MISSION STATEMENT

Collaborate and partner with emergency response agencies, organizations, associations and educational institutions to provide high quality pre-employment training and education, and professional development opportunities for career and volunteer emergency response personnel to meet industry needs for a skilled and diverse professional workforce.
Abstract

During summer and fall terms of the 2009-2010 and 2010-2011 academic years, respectively, a review of the Fire Protection Technology (FP) program was conducted. The program review was based on the criteria set forth in the Portland Community College (PCC) Academic Program/Discipline Review Guidelines, September 2010 [www.pcc.edu/resources/academic/program-review/documents/ProgramDisciplineReviewGuidelinesSept2010.pdf].

Based on this work, an assessment of the current state of the FPT program was determined. As with any work of this nature, one will find both strengths and weaknesses. Overall, the program appears to be healthy. It has strong enrollment, competent faculty and staff, and strong support from the community it serves. However, there are things which should be addressed prior to the next Program Review, including “cleaning up” the Course Content and Outcomes Guides (CCOGs) as currently listed on the PCC web site – www.pcc.edu, addressing the issue of awarding credit for work experience and non-traditional learning, and planning for the future (succession planning).

It was determined that the FPT program has many exciting things to look forward to in the next 5-years, including accreditation of a certification program for certifying fire fighters, hazardous materials responders, fire apparatus operators, and fire instructors throughout the State of Oregon, degree program accreditation, and pre-employment physical agility testing for area fire departments.

In addition, through the Program Review, dialog between the College and the FPT program can be encouraged and fostered. In an organization as dynamic as PCC, communication must be constantly attended to at every level. Continuous and improved communication will have direct and improved benefits for the FPT students.

Finally, this Program Review must become a living document. If not, it will only have served to fulfill an obligation put forth as part of the College’s accreditation requirement. However, if treated as a living document, it will meet the spirit of the accreditation requirement by serving as a mechanism for strengthening the FPT program.
Fire Protection Technology Program Advisory Committee Members:

Doug Branch, Fire Chief, Boring Fire District
Craig Callicotte, Fire Chief, Portland Airport Fire & Rescue
Michael Duyck, Fire Chief, Tualatin Valley Fire & Rescue
Levi Eckhardt, Captain, Banks Fire District #13
Scott Fisher, Division Chief, Portland Fire & Rescue
Mark Hornshuh, Academic Professional-EMS, Portland Community College
Eriks Gabliks, Director, Department of Public Safety Standards and Training
Dennis Katz, Battalion Chief (retired), Tualatin Valley Fire & Rescue
William Kendrix, Lieutenant (Retired), Portland Fire & Rescue, President and CEO, WEK Associates
Ed Kirchhofer, Fire Chief, Clackamas Fire District #1
John Klum, Fire Chief, Portland Fire & Rescue
Chris Lake, Division Chief/Training Officer, Scappoose Rural Fire Protection District
Don Lewis, EMS Training Supervisor, Portland Fire & Rescue
Dennis Mason, Fire Chief, Clark County Fire & Rescue
Jason McKinnon, Captain/Training Officer, Sandy Fire District #72
Gary McQueen, Fire Chief, Sandy Fire District #72
Jeff Nepstad, The Confederated Tribes of Grand Ronde
Dan O’Grady, Fire Service Administration Advisor, Eastern Oregon University
Gary Seidel, Fire Chief, Hillsboro Fire & Rescue
Jeff Stewart, Battalion Chief, Clark County Fire District #3
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SECTION 1
INTRODUCTION
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1.1 Program Overview

The FPT program has grown to a point where, on average, over 20 FPT courses are offered each term. The Program served 765 students in 2009-2010, an increase of over 200 students in a two year period. This is a direct result of what was previously known as “contract credit” and is now called “Off-site Sanctioned Occupational Training” (OSOT). The courses are offered through a variety of delivery modalities, including traditional classroom, weekend courses, distance learning, OSOT and Cooperative Education/Internships. Approximately 50% of the students are career firefighters that are already working in the field while the other 50% are students pursuing a career in the fire service. This combination of two identifiable cohorts has given the SAC reason to reassess the program degree requirements and to consider the development of a second degree track specifically designed to meet the needs of experienced fire fighters seeking promotion and leadership opportunities.

The program is housed on PCC’s Cascade Campus in the Public Safety Education Building (PSEB) where the program’s fire training tower serves as neighborhood landmark. The program has a fleet of vehicles that are used to help provide hands-on training. There is anecdotal evidence that the PCC FPT program as evolved to be the largest fire training program in the Northwest. Significant support from the College has given strength to the programs stability and improved the quality of instruction that can be delivered in manner recognized by industry.

Each year, 96 students begin the firefighter training academy known to many as FF Skill I and FF Skills II. These two courses (FP 111 & FP 112, respectively) are taken in sequence and account for 17 of the 104 credits required to earn the Associate of Applied Science Degree in Fire Protection Technology. Students begin with an introduction to the history, development, organization and structure of the fire service and basic firefighter skills training. The first year covers fire behavior, fire prevention and wildland firefighting and emergency medical technology. Students in their second year increase their technical knowledge and abilities in the areas of hydraulics, building construction, tactics and strategies, sprinkler systems and occupational safety and health.

There are two full-time faculty and one full-time temporary academic professional assigned to instruction and two three-quarter time lab technicians that work in the program and keep equipment and supplies ready and available for use in instruction. All FPT staff report to the Director of the Emergency Services Department (ESD). The Director of the ESD reports to the Dean of Allied Health, Emergency and Legal Services Division.

There are approximately 24 part-time faculty used at various times throughout the year to deliver courses. In addition, there are approximately 10 “casual” lab techs used to assist in deliver of psychomotor skills in courses where this is a component.

The program is limited by the number of fire engines and amount of protective clothing and equipment that is required for fire training. The number of fire fighters that the program can train is also restricted due to the National Fire Protection Associations (NFPA) requirement to provide live fire training to each student. Growth of the program over the last three years has been a result of partnering with fire agencies and expanding off site delivery of courses.

1.2 History

The PCC FPT program offered its first course in 1966 in what was known then as the Stadium Center located near what is now known as PGE Park in Northwest Portland. The program was moved several times over the years spending a number of years at PCC’s SE Center (1980-1992) and twelve years in Gresham. In 2004 as a result of the last Bond, a home at Cascade Campus was created that would for the first time provide a place for all of the Emergency Services Programs under one roof.
The first classes were held in a location known as the Stadium Center. A classroom located near the Portland Landmark now known as PGE Park. The program was moved to the PCC SE Center located on 82nd Avenue in south east Portland. The facility worked well for the fire program leading to more students and more fire service equipment. In 1989, there were four fire engines in lab area made for two fire engines. One engine was parked length ways in front of the other three that were backed into the fire bays. The first certificates to be awarded were Hazardous Materials Certificates. The first sign of the Fire Prevention Degree was in 1968 and that year only 3 students graduated. In 1990, PCC had one fire engine in Gresham, one engine in Clark County and one engine in Washington County. There was a part time faculty member at each location and fire fighting skills was delivered simultaneously at three different locations surrounding Portland.

The program worked well at SE Center, but SE Center was growing and more students were arriving each year. The fire program was out of drill space and had no drill area for students. In 1990, the fire hydrants located in the parking lot had to be relocated and parking had squeezed the program into one corner of the property. In 1992, an opportunity for the program to move to a fire training center emerged. The fire program was given the opportunity to move into a fire department training center once operated by Multnomah County Fire District 10. The Fire District was very supportive of the fire program and a one dollar a year lease was agreed to after negotiations with Mt. Hood Community College to approve of PCC’s venture into the MHCC tax district. The program staff continued to report to SE Center or Cascade Campus for over 12 years while the fire program grew and became increasingly recognized by metro area agencies. The facility served the fire program for many years and even though the cost of a lease created in the late-nineties created a cost to the College, the students continued to travel to the Gresham site for years and the program ran, and grew and evolved. There was always talk about moving the program into the PCC tax District and to bring is to the urban center of Portland. This was a direct effort to diversify the program. There was a lack of students of color in the program and the move to Cascade was planned to bring the program closer to a diverse community to increase visibility and hopefully the makeup of the student demographic. It took from about 1992 to 2000 to finally get voter approval to build new buildings at Cascade Campus and by fall of 2004, the program moved home to Cascade Campus.

While at the Gresham fire training facility, the program staffing grew to support level of demand on the program. The administrative assistant position was increased from 20 hours a week to 40 hours a week in 1994 and a second full-time FPT instructor was added in 1995. In the spring of 2004, three ¾ time instructional support technician (IST) positions were created to support day-to-day fire training and to add consistency to the fire academy. The program was ready for the move and looked forward to being on a campus and having additional support, resources, and a diverse community of which to be a part.

When the program arrived at Cascade Campus in 2004, the excitement was felt by everyone, staff, students and faculty. New classrooms, new labs, new drill grounds and new operational issues. Having a program that needed to block off half a parking lot on Fridays and Saturdays at Cascade Campus did raise some questions but soon the FPT Program was well settled in and by 2006 the program staff developed and hosted the first ever Oregon State Governors Fire Service Summit at Cascade Campus. Everyone had to compromise to make things work in the new facility.

Administrative support for the program has decreased since the retirement of the 40 year veteran administrative assistant, Debbi Covert and the support has yet to meet program needs since her departure three years ago. Administrative support has virtually disappeared for the fire program, even though the program requires a full-time administrative assistant. FTE continues to grow and has close to doubled since moving to Cascade Campus.

A new temporary Academic Professional (AP) position was created in 2009 and there are plans to make it permanent in 2011. The approval of the AP position has given the program a great opportunity to reach many long term goals and objectives that had been delayed. Anecdotal evidence indicates OSOT credit has been nearly tripled over the last three years as a direct result of hiring the Academic Professional. Progress on National Accreditation for the Fire Program has been significantly improved as a result of hiring a person qualified to do more than an inexperienced AP could have accomplished. The program is well underway toward international accreditation through the IFSAC.
SECTION 2

Educational Goals/Objectives
2.1 Program Goals and Objectives

A program’s goals and objectives must be a reflection of the Board’s vision, mission, values and goals. Without these statements by the Board, the program would lack direction. As a result, any discussion on program goals and objectives must include the vision, mission, values, and goals as set forth by the PCC Board of Directors. These are as follows:

Vision – Building futures for our Students and Communities

Mission – Portland Community College provides access to an affordable, quality education in an atmosphere that encourages the full realization of each individual’s potential. The college offers opportunities for academic, professional, and personal growth to students of all ages, races, cultures, economic levels, and previous educational experiences.

Statement of Values:

- Quality, lifelong learning experiences that helps students to achieve their personal and professional goals
- An environment that is committed to diversity as well as the dignity and worth of the individual
- Continuous professional and personal growth of our employees and students
- Effective teaching and student development programs that prepare students for their roles as citizens in a democratic society in a rapidly changing global economy
- Academic Freedom and Responsibility - creating a safe environment where competing beliefs and ideas can be openly discussed and debated
- Sustainable use of our resources
- Collaboration predicated upon a foundation of mutual trust and support
- An agile learning environment that is responsive to the changing educational needs of our students and the communities we serve
- Accountability based upon an outcomes-based approach in education
- The public’s trust by effective and ethical use of public and private resources

Goals:

1. Access: We will improve access to quality lifelong learning opportunities through the effective use of technology, affordable classes and the strategic location of facilities.

