of these courses save the department money (no course fee) in addition to reducing the cost of paying their personnel travel and over-time pay. These courses are offered to personnel in several disciplines such as fire fighters, law enforcement, emergency medical personnel, as well as personnel employed by public works, government, public health, agriculture, and health care. Courses can be presented in module format which allows students to attend all sessions and have the equivalent of the course being taught in one or two weeks on campus.

The Industrial Bureau has successfully hosted on four occasions the Industrial Rescue Training Symposium (IRTS) in conjunction with Murphy Oil USA for teams from all across the United States to participate in two days of intense competition in both rescue and medical problems. Additionally, the Chlorine Institute Inc. has held training for its member companies' emergency response teams from across the United States and Canada at the Academy for over the last ten years, with a commitment to return in April 2018. The Chlorine Institute is an Arlington, Virginia-based technical trade association focusing on improving safety and environmental performance in the production, handling, and transportation of chlorine and related chemicals. Plans are underway for them to donate additional railcars, tankers, and a track to be added to our current train derailment site that they will be able to utilize when they arrive for training each year.

The **Extension Services Bureau** of the Academy serves as the "extended" arm of the Academy by offering distance delivery programs and courses to enhance the professionalism of fire service personnel, through regional and local community deliveries.

The Extension Services Bureau offers a minimum of two (2) fire schools per county per calendar year at no cost to the local departments; conducts two (2) open field days per year and three (3) certification/evaluation field days per year; develops and provides materials to the County and Municipal Training Officers for deliveries; coordinates the delivery of National Fire Academy field deliveries; and conducts training in the National Incident Management System (NIMS) for first responders statewide to be in compliance with the Presidential Directive.

Also, this Bureau has the responsibility of training airport fire personnel in aircraft rescue and firefighting techniques including annual refresher live fire training as required by the Federal Aviation Administration; high rise firefighting, school bus extrication, Driver Operator-Pumper and Aerial Apparatus courses, and public fire safety education courses. Airport Fire Fighter and Driver Operator courses are accredited by both IFSAC and PROBOARD.

In addition to the National Fire Academy (NFA) courses taught on campus and around the state, the Academy co-sponsors a weekend at the National Academy for Mississippi students. We sponsor two to three courses and another state sponsors two to three. Staff members accompany Mississippi fire fighters to the National Fire Academy. Funding for the NFA courses taught in state is provided through a federal grant.

We make every effort to get each county to hold the two allowed courses per calendar year, as well as encourage additional courses as requested. Regional deliveries to cover special circumstances are conducted when requested.

The **Vehicle/Maintenance Bureau assists** local fire departments with training personnel in vehicle, pump, nozzle, and SCBA maintenance, and provides technical assistance in the design of fire apparatus and specification review. Most of the departments state-wide have taken advantage of the Rural Fire Truck Acquisition funding to purchase a fire apparatus and the Academy needs to be able to train personnel on maintenance and operation of the features on the newer pumper trucks. This need makes the Academy's new apparatus an invaluable training tool for students who will be responsible for maintaining state of the art equipment.