2. Student success: We will promote success for all students through outstanding teaching, student development programs, and support services in all that we do;
   - Professional technical education will be responsive to industry needs and prepare students to work in a global marketplace.
   - Transfer preparation will prepare students for success in obtaining baccalaureate degrees.
   - College readiness will promote student preparation for college-level programs and employment.
   - Community education/continuing education will provide quality education to enrich students personally, socially, culturally, and to upgrade occupational/job skills.

3. Diversity: We will enrich the educational experience by committing to the development of diversity in our student body, faculty and staff.

4. Continuous Improvement: We will develop, safeguard and allocate our resources (human, financial, capital, and technological) to ensure through planning and assessment the delivery of relevant, quality programs and services.

5. Cultivating Partnerships: We will effectively respond to the educational needs of our students and communities through strategic alliances with business, government agencies and educational institutions.

6. Community: We will facilitate growth and development of our district communities by accepting a leadership role and serving as a key educational resource to the community.

http://www.pcc.edu/about/administration/board/
Given PCC’s vision, mission, values, and goals, the FPT program has identified the following mission and goals:

**MISSION – Collaborate and partner with emergency response agencies, organizations, associations and educational institutions to provide high quality pre-employment training and education, and professional development opportunities for career and volunteer emergency response personnel to meet industry needs for a skilled and diverse professional workforce.**

**Goals:**
- Provide quality pre-employment training and education.
- Provide quality professional development training and education for region.
- Provide quality professional development opportunities for full-time faculty, staff, and part-time faculty.
- Develop strong connections with the fire service and the community for support of the program.
- Support cooperation and communication with regional, state, and national fire service organizations.

**Objectives:**
- Make the two-year associate degree student successful in the market place.
- Establishment of articulation with four-year Fire Administration institutions to facilitate the transfer of credits for students seeking bachelor and higher degrees.
- Use of the first year of FPT to prepare students for further career development.
- Establish regional hiring initiatives, including physical testing.
- Add more on-line training and education courses designed to meet national standards.
- Achieve accreditation of the FPT degree.
- Achieve accreditation for administering fire service certifications meeting national standards.
- Evaluate the current degree to ensure that it meets the need for pre-employment and professional development training and education.

**Fire Protection Technology Degree Outcomes (2007):**
- Describe local, state and national fire services; the role of the fire fighter and company officer in an organization; the mission of the fire service; nationally recognized standard operating procedures and rules and regulations as they apply to the fire fighter and fire officer.
- Describe fire department organizational structures; geographical configurations and characteristics of response districts; departmental operating procedures, emergency operations, incident management systems, and safety procedures; departmental budget processes; types of information management and recordkeeping; the fire prevention and building safety codes and ordinances applicable to the fire service; current trends, technologies, and socioeconomic and political factors that impact the fire service; cultural diversity; methods used by supervisors to obtain cooperation within a group of subordinates; the rights of management and members; types of agreements in force between the organizations and members; generally accepted ethical practices, including professional code of ethics; and policies and procedures regarding the operation of the department as they involve supervisors, department members, citizens, customers and the chain of command.
- Effectively communicate verbally and in writing utilizing technology; written reports, letters, and memos utilizing word processing and spreadsheet programs; operate in an information management system; and effectively operate at all levels in an incident management system.
- Articulate needs and goals of the potential employing agencies.
- Identify and describe the components and needs of a community related to fire protection.
- Relate the history of fire protection practices to contemporary policies, standards and codes.
Fire Protection Technology Degree Outcomes (2007): (continued)

- Evaluate and respond appropriately to situations requiring legal, moral and ethical judgments.
- Competently and proficiently demonstrate all skills required by NFPA 1001 Fire Fighter I and II Professional Qualifications.
- Demonstrate all knowledge required by NFPA 1001 Fire Fighter I and II Professional Qualifications.
- Demonstrate all knowledge required by NFPA 1001 Fire Fighter I and II Professional Qualifications.
- Demonstrate all knowledge required by NFPA 1021 Fire Officer I and II Professional Qualifications.

2.1(a) Comparison with National and/or Professional Trends or Guidelines

The goals, objectives, and program outcomes of the FPT program are closely based on the national professional qualifications published by the NFPA in their Codes and Standards.

The NFPA’s mission is to reduce the worldwide burden of fire and other hazards on the quality of life by providing and advocating consensus codes and standards, research, training, and education. NFPA develops, publishes, and disseminates more than 300 consensus codes and standards intended to minimize the possibility and effects of fire and other risks.

In the State of Oregon, the Oregon Department of Public Safety Standards and Training (DPSST) is the primary source of guidelines for fire service training and education. Its mission is to promote excellence in public safety by delivering quality training and developing and upholding professional standards for police, fire, corrections, parole and probation, and telecommunications personnel, in addition to licensing private security providers and private investigators in the state of Oregon.

Many of our students are, or will be, associated with emergency service departments in Oregon, and thus, the training that they receive here should mirror DPSST’s. In some cases, PCC instructors are able to give DPSST certification. DPSST is striving to match its standards to those of the NFPA.

The program realizes that post secondary education in emergency services is often fragmented from region to region. To combat this inconsistency in education, PCC is participating in the National Fire Academy’s (NFA), Fire and Emergency Services Higher Education (FESHE) program.

The FESHE mission is as follows:

To establish an organization of post-secondary institutions to promote higher education and to enhance the recognition of the fire and emergency services as profession to reduce loss of life and property from fire and other hazards.

FESHE members have made remarkable strides in developing:

- Model course outlines for fire-related and EMS Management degree programs in partnership with fire-related publishers to write textbooks that support them.
- Fostering culture change in Line of Duty Death prevention through a partnership between the FESHE community and the National Fallen Firefighters Foundation.
- Promoting academic research and scholarship and the development of students research skills.
- Development and adoption of a national program mark that represents the idea that within the ivory towers of higher education, firefighters and fire officers, armed with the knowledge and a college degree, can reduce the human and economic impact of fires in their communities.
In an effort to give our students a more relative education, the FPT program is seeking accreditation from IFSAC. The accrediting body is a peer driven, self governing, system which accredits both public fire service certification programs and higher education fire-related degree programs. IFSAC provides programmatic accreditation similar to other programs on campus, such as nursing, dental hygiene, and paramedic.

The IFSAC mission statement is as follows:

To increase the level of professionalism in the fire service through accreditation of those entities who work with Assemblies within the Congress, for the accreditation of fire service training and/or education, by increasing the coordination of efforts between the Assemblies of the Congress, and serve as a mechanism of arbitration on issues of debate between Assemblies.

Much of the curriculum, support material, and books that are utilized in the FPT program come from the International Fire Service Training Association (IFSTA). IFSTA is an association of fire service personnel who are dedicated to upgrading fire fighting techniques and safety through training.

The IFSTA mission is as follows:

To identify areas of need for training materials and foster the development and validation of training materials for the fire service and related areas.

PCC participates in partnerships with Eastern Oregon University (EOU) and Western Oregon University (WOU). PCC offers lower division courses that are transferable for students interested in pursuing a baccalaureate degree from either EOU or WOU in Fire Services Administration. Fire departments seeking administrators and supervisors increasingly expect candidates for those positions to have baccalaureate or higher degrees. Such degrees demonstrate the wide-ranging skills and knowledge necessary to manage complex and crucial challenges.

2.1(b) Changes Since Last Program Review

In the 2005 FPT Program Review, nine objectives were identified for the program the following are the changes as a result of those objectives.

- **Revision of FPT Degree**
  The program was revised in 2008 to meet the FESHE model curriculum for two-year Associate degree programs.

- **Revision FF Skills Courses**
  The Firefighter I Skills Academy (FP 111) and Firefighter II Skills Academy (FP 112) were revised in 2008 to meet the national professional qualifications as identified by the NFPA in NFPA 1001, Standard for Fire Fighter Professional Qualifications, 2008 edition. FP 111 was revised to meet NFPA 1001, Chapter 5 and FP 112 was revised to meet NFPA 1001, Chapter 6.

- **New Initiative for Fire Program AP position**
  A full-time, temporary, AP was hired for the FPT program in January, 2009.

- **IFSAC Accreditation Certificate Assembly**
  The FPT program took the first steps toward gaining IFSAC accreditation status for administering fire service certifications, known as Certificate Assembly accreditation. Note: It is anticipated that FPT program certification accreditation will be achieved by fall 2012.
- **IFSAC Accreditation Degree Assembly**
  The FPT program took the first steps toward gaining IFSAC accreditation status for the FPT degree, known as Degree Assembly accreditation. Note: It is anticipated that FPT program certification accreditation will be achieved by fall 2013.

- **Replacement of all SCBA**
  The FPT program achieved replacement of its outdated and non-compliant Self-Contained Breathing Apparatus (SCBA) in 2010. The program now has 25 “state-of-the-art” SCBA. Note: the program needs to begin replacement of the high-pressure air cylinders required as a component of the SCBA within the next five years.

- **Replacement of two engines**
  The FPT program took possession of three engines to replace its existing and aging fleet. Two engines were donated – one from Portland Fire and Rescue and one from Fire District #10. A third engine was acquired through a purchase from Clackamas County Fire District #1. This engine was required due to an unanticipated motor failure (the engine block cracked) of the one engine that had not been replaced by donations. In addition to replacing the two engines, the FPT program acquired a Type 6 Engine (brush rig) to be used during instruction of wildland classes.

- **CPAT test initiative**
  The FPT program imitated discussions with the fire program advisory committee to pursue pre-employment physical agility testing for area fire departments. These discussions are currently ongoing.

- **Online in-service annual training program designed to meet national standards**
  This initiative has not been addressed, as yet. However, the faculty and staff in the FPT program believe it has merit and should be pursued during the next five years.

### 2.1(c) Expected Changes in Next Five Years

For 2011-2016, the FPT program anticipates the following initiatives should be pursued:

- Add pre-employment physical agility testing for area fire department.
- Expand on-line learning opportunities.
- Replace SCBA air cylinders.
- Establish a presence in the Columbia County area.
- Evaluate the current AAS degree to determine if it meets the needs of our constituents, e.g., should we offer two degrees – a pre-employment degree and a fire service leadership degree.
- Revise curriculum in courses in order to keep them up-to-date with NFPA Standards.
- Revise program curriculum in order to keep it up to date with FESHE Model.
- Attain IFSAC certificate accreditation.
- Attain IFSAC degree accreditation.
- Revise CCOGs to make them consistent.
- Refine OSOT program.
- Provide a computer class in the program curriculum – this is a carry-over from the 2005 program review (see #3 below).
2.2 Changes as a Result of Last Program Review

In 2005, the program review made the following recommendations for program improvement (Program Review Final Report, April 2005):

1. **Develop a plan and budget for fire apparatus:** The need for fire apparatus is essential to the program. New innovations continue to evolve the fire engine and to stay on top of these innovations the program needs to purchase fire engines on an ongoing basis.

2. **Develop a written articulation agreement with Oregon Universities:** A written articulation agreement with Eastern and Western Oregon Universities should be signed by all concerned parties.

3. **Provide a computer class in the program curriculum:** Local Fire Chiefs have recommended that we include a computer class in our curriculum that is directly related to the fire service needs.

4. **Provide more incentive and opportunity for students to use the Intern Program:** As stated above we must work with Oregon fire departments so more students can take advantage of the Intern program in a local setting.

5. **Develop a course on how to apply for a job:** The fire service is very competitive and a class on how to apply, test and interview would make students more successful in their endeavors for a job.

6. **Provide a science lab classroom:** This would allow science experiments of mixing chemicals to show the reaction in a safe environment.

7. **Change the name of the Hazardous Materials Technician class:** Hazardous Materials Technician class should be changed to Haz Mat Awareness/Operations. The Technician level is a much higher level than is taught during this class.

8. **Change the PCC catalog for Building Construction:** Currently the catalog states that blueprint reading is part of the curriculum and blueprint reading is not covered in this class.

9. **Seek accreditation through IFSAC:** Becoming accredited gives more validity to the college program.

The following is a status update for each of the recommendations listed above.

1. **Develop a plan and budget for fire apparatus:** The need for fire apparatus is essential to the program. New innovations continue to evolve the fire engine and to stay on top of these innovations the program needs to purchase fire engines on an ongoing basis.

   An attempt to purchase three new fire engines failed to get on the current bond. Since that time three engines have been replaced, but no continuing plan has been put in place. The 1990 Pierce Engine purchased with Perkins Funds in 2004 needed to be replaced in 2010. The ESD replaced it with a 1996 FMI Engine purchased from Clackamas Fire District 1. The 1984 Western States donated by Tualatin Valley Fire & Rescue in 2004 was replaced with an upgraded 1984 Western States Engine by Portland Fire & Rescue. The third engine replaced was a 1984 LaFrance Engine that had been donated by Multnomah County Fire District 10 in 1992. A 1990 Pierce Engine was donated by Fire District 10 in 2007 to replace the LaFrance. In 2009 the program was awarded Perkins Funds to purchase a 1997 Brush Truck to expand wildland fire training. The wildland truck has seen little use. This is because at this time PCC does not have a wildland degree or extensive program. It is used two to four times each year to support instruction of FP 280B. (Note: FP 280B was scheduled during fall 2010, but was cancelled due to low enrollment. As a result, the brush rig has not been used as intended since April 2010.)

2. **Develop a written articulation agreement with Oregon Universities:** A written articulation agreement with Eastern and Western Oregon Universities should be signed by all concerned parties.

   Talks have progressed with Eastern Oregon University in an effort to articulate the AAS in Fire Protection Technology with the BS in Fire Service Administration. EOU has recently lost and now replaced the FSA Program Coordinator. This has stalled further discussion. This has not created a problem since we are able to work directly with EOU staff to insure a seamless transfer of PCC students into the Bachelor Degree Program. PCC continues to receive calls every week from students seeking the Bachelor Degree from EOU that need to take lower division FPT courses to be accepted into the Bachelor Degree Program. A significant number of these students come from outside of PCC’s District and continue to work on their AAS Degree while they are dual enrolled in their FSA Program at EOU. An articulation agreement was signed between PCC and Grand Canyon University (GCU) in 2006, but has had very little, if any, impact on the PCC FPT Program. Because of the limited impact, the agreement with GCU should be discontinued.
3. **Provide a computer class in the program curriculum:** local Fire Chiefs have recommended that we include a computer class in our curriculum that is directly related to the fire service needs.

   No work in this area has been completed.

4. **Provide more incentive and opportunity for students to use the Intern Program:** As stated above we must work with Oregon fire departments so more students can take advantage of the Intern program in a local setting.

   The re-design the AAS Degree in Fire Protection Technology in 2008 established the requirement for students to complete four terms of cooperative education. The incentive and opportunity for students to take advantage of a one year service learning experience at one of twenty regional emergency service agencies has increased enrollment in FP 280A Cooperative Education 176.4%. This increase represents an increase in the number of students from 18 in fall 2008 to 32 in fall of 2009 and another 66% increase to 48 students registered and serving their community in fall of 2010. This will now level out and remain significantly higher than prior to 2007 when the average number of students registered for FP 280A was 12 to 15. The completion of one year of work experience also qualifies students to apply for certification as an Oregon State (DPSST) Fire Fighter II, which is the primary outcome for the FPT degree.

5. **Develop a course on how to apply for a job:** The fire service is very competitive and a class on how to apply, test and interview would make students more successful in their endeavors for a job.

   This course has been in the PCC system for years but needs to be revised. The course is currently on the Winter Schedule but routinely cancels due to lack of enrollment. It is not required for the Degree and therefore needs to be revised to attract current students. One member of the FPT staff has asked to be assigned to revising the class. At present time he has not been funded to work on the revision and is not familiar with College IIP Grants or the curriculum process to make much headway until he is assisted by full-time staff. Due to heavy workloads for full-time staff, this class may not be a priority until January of 2011.

6. **Provide a science lab classroom:** This would allow science experiments of mixing chemicals to show the reaction in a safe environment.

   This would require a bond initiative or collaboration with labs already available on Campus. A list of experiment’s needs to be developed that would be of value to FPT students so that the feasibility of FPT instructors using an available lab could be considered. This should be a topic of discussion with the new Math and Science Division Dean after the person is brought on-board.

7. **Change the name of the Hazardous Materials Technician class:** Hazardous Materials Technician class should be changed to Haz Mat Awareness/Operations. The Technician level is a much higher level than is taught during this class.

   Revision of FP 123 was accomplished in 2007 and has since been revised to meet current national standards in NFPA 472-2002.

8. **Change the PCC catalog for Building Construction:** Currently the catalog states that blueprint reading is part of the curriculum and blueprint reading is not covered in this class.

   This was completed. FP 211 is Building Construction for Fire Fighters.
9. **Seek accreditation through IFSAC: Becoming accredited gives more validity to the college program.**

The process of becoming accredited through IFSAC has been on the table for many years. In 2007, when the FPT program initiated contact with DPSST, there was some resistance to support more than one entity in the State in the accreditation process. This was based on interpretation of IFSAC By-Laws by Chemeketa Community College (CCC) and DPSST. At that time, program staffing was not adequate to take on National Accreditation even though it was established as a program goal in 2007. Once a new initiative was given support to add an AP position to FPT staffing, the possibility was reconsidered.

In fall of 2008, CCC and DPSST were contacted to reconsider supporting PCC’s effort to attain National Accreditation through IFSAC for certification accreditation. A meeting was arranged for February 2009 where PCC was able to establish our commitment to the accreditation process. CCC had applied for accreditation but had exceeded the time limit to continue the process unless they were to reapply. CCC personnel decided to opt out of the process and relinquish their responsibility over to PCC. DPSST then agreed to support PCC’s efforts to become the only IFSAC accredited entity in Oregon to be authorized to grant IFSAC Certificates. This new opportunity will require a significant long term commitment from PCC. It is a prestigious responsibility for the fire program to serve not only our students but also fire fighters from across the State of Oregon by providing IFSAC Certifications and Degrees. A plan was submitted to the Dean of Instruction and the FPT Program was approved to move forward with the accreditation process. Since 2009, the program has applied for and been accepted as a member of both the Degree Assembly and the Certificate Assembly. FPT staff have attended two annual IFSAC conferences and work on IFSAC Accreditation continues to move forward at rapid speed. Once this is accomplished, the program will have taken a giant step forward in regional and national recognition of the PCC FPT program.

**NOTE:** The following are additional changes that have occurred since the last program review:

10. **Advisory Committee re-established**

    A FPT Program Advisory Committee which had been dormant for several years was re-established in 2010. The committee has met 3 times; April 1, May 26, and October 27. The committee has provided valuable input. Minutes from the Advisory Committee meetings are located in Appendix C of this document.

11. **Establishment of Core Outcomes**

    In 2007, the FPT program established core outcomes for students graduating with an AAS degree in Fire Protection Technology. The following are the Degree Outcomes:

    - Describe local, state and national fire services; the role of the fire fighter and company officer in an organization; the mission of the fire service; nationally recognized standard operating procedures and rules and regulations as they apply to the fire fighter and fire officer.
    - Describe fire department organizational structures; geographical configurations and characteristics of response districts; departmental operating procedures, emergency operations, incident management systems, and safety procedures; departmental budget processes; types of information management and recordkeeping; the fire prevention and building safety codes and ordinances applicable to the fire service; current trends, technologies, and socioeconomic and political factors that impact the fire service; cultural diversity; methods used by supervisors to obtain cooperation within a group of subordinates; the rights of management and members; types of agreements in force between the organizations and members; generally accepted ethical practices, including professional code of ethics; and policies and procedures regarding the operation of the department as they involve supervisors, department members, citizens, customers and the chain of command.
    - Effectively communicate verbally and in writing utilizing technology; written reports, letters, and memos utilizing word processing and spreadsheet programs; operate in an information management system; and effectively operate at all levels in an incident management system.
    - Articulate needs and goals of the potential employing agencies.
• Identify and describe the components and needs of a community related to fire protection.
• Relate the history of fire protection practices to contemporary policies, standards and codes.
• Evaluate and respond appropriately to situations requiring legal, moral and ethical judgments.
• Competently and proficiently demonstrate all skills required by NFPA 1001 Fire Fighter I and II Professional Qualifications.
• Demonstrate all knowledge required by NFPA 1001 Fire Fighter I and II Professional Qualifications.
• Demonstrate all knowledge required by NFPA 1001 Fire Fighter I and II Professional Qualifications.
• Demonstrate all knowledge required by NFPA 1021 Fire Officer I and II Professional Qualifications.

12. Revision of Core Outcomes (November 2010)

The Following are the revisions:

1. Upon completion of the program the student will meet the fire-related performance objectives in NFPA 1001, Standard for Fire Fighter Professional Qualifications, Fire Fighter I and II, which include:
   (a) Perform duties safely and effectively in accordance with the fire department organizational structure.
   (b) Communicate effectively with the general public, crew members, supervisors, and other emergency responders.
   (c) Operate safely and effectively on an emergency scene
   (d) Perform safely and effectively as a member of a team during a rescue operation.
   (e) Perform prevention, preparedness, and maintenance activities related to reducing the loss of life and property due to fire through hazard identification, inspection, and response readiness.
2. Upon completion of the program the student will meet all the requirements of NFPA 472, Standard for Competencies of responders to Hazardous Material/Weapons of Mass Destruction Incidents which include:
   (a) Recognize the presence of the hazardous materials/WMD, protect themselves, call for trained personnel, and secure the scene. (Awareness)
   (b) Respond to hazardous materials/WMD incidents for the purpose of protecting nearby persons, the environment, and property from the effects of the release. (Operations)
3. Upon completion of the program the student will meet the application requirements set by the National Registry of Emergency Medical Technicians which include:
   (a) Act in accordance with the ethical and professional medical standards of the entry level EMT Basic.
   (b) Meet the academic eligibility requirements for taking both cognitive and practical State and National Certification examinations at the EMT Basic level.
   (c) Demonstrate communication skills of the medical environment in order to develop and maintain professional client relationships at the EMT Basic level.
   (d) Demonstrate the professional and technical skill set necessary to meet the EMT Basic standard of care in a safe manner under diverse conditions.

13. Revision of AAS Degree 2008

In 2008, the AAS in Fire Protection Technology degree was revised. Degree curriculum changes were made to bring the degree in-line with the model recommended by FESHE for associate degree programs and in response to current demands by PCC’s fire service constituents.
14. Revision of AAS Degree 2010

In 2010 it was identified that there were some unintended consequences that developed as a result to the 2008 FPT degree revision. The 2008 revision created problems for the college’s student record and graduation departments. These issues have been recently addressed with a new proposal for a revision of the 2008 AAS FPT Degree. The new proposal incorporates new program degree outcomes, adds new courses recommended by the fire advisory committee and establishes alternative courses for students that are currently working in the fire service as opposed to those seeking entry level employment. The proposed revision will be a short term fix to some unintended consequences and will give the fire program staff flexibility to work with the two easily identifiable types of students mentioned above seeking the AAS Degree. The adoption of the new revision will also give program stakeholders the opportunity to take a fresh look at the Degree and to determine if the Degree itself needs to be re-developed from the ground up and if a second Degree will be needed to meet the needs of two significantly different types of students in the future.

15. Develop more on line course offerings

PCC Fire Protection Technology program in conjunction with Distance Learning will be developing course for on line delivery in an ongoing effort to ensure courses are accessible to student who reside outside of PCC’s district or find that attending traditional in classroom course doesn't fit their life style.

In addition too getting more courses on line, the integration of new technology such as Camstasia, Mediasite, Illuminate, and other into the on line format has been more aggressively pursued to meet the expectations of the new generations.
SECTION 3

Curriculum
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3.1 Changes Made to Improve Attainment of Course-Level Outcomes

Attainment of course level outcomes has improved to match up with the NFPA standard associated with the individual courses. An example is the recent revision of FP 200 and FP 232; Driver Operator course that now mirrors the outcomes set by the NFPA and Oregon Department of Public Safety and Standards Training. Another example is FP 111; Firefighter I Skills Academy that has been revised to reflect the outcomes set by NFPA and DPSST. With these adjustments, the course outcomes and the degree outcomes are assessed in the 12 credit FP 280A; Co-operative Education courses. As the program moves closer to IFSAC accreditation, assessment of the course outcomes will be much more apparent.

3.2 College Core Outcomes

3.2(1) How College Core Outcomes are Addressed in Courses and/or Align with Program and/or Course Outcomes

COLLEGE CORE OUTCOMES:

Graduates of Portland Community College should be able to:

**Communication**

Communicate effectively by determining the purpose, audience and context of communication, and respond to feedback to improve clarity, coherence and effectiveness in workplace, community and academic pursuits.

Effective communication is a core ingredient for successful emergency service operations. Communications both verbal and written are taught, used, and stressed in the majority of the FPT courses. Verbal communications is used during all manipulative skills training activities. Once the student is in the 200 level courses, written communication is stressed in the development of incident action plans and reports of incidents and investigations.

**Community and Environmental Responsibility**

Apply scientific, cultural and political perspectives to natural and social systems and use an understanding of social change and social action to address the consequences of local and global human activity.

The central component of emergency service activity is managing people and their problems. Embedded in the FPT course is the strong sense of customer service which takes the emergency service provider with the ability to go beyond fixing the main reason that the customer called 911. This includes securing their home and property, addressing the needs of those who are close to the incident but not directly involved, and in some cases returning to the scene to ensure that hazards have been neutralized. The program is addressing this in FP 122, Introduction to Fire Prevention, by recommending students take a Management Supervisory course in customer service and embedding instruction in most of the courses.

FP 123 Haz Mat Awareness/Operations is a first year core course that addresses the responsibility that emergency service providers have when it comes mitigating spills, leaks, and releases substances that are harmful to life, the environment, and property either by accident or intentional actions.
Critical Thinking and Problem Solving
Identify and investigate problems, evaluate information and its sources, and use appropriate methods of reasoning to develop creative and practical solutions to personal, professional and community issues.

The FPT curriculum is based on critical thinking and problem solving so all of the courses are designed to give students the base knowledge of what can be done to mitigate an incident and require the student to apply that knowledge in different situations.

Cultural Awareness
Use an understanding of the variations in human culture, perspectives and forms of expression to constructively address issues that arise out of cultural differences in the workplace and community.

As stated before, customer service is an integral part of the emergency service and is a trait expressed by the advisory committee that is being addressed in FP 122 and MSD 117, as well as other FPT courses. Team work and getting along with individuals is addresses and part of the grading structure of the FP 111 and FP 112, Firefighter I & II Skills Academy classes. For safe and efficient emergency scene operations, teamwork and getting along and understanding other people isn’t desired, it is a must.

Professional Competence
Demonstrate and apply the knowledge, skills and attitudes necessary to enter and succeed in a defined profession or advanced academic program.

Many of the FPT courses correspond to professional competences as set by the NFPA and DPSST. Students must demonstrate the skills needed to obtain certain certifications, such as Firefighter I, Firefighter II, Haz Mat Awareness/Operation, Fire Officer I, Emergency Service Instructor I, and Driver/Pumper Operator.

Self-Reflection
Assess, examine and reflect on one’s own academic skill, professional competence and personal beliefs and how these impact others.

Students that are enrolled in FPT Cooperative Education courses are required to keep a journal that covers the activities that they participated in and were a part of during their time with an emergency response agency. In these classes, the student will apply the knowledge and skills that they received in the 100 level classes to address and solve real world problems. The individual journals reflect those activities.
3.2(2) Core Outcomes Mapping Matrix

**CORE OUTCOMES MAPPING**

**SAC FPT: Fire Protection Technology**

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<th>Core Outcomes:</th>
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<td>0. Not Applicable.</td>
<td>1. Communication.</td>
</tr>
<tr>
<td>1. Limited demonstration or application of knowledge and skills.</td>
<td>2. Community and Environmental Responsibility.</td>
</tr>
<tr>
<td>2. Basic demonstration and application of knowledge and skills.</td>
<td>3. Critical Thinking and Problem Solving.</td>
</tr>
<tr>
<td>3. Demonstrated comprehension and is able to apply essential knowledge and skills.</td>
<td>4. Cultural Awareness.</td>
</tr>
<tr>
<td>4. Demonstrates thorough, effective and/or sophisticated application of knowledge and skills.</td>
<td>5. Professional Competence.</td>
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**List of Courses**

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*Figure 3-1 (continued on next page)*
3.3 Assessment of College Core Outcomes

3.3(1) Strategies Used to Determine How Well Students Meet College Core Outcomes

The FPT program capstone classes are the 12 credits or four terms of cooperative education where the students exhibit the vast majority of the college core outcomes. Cooperative education provides the students the real life scenarios to demonstrate the skills that they have been taught in the degree courses. Students will get feedback constantly and immediately from the field mentors.

Communications, critical thinking, professional competency, cultural awareness, community responsibility and self reflection are intertwined in emergency service operations because everyone on scene must make and act on decisions made in a very short time with a minimum of information.

The individual courses within the degree focus on specific aspects of emergency services and at the same time correlate it to the larger picture. What is learned in Hazardous materials can be applied to rescue incidents, what is learned in Fire Behavior and Combustion will be used in tactics and strategies. Each course causes the student to think about what should be done to mitigate the situation or event to the best of the resources that are available.

No other industry requires that its human resources be so widely knowledgeable about so many things. Within each course the outcomes are assessed by written examinations as well as practical application of knowledge acquired and in many cases a term project.

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<td>FP 9130</td>
<td>Hazardous Materials Inspection</td>
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<tr>
<td>FP 9140</td>
<td>Fire Officer I</td>
<td>3</td>
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<td>FP 9150</td>
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<td>FP 9210</td>
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<td>2</td>
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<td>FP 9250</td>
<td>Advanced Fire And Arson Investigation</td>
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<td>FP 9410</td>
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</tr>
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<td>FP 9520</td>
<td>Advanced Wildland Fire Behavior</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
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<td>2</td>
</tr>
</tbody>
</table>

Figure 3-1
Feedback from representatives of the industry is another aspect of assessing the outcomes. Having active program representation with the Northwest Association of Fire Trainers (NAFT) and Western Washington County Training Association (WWCTA), along with the FPT Advisory Committee, provides the program with constant and current assessment of the program and its students.

Our part time instructors come from active duty in the field and they provide the program with continued assessment of the program and its products.

3.3(2) Summary of Assessments of College Core Outcomes

The core outcomes are embedded within assessment mechanism used for each course in the Program. Each course assessment addresses the College’s core outcomes at the appropriate level as dictated by the Core Outcomes Mapping Matrix.

Examples:
- FP 111, Firefighter I Skills Academy, Core Outcome – 3 (critical thinking and problem solving); students are required to demonstrate this core outcome at mapping level-2 (basic demonstrate and application of knowledge and skills) through cognitive and psychomotor assessment.
- FP 123, Haz Mat Awareness/Operations, Core Outcome – 1 (communication); students are required to demonstrate this core outcome at mapping level-2 (basic demonstrate and application of knowledge and skills) through cognitive assessment.

3.3(3) Assessment-Driven Changes Made to Improve Student Attainment of College Core Outcomes

Currently, there is no formal method for assessment to determine if students are achieving college core outcomes or program outcomes. However, the FPT program is currently developing a mechanism for assessment of outcomes. This is part of a PCC initiative that requires all programs to bring their assessment process in-line with the college’s method. Once the revisions are made, the FPT program will implement the changes. The first step in this revision occurred in November, 2010.

3.4 Distance Learning

3.4(a) Degree to Which Courses are Offered in a Distance Modality

The general philosophy of the program is that not everyone is able to attend traditional class settings, due to a host of reasons, such as obligations of work and family. Also, a number of distance learning students do not live in the commutable area. Another reason to offer classes in this genre, is that some students just learn better in the on line environment that is free of distraction of a normal classroom setting. Students who are already working in the field and have the classes that have practical skills associated with them can actually complete their degree completely on line. Distance learning classes offers these students the flexibility to receive subject matter at their own pace and convenience.

The FPT program currently has 59 courses listed on the college’s web site with approved CCOGs (Figure 3-1). Of these 59 courses, 16 are approved for deliver in a distance learning modality (Figure 3-2). This equates to 27% of the FPT program’s approved courses. Of the 16 courses available in a distance learning format, 9 are core courses and 7 are technical electives. The 9 core courses represent 27 credits and the 7 technical electives represent 15, for a total of 42 credits.
Each term, approximately, 18% of the courses scheduled are available through distance learning (Figure 3-3). The number of courses scheduled in a distance learning format varies each term, but on average, the program attempts to offer approximately 4 courses (12 credits).

It is our intention to offer the online classes on a rotating basis throughout the year in order to capture interested students. We are also seeing a growing number of classes where the instructors are using the LMS to deliver quizzes, assignments, and/or keep track of grades. The FPT program, currently, does not utilize hybrid type course, e.g., part of the course online and part of the course in the classroom. EOU utilizes this format for some course and PCC may want to consider it.

It is anticipated that 4 additional elective classes will be developed for delivery in a distance learning format during the 2010/2011 academic year. With the addition of the 4 courses, this will represent 10 credits.

### FPT Courses Available in Distance Learning Format

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>FP 101</td>
<td>Introduction to Fire Protection</td>
</tr>
<tr>
<td>FP 121</td>
<td>Fire Science I</td>
</tr>
<tr>
<td>FP 122</td>
<td>Fundamentals of Fire Prevention</td>
</tr>
<tr>
<td>FP 123</td>
<td>Hazardous Materials</td>
</tr>
<tr>
<td>FP 133</td>
<td>Natural Cover Forest Firefighting</td>
</tr>
<tr>
<td>FP 201</td>
<td>Fixed Systems and Extinguishers</td>
</tr>
<tr>
<td>FP 203A</td>
<td>Introduction to Tactics and Strategies</td>
</tr>
<tr>
<td>FP 211</td>
<td>Building Construction</td>
</tr>
<tr>
<td>FP 212</td>
<td>Fire Investigation</td>
</tr>
<tr>
<td>FP 213</td>
<td>Principles of Supervision</td>
</tr>
<tr>
<td>FP 242</td>
<td>Flammable, Explosive, Toxic Materials</td>
</tr>
<tr>
<td>FP 243</td>
<td>Laws Affecting Firefighters</td>
</tr>
<tr>
<td>FP 9020</td>
<td>Fire Department Budgets</td>
</tr>
<tr>
<td>FP 9030</td>
<td>Public Relations, Education and Information</td>
</tr>
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<td>FP 9070</td>
<td>Major Emergency Tactics and Strategy</td>
</tr>
<tr>
<td>FP 9120</td>
<td>Fire Codes and Related Ordinances</td>
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### FPT Program Offerings through Distance Learning Format – 2008-2010

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<tr>
<th>Year</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
<th>Total</th>
</tr>
</thead>
<tbody>
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<td>71</td>
<td>80</td>
<td>37</td>
<td>76</td>
<td>264</td>
</tr>
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<table>
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<tr>
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<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
<th>Fall</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
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<td>80</td>
<td>41</td>
<td>80</td>
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<td>15</td>
<td>12</td>
<td>12</td>
<td>48</td>
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<th>Summer</th>
<th>Fall</th>
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### Summary Total

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</tr>
<tr>
<td># of DL Credits Offered – 2008-2010</td>
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</tr>
<tr>
<td>% of Total Credits Offered – 2008-2010</td>
<td>17.7</td>
</tr>
</tbody>
</table>
3.4(b) Significant Revelations, Concerns and/or Questions Arising From Distance Learning Delivery

The following was submitted by Doug Smith: In the time that I have spent delivering courses on line, I have observed both from personal observation and course critiques some issues concerning distance learning courses.

- Students not having the appropriate computer technology such as software, proper internet connections, and up to date hardware.
- Students lacking in the computer skills needed to navigate in the on line environment.
- Bad experience with the learning platform either real or conceived which also may create a lack of trust in the system causing the students to revert to other trusted measures.
- Performing on line class activity in a location not conducive to this type of learning such as while on duty at a fire station and getting an emergency call mid way through a quiz.
- It is difficult to hold students accountable or to assist them if they are struggling.
- The student must have discipline to progress through the class. Many wait until the last minute to conduct course activity.
- Cheating, sharing information, plagiarism, and other acts that misrepresent the integrity of the student.

3.5 Curriculum Changes as a Result of Exploring/Adopting Educational Initiatives

FP 208: Emergency Operations Safety & Survival; New course, National FESHE initiative/campaign to reduce line of duty deaths through education

FP 280A Core requirement increased from one term two four terms. This new requirement is a result of the Service Learning initiative and allows students to meet State requirements for certification as a Fire Fighter. Students work in a fire department for up to 6720 hours in a one year internship.

FP 9140 Fire Officer I; Course being revised to change course number, outcomes will be revised to meet Honors Program course requirements and establish an Honors class for a CTE Program. This Honors class will be a value to emergency service providers seeking a leadership program in their discipline area.

It is our intention that students gain knowledge that will empower them to be successful on their own. Helping them obtain skills for a career is obvious but getting them to be well rounded humans that readily contribute to society is also embedded in our program. Service learning where students go out into the community and help make it better is a part of the degree requirements in the form of co-operative education. This where the student may spend four terms in a hosting fire department operating as an emergency responder but also performing the day to day duties of fire prevention, public education, and generally “giving back to the community” by serving the community during it's time of need.

- Other activities that students can choose to be a part of involve the Student Fire Fighter Association. The activities that SFFA members have participated aren't connect to any course of study but they greatly enhance to overall experience that the student has here at PCC. Some of the activities include:
  - Raising money for the Cystic Fibrosis foundation and participating in the Portland stair climb.
  - Hosting a table at the Cascade Job Fair.
  - Hillsboro Air Show static display with a PCC fire engine
  - participating in National Night Out at Cascade Campus
  - Hosting a tour of the ESD resources for the summer program of Self Enhancement, Inc. (a charter school).
  - Organizing and hosting neighborhood safety information fair in the truck bay at PSEB.
3.6  Changes to Course Content and/or Course Outcomes since Last Program Review

FP 101, Introduction to Fire Protection – Name change to Principles of Emergency Services to align with the FESHE recommend model. Change the description and the outcomes to reflect a more accurate description and to make it concurrent with the national standards. This class is now the pre-requisite for FP 111 which will empower the student to enroll themselves in the next available FP 111 class removing the burden of pre-testing physical abilities from the FPT staff. The physical agility assessment is now embedded in this course.

FP 111, Firefighter I Skills Academy – Content, outcomes and contact time were change from eight hours per week to 16 hours per week. Two sections are offered each fall and spring terms for a total of 32 hours per week of course work. The additional hours were required to meet national standards. This doubled the cost of instruction and the required program support. The description was changed to clean up the wording by using active verbs and present an accurate description of what is done in the class. The learning outcomes were revised to clean up the wording and connect the outcomes to the NFPA standard. FP 101 was added as a prerequisite. The credit hours were increased to allow for the larger course content recommended by the NFPA standard.

FP 112, Firefighter II Skills Academy – Content, outcomes and contact time were changed from eight hours per week to 12 hours per week. Two sections are offered each winter and summer terms for a total of 24 hours per week of course work. The additional hours were required to meet national standards. This doubled the cost of instruction and the required program support.

FP 121, Fire Science I – Title change to Fire Behavior and Combustion and outcomes changed to line up with FESHE Model Curriculum.

FP 123, Hazardous Materials Technician – The title was changed to Haz Mat Awareness/Operations. In addition, the outcomes were changed to bring the course in line with national standards.

FP 200, Fire Service Hydraulics and Water Supply – Added to the degree requirements as recommended by the Fire and Emergency Service Higher Education curriculum model and the FPT Fire Advisory committee. The name was changed to Fire Apparatus Driver/Operator I to coincide with NFPA and DPSST standards. In addition, FP 232 was add as a co-requisite.

FP 208, Emergency Operations Safety & Survival – New course added to address a National initiative aimed at reducing firefighter line-of-duty deaths through education.

FP 210, Multicultural Strategies for Firefighters – New class; created at the recommendation of the SAC and FPT Advisory Committee. New class to provide familiarization with communication styles, customs, language and behavior patterns of various cultures, ethnic groups and non-traditional populations a employed by and encountered by the emergency services personnel.

PHL 202 Introduction to Philosophy: Elementary Ethics – Proposed new core requirement created at the recommendation of the SAC and FPT Advisory Committee.

FP 214, Occupational Safety and Health for the Fire Service – New class created at the recommendation of the SAC and FPT Advisory Committee and designed to introduce the basic concepts of occupational health and safety as it relates to emergency services organizations.
FP 232, Pump Construction and Hydraulics II – Added to the degree requirements as recommended by the Fire and Emergency Service Higher Education and the fire advisory board. Name change to Fire Apparatus Driver/Operator II to coincide with NFPA and DPSST standards. The description was changed to remove references made to the Oregon Fire Standards and Accreditation Board, which was changed to DPSST. Revised the learning outcomes to reflect the intent of NFPA and DPSST standards. In addition, FP 200 was add as a co-requisite.

3.7 Contract Credit [Off-site Sanctioned Occupational Training (OSOT)]

This section is in addition to the required documentation for the Program Review. It has been added because it accounts for a significant number of student head count and FTEs in the FPT program.

Throughout the year, local fire departments, regional training associations, and state training agencies provide training and education opportunities for career and volunteer firefighters. In many cases, these opportunities are similar or equivalent to training and education provided by the FPT program through its traditional and distance learning courses. Recognizing and awarding credit for these outside opportunities (outside of PCC) provides firefighters with an opportunity to advance their way toward a post-secondary degree without duplication of training and education effort.

In testimony before the U.S. Senate Special Committee on Aging, February 28, 2007, Dr. Preston Pulliams said,

“To stay competitive in a changing labor market, older workers require skills training and education; however few have the luxury to complete a four-year degree, or perhaps even a two-year degree, through a traditional semester or quarter system. Juggling work, home, family, and school obligations, older students are extremely motivated to complete their studies in a relatively short timeframe and through alternative modalities, such as distance learning, to enable them to translate their education quickly into meaningful employment. Colleges can do much to support the older student, by increasing flexibility in class scheduling and content, providing credit for prior work-based learning, expanding counseling and advising services to assist older students to successfully reach their goals, and developing internships and other workplace training programs in partnership with local employers in the community.”

Dr. Pulliams’ statement provides the rationale for pursuing a mechanism for awarding credit for prior work-based learning. However, we should not move haphazardly toward this end. As Dr. Craig Kolins wrote in his Administrative Response to Program Review Gerontology, April 26, 2010, regarding the recognition of students’ previous work experience and non-traditional learning, “It is important that all Portland Community College degrees and certificates must stand the test of rigor, integrity, and speaks to the students’ academic discipline and achievements.”

The awarding of credit for previous work experience and non-traditional learning is a challenging task. Some of these challenges include the following:

- Are there comparable learning outcomes?
- Are learning outcomes achieved at a comparable level of mastery?
- Is the “quality” of instruction comparable?
- Is the course delivery comparable, i.e., instructional time and support/media?
- Is there a mechanism for assessing instruction and curriculum?

Additional concerns pointed out by Scott Huff in correspondence with FPT faculty and staff include:

- Are the credits being used to meet PCC’s residency requirements?
- Transfer of credit to post-secondary programs, e.g., to EOU’s Fire Service Administration program.
- Students’ eligibility for or receipt of financial aid.
- Students’ eligibility for or receipt of veterans’ benefits.
In order to address the issue of awarding credit for previous work-based credit and/or non-traditional learning, we must first define it. According to PCC’s Educational Advisory Committee’s (EAC) Task Force on Credit for Prior Learning (CPL) the definition is:

“an assessment process that determines the individual’s non-college or experience-based college-level learning attained outside the sponsorship of accredited postsecondary education institutions to determine the extent to which that individual has achieved the required learning outcomes, competency outcomes, or standards for entry to, and/or partial or total completion of, a qualification. It may include learning acquired from work and life experiences; correspondence and volunteer work; and participation in informal courses and in-service training sponsored by associations, business, government and industry.”
http://www.pcc.edu/resources/academic/eac/assessment/

Although the FPT program has traditionally referred to this as Contract Credit or Non-traditional Credit, it would appear, based on the EAC Task Force definition, we are talking about Credit for Prior Learning.

In an effort to ensure these outside training and education opportunities are comparable to similar opportunities offered through the FPT program, the FPT program has proposed a system referred to as Off-site Sanctioned Occupational Training (OSOT). This system strives to ensure that the outside training/education opportunity is comparable to that which would have been received if the student had taken the training/education through PCC.

It is important to differentiate between Contract Credit (OSOT) and Non-Traditional Credit or Credit for Prior Learning. The difference being is that Contract credit is approved and the integrity is assured by full collaboration with the College and the FPT SAC. The credit is awarded for courses as they are delivered, not after the fact or for previous work experience. Although Non-Traditional Credit policies and procedures of the College are well recognized and a valued avenue for rewarding credit for training a student has already completed, OSOT credit is intended to meet all of the College’s academic requirements as well all of the College’s policies for residency credit.

At this time, there are no standard guidelines for administering the OSOT. The FPT program needs to identify how credit is awarded through OSOT. The guidelines should reflect PCC requirements for awarding CPL. In the Administrative Response to Program Review Gerontology, Dr. Craig Kolins made the following recommendation.

If a department wishes to award credit for prior learning/experience, the Registrar will need to be involved and monitor the awarding of Credit for Prior Learning via the non-traditional credit standards that are already in place at the College. Granting credit for prior learning is done based upon evidence or experience that is documented by certifications, training, transcripts, course outlines/outcomes, or other credentialed experiences. To move to the portfolio model, and to ensure that portfolios are appropriately prepared and speak to learning rigorous experiences, would require significant investment of resources in faculty and academic professional personnel, training, process, and outcomes. This would have to be a new initiative that would garner significant monetary support from the College and would have to reside in the Office of Registrar along with the many other forms of non-traditional credit the college awards (such as CLEP, AP, military credit, etc).

We might assume his remarks could well be applied to the FPT program. In addition to Dr. Kolins remarks, we could well look at how other colleges address awarding credit for previous work experience and non-traditional learning. The EAC Task Force in January, 2006, surveyed over 20 colleges and universities for “best practices/fact finding for prior learning credit.”

Given the many concerns and potential liability connected with the current method/system of awarding credit for work experience and/or outside learning, the FPT program should develop policies and procedures consistent current PCC policies and best practices regionally and nationally.
3.8 Course Scheduling Summary

This section is in addition to the required documentation for the Program Review. It has been added because it reflects how often courses are offered and in what format, i.e., distance learning or traditional. Based on the number of courses taught at least once since winter term 2008, 42.1% are available in a distance learning format. This equates to 37.3% of the total possible credits offered.

It should be noted, there are 21 courses that have not been offered at least once in the past 3 years (12 terms). In fact, based on Curriculum Committee minutes from June 6, 2007, there are 4 courses that have not been offered since June 2005; FP 9330, FP 9340, FP 9410, and FP 9520. FP 9330 was revised in December 2005 and assigned a new course number (FP 200), but the FP 9330 course is still listed on the College’s Core Outcomes Mapping list for FPT courses.

Figure 3-4 shows a list of FPT courses and the number of times they have been offered since winter term 2008, including a breakdown of traditional and DL offerings.

It should be noted that although some courses have not be listed in the College’s Credit Schedule in the past three years, they have been used with the Contract Credit component of the program.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Number Of Offerings</th>
<th>Number Traditional Offerings</th>
<th>Number DL Offerings</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP 101</td>
<td>Intro to Fire Protection</td>
<td>14</td>
<td>6</td>
<td>8</td>
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<tr>
<td>FP 111</td>
<td>Firefighting Skills I</td>
<td>12</td>
<td>12</td>
<td>N/A</td>
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<tr>
<td>FP 112</td>
<td>Firefighting Skills II</td>
<td>12</td>
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<tr>
<td>FP 113</td>
<td>Firefighting Skills III</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
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<tr>
<td>FP 121</td>
<td>Fire Science I (Fire Behavior and Combustion)</td>
<td>11</td>
<td>6</td>
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<tr>
<td>FP 122</td>
<td>Fundamentals of Fire Prevention</td>
<td>10</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>FP 123</td>
<td>Hazardous Materials</td>
<td>11</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>FP 131</td>
<td>Introduction to High Angle Rescue</td>
<td>2</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 132</td>
<td>Fire Apparatus, Pump Construction and Operation</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
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<tr>
<td>FP 133</td>
<td>Natural Cover Forest Firefighting</td>
<td>9</td>
<td>8</td>
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<tr>
<td>FP 141</td>
<td>Introduction to Water Rescue</td>
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<td>FP 151</td>
<td>Aircraft Crash and Rescue Basics</td>
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<td>N/A</td>
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<td>FP 152</td>
<td>Emergency Response to Terrorism</td>
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<tr>
<td>FP 161</td>
<td>Vehicle Extrication Basics</td>
<td>2</td>
<td>2</td>
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<tr>
<td>FP 200</td>
<td>Fire Service Hydraulics and Water Supply</td>
<td>6</td>
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<tr>
<td>FP 201</td>
<td>Emergency Service Rescue</td>
<td>8</td>
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<td>N/A</td>
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<tr>
<td>FP 202</td>
<td>Fixed Systems and Extinguishers</td>
<td>9</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>FP 203 A</td>
<td>Intro to Tactics and Strategies</td>
<td>9</td>
<td>6</td>
<td>3</td>
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<tr>
<td>FP 208</td>
<td>Emergency Operations Safety &amp; Survival</td>
<td>3</td>
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<tr>
<td>FP 210</td>
<td>Multicultural Strategies for Firefighters</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
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<tr>
<td>FP 211</td>
<td>Building Construction</td>
<td>9</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>FP 212</td>
<td>Fire Investigation</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>FP 213</td>
<td>Principles of Supervision</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>FP 214</td>
<td>Occupational Safety and Health for the Fire Service</td>
<td>6</td>
<td>6</td>
<td>N/A</td>
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<tr>
<td>FP 215</td>
<td>Urban Interface Firefighting</td>
<td>1</td>
<td>1</td>
<td>N/A</td>
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<tr>
<td>FP 231</td>
<td>Aircraft Crash Rescue Practices</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 232</td>
<td>Pump Construction and Hydraulics II</td>
<td>6</td>
<td>6</td>
<td>N/A</td>
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<tr>
<td>FP 233</td>
<td>Aerial Ladder Operations for Firefighters</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
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<tr>
<td>FP 240</td>
<td>Fire and Emergency Service Instructor I</td>
<td>4</td>
<td>4</td>
<td>N/A</td>
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<tr>
<td>FP 242</td>
<td>Flammable, Explosive, Toxic Materials</td>
<td>6</td>
<td>1</td>
<td>5</td>
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<tr>
<td>FP 243</td>
<td>Laws Affecting Firefighters</td>
<td>4</td>
<td>2</td>
<td>2</td>
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<tr>
<td>FP 250</td>
<td>Emergency Services Instructor II</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
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<tr>
<td>FP 252</td>
<td>High Angle Rope Rescue</td>
<td>1</td>
<td>1</td>
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<tr>
<td>FP 260</td>
<td>Emergency Services Instructor III</td>
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<td>0</td>
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Figure 3-4 (continued next page)
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Notes</th>
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<tbody>
<tr>
<td>FP 261</td>
<td>Water Rescue for Emergency Services</td>
<td>0</td>
<td>N/A</td>
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<tr>
<td>FP 285 A</td>
<td>Cooperative Education: Fire</td>
<td>28</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 285 B</td>
<td>Cooperative Education: Seminar</td>
<td>13*</td>
<td>N/A</td>
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<tr>
<td>FP 286</td>
<td>Public Sector Employment Workshop</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 293</td>
<td>Advanced Firefighter Tactics and Strategies</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 9010</td>
<td>Fire Management Practices</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 9020</td>
<td>Fire Department Budgets</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>FP 9030</td>
<td>Planning Fire Protection</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 9040</td>
<td>Managing Fire Personnel</td>
<td>0</td>
<td>N/A</td>
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<tr>
<td>FP 9050</td>
<td>Public Relations, Education and Information</td>
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<td>3</td>
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<tr>
<td>FP 9060</td>
<td>Fire Science II, Chemistry</td>
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<td>FP 9070</td>
<td>Major Emergency Tactics and Strategy</td>
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<tr>
<td>FP 9080</td>
<td>Fire Fighting Safety and Survival for Company Officers</td>
<td>0</td>
<td>N/A</td>
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<tr>
<td>FP 9095</td>
<td>Incident Command</td>
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<tr>
<td>FP 9110</td>
<td>Fire Inspection Practices</td>
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<tr>
<td>FP 9120</td>
<td>Fire Codes and Related Ordinances</td>
<td>6</td>
<td>4</td>
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<tr>
<td>FP 9130</td>
<td>Hazardous Materials Inspection</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 9140</td>
<td>Fire Officer I</td>
<td>5</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 9150</td>
<td>Fire Officer II</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>FP 9210</td>
<td>Arson Law, Evidence and Motives</td>
<td>1</td>
<td>N/A</td>
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<tr>
<td>FP 9250</td>
<td>Advanced Fire And Arson Investigation</td>
<td>1</td>
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<tr>
<td>FP 9330</td>
<td>Fire Service Hydraulics</td>
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<tr>
<td>FP 9340</td>
<td>Water Distribution Systems</td>
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<tr>
<td>FP 9410</td>
<td>Public Relations for the Fire Service</td>
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<tr>
<td>FP 9520</td>
<td>Advanced Wildland Fire Behavior</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Figure 3-4
SECTION 4

Needs of Students and Community
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4.1 **Student Demographics**

Based on data collected from the U.S. Census Bureau and PCC Office of Institutional Effectiveness (Figure 4-1), the demographics for the FPT program is only representative of the regional demographics in one statistical area, American Indian/Alaska Native, 1.2% regionally and 2.4% in the FPT program. The FPT program is near the regional average for Black/African American – 3.5% regionally vs. 2.0% for the FPT program. In all other statistical areas, the FPT program is well below the regional average with the exception of White – 78.1% regionally vs. 88.6% for the program. It should be noted, because of the small percentages in all statistical areas other than White, a small fluctuation in FPT program enrollment by any statistical group is likely to skew the results above or below the regional percentages for that group.

<table>
<thead>
<tr>
<th>Diversity Statistics</th>
<th>Metro Area¹ (Multnomah, Clackamas, Washington, &amp; Clark Counties)</th>
<th>PCC² All Students</th>
<th>PCC² Fire Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>2,082,318</td>
<td>47518</td>
<td>714</td>
</tr>
<tr>
<td>White</td>
<td>78.1%</td>
<td>73.8%</td>
<td>88.6%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>3.5%</td>
<td>5.9%</td>
<td>2.0%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>1.2%</td>
<td>1.6%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Asian &amp; Pacific Islander</td>
<td>6.6%</td>
<td>10.5%</td>
<td>3.2%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>10.6%</td>
<td>8.3%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>

*Figure 4-1*

Source:

2) U.S. Census Bureau, 2009
3) PCC Office of Institutional Effectiveness, 2008-2009

Based on gender data, the FPT program far exceeds national and state statistics for women in the fire service. Nationally and in the State of Oregon, females account for only 0.017% of career fire fighters. According to data from the PCC Office on Institutional Effectiveness, 6.9% of the FPT program is female (Figure 4-2). It should be noted that due to the limited number of females interested in pursuing a career fire fighting, these data can vary drastically from year to year. However, based on the fact that there are a limited number of females seeking career fire fighter positions, the FPT program is likely to continue to exceed national and state averages.

<table>
<thead>
<tr>
<th>Gender Statistics</th>
<th>National</th>
<th>Oregon</th>
<th>PCC-Fire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # of Fire Fighters</td>
<td>363,250¹</td>
<td>4,600¹</td>
<td>714² (head count)</td>
</tr>
<tr>
<td>Total # of Female Fire Fighters</td>
<td>6,140²</td>
<td>74²</td>
<td>49³ (head count)</td>
</tr>
<tr>
<td>Percentage of Female Fire Fighters</td>
<td>0.017</td>
<td>0.016</td>
<td>6.9¹</td>
</tr>
</tbody>
</table>

*Figure 4-2*

Source:

4.1(a) Effect on Instruction

Limited interaction with minority students and staff, leads to poor cultural sensitivity and understanding of diverse cultures. Bringing the program to Cascade Campus has increased the interaction by FPT students with the campus culture. In addition, it provides more interaction with diverse cultures than previously was experienced by students when the FPT program was located in Gresham. Instructors are well educated and have worked in diverse communities. Instructors share their experiences with students in the program during discussions in the classroom.

The need for a diverse workforce has long been an issue in the emergency services, especially fire departments. It has been a struggle to diversify and as the statistics reveal, the Fire Protection program mimics the employers. It is the programs responsibility to educate students in the aspect of a diverse population as many of the students have a pre-set belief system that may not comprehend the ramifications of not understanding other cultures, beliefs, genders issues, and other diversity issues. The program has added as an elective FP 210, Multicultural Strategies for Firefighters, and recommends SOC 232 Death and Dying: Culture and Issues and SOC 213 General Sociology: Diversity in the United States

4.1(b) Notable changes since the last Program Review

The move from Gresham to the urban center of Portland has improved access to minorities significantly. Comparison of 2007-2008 demographics to 2008-2009 shows very little change. There was a small, but significant, change from 90.1% “White Non-Hispanic” to 88.6 % “White Non-Hispanic” the following year. An attempt was made to retrieve earlier demographic reports for 2004-2005, 2005-2006 & 2006-2007. The report has not been received at the time of this review. Should the data become available it may show that there has been a steady overall increase in the percentage of “minority” students and a proportionate decrease in the percentage of “White Non-Hispanic” Race/Ethnicity distributions. Since the program was relocated to Cascade Campus in fall of 2004, comparison of this data will be far more informative.

Gender distribution shows a reduction in the percentage of female students in the FPT program between 2007-08 and 2008-09. The percentage of female students is directly affected by the difference of having three female students compared to only one in any given term. The number of female students could be increased with targeted recruiting and by support from the fire service in referring minority and female students to the College for career preparation and pre-employment training. The number of female students has fluctuated from 5%-10% and may not have been affected significantly by the move of the Program to Cascade Campus.

4.2 Enrollment Patterns

4.2(a) Current and Projected Demand

According to the United States Department of Labor (DOL), Bureau of Labor Statistics, Occupational Outlook Handbook, 2010-2011 edition, about 9 out of 10 fire fighters are employed by local governments, and keen competition for jobs is expected because this occupation attracts many qualified candidates.

**Employment**

In 2008, total paid employment in fire fighting occupations was about 365,600. Fire fighters held about 310,400 jobs, and first-line supervisors/managers of fire fighting and prevention workers held about 55,200. These employment figures include only paid career fire fighters—they do not cover volunteer fire fighters, who perform the same duties and may constitute the majority of fire fighters in a residential area. According to the U.S. Fire Administration, about 70 percent of fire companies were staffed entirely by volunteer fire fighters in 2007.
About 91 percent of fire fighting workers were employed by local governments. Some local and regional fire departments are being consolidated into countywide establishments to reduce administrative staffs, cut costs, and establish consistent training standards and work procedures. Some large cities have thousands of career fire fighters, while many small towns have only a few. Most of the fire fighters not employed by local governments worked in fire departments on Federal and State installations, including airports. Private fire fighting companies employ a small number of fire fighters (DOL Occupational Employment Outlook, 2010-2011).

In Oregon, total paid employment in fire fighting occupations was about 4660, including first-line supervisors, fire fighters, fire inspectors and investigators, and forest fire inspectors and prevention specialists. In the Portland, Vancouver, Beaverton, OR/WA Metropolitan Area, there were about 2630 paid fire fighting occupations. The Portland, Vancouver, Beaverton, OR/WA Metropolitan Area accounts for approximately 50% of all paid fire fighting occupations in Oregon. Of the 2630 paid fire fighting occupations in the Metropolitan Area, fire fighters account for approximately 1910 jobs. First-line supervisors, and fire inspectors and investigators account for approximately 720 jobs (DOL, Occupational Employment Statistics, Occupational Employment and Wages, May 2009).

**Job Outlook**

Although employment is expected to grow faster than the average for all jobs, candidates for these positions are expected to face keen competition because these positions are highly attractive and sought after.

**Employment change.** Employment of fire fighters is expected to grow by 19 percent over the 2008–18 decade, which is faster than the average for all occupations. Most job growth will stem from volunteer fire fighting positions being converted to paid positions. In recent years, it has become more difficult for volunteer fire departments to recruit and retain volunteers, perhaps because of the considerable amount of training and time commitment required. Furthermore, a trend toward more people living in and around cities has increased the demand for fire fighters. When areas develop and become more densely populated, emergencies and fires affect more buildings and more people and, therefore, require more fire fighters.

**Job prospects.** Prospective fire fighters are expected to face keen competition for available job openings. Many people are attracted to fire fighting because (1) it is challenging and provides the opportunity to perform an essential public service, (2) a high school education is usually sufficient for entry, and (3) a pension is usually guaranteed after 25 years of service. Consequently, the number of qualified applicants in most areas far exceeds the number of job openings, even though the written examination and physical requirements eliminate many applicants. This situation is expected to persist in coming years. Applicants with the best chances are those who are physically fit and score the highest on physical-conditioning and mechanical aptitude exams. Those who have completed some fire fighter education at a community college and have EMT or paramedic certification will have an additional advantage (DOL, Occupational Employment Outlook, 2010-2011).

Based on these statistics, PCC can expect enrollment to continue to increase at a steady rate over the next 5 years. The demand for fire program classes should continue to increase in both the pre-employment and professional development areas. This demand can be surmised from the following information.

According to the DOL, Occupational Employment Outlook, applicants for fire fighting jobs usually are required to have at least a high school diploma, but candidates with some postsecondary education are increasingly being preferred. In addition, most municipal jobs require passing written and physical tests. Once people are hired to be fire fighters, they all receive extensive training.
Most fire fighters have a high school diploma; however, the completion of community college courses or, in some cases, an associate’s degree, in fire science may improve an applicant's chances for a job. A number of colleges and universities offer courses leading to 2-year or 4-year degrees in fire engineering or fire science. In recent years, an increasing proportion of new fire fighters have had some education after high school.

As a rule, entry-level workers in large fire departments are trained for several weeks at the department’s training center or academy. These workers often seek to gain college credit for this training. PCC can expect to continue to see a demand for credit that recognizes this training.

In some cases, entry-level workers in small fire departments are required to be “certified” as a fire fighter prior to being employed. In these cases, the fire departments expect the workers to attain certification on their own prior to making application for the job. These workers often attain the training required to attain certification through the local community college or as a member of a volunteer fire department. PCC can expect to see an increase in demand for this type of training as the practice of requiring certification prior to employment becomes more common.

In addition to entry level fire fighter training, almost all departments require fire fighters to be certified as emergency medical technicians. Although most fire departments require the lowest level of certification, Emergency Medical Technician-Basic (EMT-Basic), larger departments in major metropolitan areas increasingly are requiring paramedic certification. Some departments include this training in the fire academy, whereas others prefer that recruits earn EMT certification on their own, prior to employment or they will give them up to 1 year to do it after attaining employment. Because of this practice, PCC should continue to maintain a close relationship between the emergency medical services program and the FPT program.

**Advancement.** Most experienced fire fighters continue studying to improve their job performance and prepare for promotion examinations. To progress to higher level positions, they acquire expertise in advanced firefighting equipment and techniques, building construction, emergency medical technology, writing, public speaking, management and budgeting procedures, and public relations. Opportunities for promotion depend upon the results of written examinations, as well as job performance, interviews, and seniority. Hands-on tests that simulate real-world job situations also are used by some fire departments.

Usually, fire fighters are first promoted to engineer, then lieutenant, captain, battalion chief, assistant chief, deputy chief, and, finally, chief. For promotion to positions higher than battalion chief, many fire departments now require a bachelor's degree, preferably in fire science, public administration, or a related field. An associate's degree is required for executive fire officer certification from the National Fire Academy (DOL, Occupational Employment Outlook, 2010-2011).

Over the next 5 years, PCC can expect to see a continued demand for professional development training and education course, as well as, seeking college credit for training and education taken outside the post-secondary education setting.

Based on these statistics, PCC can expect to see a continued increase in students seeking pre-employment training and education. In addition, PCC can expect to see a continued demand for professional development courses for currently employed fire fighters and first-line supervisors. [http://www.bls.gov/oco/ocos329.htm](http://www.bls.gov/oco/ocos329.htm)
4.2(b) Impact on the Program

Based on the expected 19 percent growth in employment of fire fighters over the next decade, which is faster than the average for all occupations (DOL, Employment Outlook, 2010-2011), PCC can anticipate a continued increase in enrollment for both pre-employment and professional development training and education. This anticipated growth will require the FPT program to courses to meet the demand. The increase in course offers will require more instructors (full-time and/or part-time) to instruct the classes, additional funding to support the classes, and additional casual and/or classified instructional assistants (lab assistants) to assist with instruction of the additional classes. In addition, PCC can expect an increase in requests for “credit for prior learning” through both contract credit and portfolio assessment. This increase will require additional staff time to manage and assess the awarding of credit.

In addition, the expected increase in students seeking training and education will place additional demands on the FPT program to provide student advisement. At this time, student advisement is provided by Michelle Butler, (Learning Skills Specialist, Perkins Advising), Cliff Morgan, (ES Advisor and Program Support, Emergency Services), and FPT faculty and staff. It should be noted that Michelle Butler is the primary advisor for the FPT program and Cliff Morgan is the primary advisor for the EMS program. Currently, both Michelle Butler and Cliff Morgan are functioning at maximum capacity. As a result, students often have to schedule appointments several days, if not weeks in advance. Based on the expected growth in students over the next five years, it can be expected that students will be required to wait longer for appointments, and as a result, could miss crucial dates and times, such as, for enrollment and graduation.

With the need to increase the number of course offerings, the FPT program will need more classroom and laboratory space. In addition, the program will need to develop more on-line/hybrid courses where applicable.

4.3 Strategies Used to Facilitate Access and Diversity

The first real strategy for facilitating access specifically for diversity of the program was to move the program from Gresham to Cascade Campus. This effort took 12 years and became a reality in 2004. Since then several activities have been used to increase the visibility of the program to minority students at Portland High Schools. Through participation with a task force in 2004 a new program was established with Benson HS that would provide a course for HS students to take that would look at Police, Fire, Dispatch, Emergency Management and Emergency Medical Services. The class is EM 101 and was developed by representatives from each program.

A Fire Cadet Program was attempted over a three year period that recruited students from Jefferson High School (JHS) and delivered an evening class for minority students interested in the fire service as a career. The Cadet Program started as a partnership between PCC, JHS and Portland Fire & Rescue (PF&R). Student numbers were low (4-6 students each night) and attendance was not strong. PF&R personnel were not familiar with the delivery of education and the use of different instructors did not facilitate cohesion of the group.

Self Enhancement Inc. has utilized the fire program for close to ten years to show students the possibility of working as a firefighter. These are both middle and high school age kids of diversity and some at risk. Over thirty students visit the FPT program each year and they are given an opportunity to do things that a fire fighter would have to do on the emergency scene. This has always been a positive experience for all.

College staff, routinely, brings high school students through the facility to get an overview of the FPT program requirements and to ask staff questions about the career.
A new position in the fire program is partially responsibly to reestablish a Cadet Program with Portland Public Schools. This program will need to be funded, supported and staffed to be successful. High school students participating will be required to come to campus twice a week as part of their afternoon class schedule, rather than once a week at night. To date, others priorities have delayed the effort to reestablish this program.

During spring term 2010, representatives of PCC FPT Program and Self Enhancement, Inc. (SEI) met to discuss philosophies and opportunities each school offers the student body of SEI. SEI would like PCC to play a larger role in exposing their students to different career possibilities that represent a more realistic goal for SEI students. The model for this would be in the fire cadet program utilized by the FPT program with JHS. Some of the anticipated roadblocks are the physical space to conduct the classroom portion, shortage of equipment, and securing instructors.

While we attempt to sort out the logistical portion, more attention will be paid to our current non-traditional workforce students. The program is investigating starting a focus/support group in cooperation with the Women’s Resource Center and the Black Student Union. The plan is to make sure that the program’s current non-traditional workforce students are successful in the educational setting and the work place by giving them support and insight on how to survive and flourish in a setting that is predominately white male. Along with supporting these students, these groups will also be a valuable tool in recruiting and maintaining future non-traditional workforce students.

### 4.4 Use of Feedback to Curriculum and/or Instructional Changes

Regional Training Associations, the Oregon Fire Instructors Association (OFIA), DPSST and the NFA have all contributed to, and had a significant impact on, the FPT degree. Through a close relationship with these industry leaders, feedback has been gathered leading to significant modifications to the program. These changes include working with Regional Fire Training Associations to increase access to course work in the field; participation with State wide task forces developing and adopting national standards and assessing and evaluating curriculum for delivery through the College; adoption of the NFA Fire & Emergency Services Higher Education (FESHE) nationally recognized core curriculum and the creation of courses to meet national initiatives intended to reduce firefighter line-of-duty-deaths (LODD) through education. Feedback from the FPT Advisory Committee has led to the current proposal to adopt two new courses, one that looks at strategies for working and delivering emergency services in a diverse environment and the other looks at ethical issues for firefighters.

In addition to feedback from the various organizations in the state and the FPT program advisory committee, student feedback is gathered through faculty and course critiques. Courses are evaluated. The textbook and curriculum are evaluated regularly as part of the instructor/course evaluation process. This information is used to determine the student’s perception of the quality of instruction and course material. The following is an analysis of student evaluations for four terms.
### Student Rating of Faculty, Courses, and Textbooks
#### Student Feedback Results

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Good</th>
<th>Average</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Rating: Fall 2009(^1)</td>
<td>82%</td>
<td>13%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Student Rating: Winter 2010(^2)</td>
<td>82%</td>
<td>11%</td>
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<td>3%</td>
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<tr>
<td>Student Rating: Spring 2010(^3)</td>
<td>91%</td>
<td>6%</td>
<td>3%</td>
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<tr>
<td>Student Rating: Fall 2010(^4)</td>
<td>84%</td>
<td>10%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Student Rating: Overall</strong></td>
<td><strong>84.75%</strong></td>
<td><strong>10.0%</strong></td>
<td><strong>4.0%</strong></td>
<td><strong>1.25%</strong></td>
</tr>
</tbody>
</table>

**Figure 4-3**

1) 180 students surveyed  
2) 165 students surveyed  
3) 45 students surveyed  
4) 79 students surveyed

Based on the data in Figure 4-3, it would appear the FPT program has competent faculty and the course curriculum meets the students’ needs. 94.75% indicated the faculty and course were good to excellent, while only 5.25% indicated they were average to poor.
SECTION 5

Faculty
5.1 Information on Faculty

5.1(1) Quantity and Quality of Faculty Needed to Meet Needs of Program

The FP faculty consists of primarily part time faculty who are currently working in the Fire Service field and are instructing classes that they hold special knowledge. The program believes that to keep it up-to-date and relevant, we need to utilize instructors who currently work in the field and deal with the subject matter of which they have firsthand knowledge.

In addition, the FPT program, currently, includes two full-time faculty, one full-time temporary academic professional, and 24 part-time faculty. The following is a list of their qualifications and experience:

**FULL-TIME – Faculty and Staff:**

**Doug Smith, Faculty Chair**  
BT Automotive Technology, AAS Fire Science  
30 years fire service experience  
22 years community college instructional experience  
NFPA Fire Service Instructor III certificate  
Numerous National Fire Academy, State of Oregon, and State of Washington fire service related certificates

**Edward Lindsey, Faculty and SAC Chair**  
MPA Public Administration, BS Speech Communication, AAS Fire Protection Technology  
35 years fire and rescue service experience  
22 years community college instructional experience  
NFPA Fire Service Instructor III  
Numerous National, State and Regional Certifications

**William Benjamin, Academic Professional**  
MS Industrial Safety, BS Fire Science  
40 years career, part-time, and volunteer fire service experience  
32 years community college instructional experience  
NFPA Fire Service Instructor IV certified  
Numerous National Fire Academy and State of Missouri fire service related certificates
**PART-TIME – Faculty:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Work Experience</th>
<th>Instructional Experience</th>
<th>Related Certificates/Certifications</th>
</tr>
</thead>
</table>
| Chris Baird: AAS      | 19 yrs          | 10 yrs                   | > Fire Fighter II  
> Fire Officer I  
> Haz. Mat. Tech.  
> Instructor I |
| Ryan Berg:            | 17 yrs          | 10 yrs                   | > Fire Fighter II  
> Instructor I |
| Steve Best: AAS & BS  | 25 yrs          | 18 yrs                   | > Fire Fighter III  
> Instructor III  
> HM Technician  
> Apparatus Operator  
> Safety Officer  
> Fire Officer IV  
> Oregon Paramedic |
| Ed Bonollo: AAS & BS  | 37 yrs          | 10 yrs                   | > IAAI-CFI  
> NFPA Fire Investigator  
> Instructor II  
> Fire Officer IV |
| Bryan Borrelli: AAS   | 7 yrs           | 5 yrs                    | > Fire Fighter II  
> Instructor I  
> Officer I  
> Driver Operator  
> Washington EMT-B |
| Fred Charlton:        | 16 yrs          | 10 yrs                   | > Instructor I  
> Fire Fighter I  
> Fire Officer I |
| Grant Coffey:         | 32 yrs          | 32 yrs                   | > Haz Mat Tech.  
> Fire Fighter II  
> Instructor II  
> Fire Officer III |
| Marc Crain:           | 35 yrs          | 25 yrs                   | > Instructor II  
> OEM/FEMA ICS Instr. Qual.  
> NWCG Ops Section Chief |
| Tom Crowder:          | 30 yrs          | 26 yrs                   | > Instructor III  
> Driver Operator  
> Pump Operator  
> Aerial Operator  
> Fire Officer II  
> Oregon Paramedic |
| Rob Dahl:             | 35 yrs          | 32 yrs                   | > Incident Safety Officer  
> Health and Safety Officer  
> Everyone Goes Home, NFFF |
| Doug Jones:           | 30 yrs          | 4 yrs                    | > Fire Fighter I  
> Instructor I |
| Dennis Katz: AAS & BS | 41 yrs          | 34 yrs                   | > Instructor III  
> ICS 400  
> Fire Fighter II |
| Todd McCabe:          | 24 yrs          | 3 yrs                    | > Fire Fighter II  
> Instructor II  
> Washington Paramedic |
| Jason McGowan:        | 25 yrs          | 5 yrs                    | > Instructor I  
> Fire Fighter I |
| Aaron Olson:          | 37 yrs          | 3 yrs                    | > Certified Law Enforcement Officer |
**PART-TIME -- Faculty: (continued)**

<table>
<thead>
<tr>
<th><strong>Dave Sauerbrey:</strong></th>
<th><strong>Shawn Parrish:</strong></th>
<th><strong>Don Schulte:</strong></th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
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<td>Instructional Experience: 12 yrs</td>
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<tr>
<td>Related Certificates/Certifications:</td>
<td>Related Certificates/Certifications:</td>
<td>Related Certificates/Certifications:</td>
</tr>
<tr>
<td>&gt; Fire Prevention Officer</td>
<td>&gt; Fire Fighter II</td>
<td>&gt; Instructor I</td>
</tr>
<tr>
<td>&gt; Inspector II</td>
<td>&gt; Instructor I</td>
<td>&gt; Fire Fighter II</td>
</tr>
<tr>
<td>&gt; Instructor III</td>
<td>&gt; Wildland Fire Fighter I</td>
<td>&gt; Rescue Technician</td>
</tr>
<tr>
<td>&gt; Haz Mat Technician</td>
<td></td>
<td>&gt; Apparatus Operator</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Brian Shelton:</strong></th>
<th><strong>Adam Troupe:</strong></th>
<th><strong>Jeff Welch: AAS</strong></th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Instructional Experience: 12 yrs</td>
<td>Instructional Experience: 4 yrs</td>
<td>Instructional Experience: 4 yrs</td>
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<tr>
<td>Related Certificates/Certifications:</td>
<td>Related Certificates/Certifications:</td>
<td>Related Certificates/Certifications:</td>
</tr>
<tr>
<td>&gt; Instructor I</td>
<td>&gt; Instructor I</td>
<td>&gt; Instructor I</td>
</tr>
<tr>
<td>&gt; Fire Fighter II</td>
<td>&gt; Fire Fighter II</td>
<td>&gt; Fire Fighter II</td>
</tr>
<tr>
<td>&gt; Airport Fire Fighter I</td>
<td>&gt; Airport Fire Fighter I</td>
<td>&gt; CFBT Instructor</td>
</tr>
<tr>
<td>&gt; Driver Operator</td>
<td>&gt; Driver Operator</td>
<td>&gt; Driver Operator</td>
</tr>
<tr>
<td>&gt; Airport Driver/Operator</td>
<td>&gt; Pump Operator</td>
<td>&gt; Oregon EMT-B</td>
</tr>
<tr>
<td>&gt; Oregon EMT-B</td>
<td>&gt; NIMS 200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; Oregon EMT-B</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Mick Wesener: AAS</strong></th>
<th><strong>Steve Wrightson: AAS, BA, &amp; MBA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Experience: 5.5 yrs</td>
<td>Work Experience: 35 yrs.</td>
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<tr>
<td>Instructional Experience: 3 yrs</td>
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<td>Related Certificates/Certifications:</td>
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<tr>
<td>&gt; Instructor I</td>
<td>&gt; Instructor II</td>
</tr>
<tr>
<td>&gt; Fire Fighter II</td>
<td>&gt; Executive Fire Officer - NFA</td>
</tr>
<tr>
<td>&gt; Rope Rescue Technician</td>
<td></td>
</tr>
<tr>
<td>&gt; CFBT Instructor</td>
<td></td>
</tr>
<tr>
<td>&gt; Oregon EMT-B</td>
<td></td>
</tr>
</tbody>
</table>

The following is a narrative describing the background of many of the part-time instructors:

**Ed Bonollo** is a lead fire investigator with Tualatin Valley Fire & Rescue and instructs the FP 212 *Fire Investigation* class. Ed has over 30 years of experience and has worked in the career in Oregon and Washington. Ed is a member of the local Alcohol Tobacco and Firearms task force that investigates major crimes involving arson and explosive devices. Ed’s class on Fire Death Investigation is an eye opener for all of his students.

**Dave Sauerbery** has been working for the VFD and FD5 in the Fire Marshalls office and instructs the FP 122 *Fundamentals of Fire Prevention* class. Dave is one of several instructors that actually taught classes at PCC’s SE Center in the late eighties. Dave is currently the Director of the Northwest Training Center located just off I-205 in Vancouver and has taught many classes outside of the region as a visiting instructor and regional facilities.

**Don Schulte** is a fire fighter and paramedic with Tualatin Valley Fire & Rescue and instructs the FP 201 *Emergency service Rescue* class. Don is assigned to the Special Rescue Station that provides emergency response to emergencies involving elevation (rope rescue), water rescue and dive rescue response, confined space, building collapse and trench rescues. Don is a member of an elite force of firefighters that risk their lives performing technical rescues.
Steve Wrightson is the Fire Chief at Clark County Fire District 3 (Hockinson, Washington) and former Fire Marshall in Clark County. Chief Wrightson instructs the FP 202 Fixed Systems & Extinguishers class. He is a graduate of the Fire Program and has taught for PCC for five years now. Chief Wrightson has over 35 years of experience in the field and is a graduate of the National Fire Academies Executive Fire Officer program. He has also completed his MBA.

Doug Jones works for Portland Fire & Rescue and is the Assistant Fire Marshal for the City of Portland. Doug instructs the FP 211 Building Construction for Firefighters class. Doug shares his years of professional experience and knowledge of fire inspection practices, building codes and the impact that fire has on construction materials and designs. Doug has taught for PCC for about five years now.

Fred Charlton is currently the Fire Marshal for Clackamas County Fire District 1. Fred is a graduate of the program and has gone on to finish a Bachelor of Science in Fire Service Administration at Eastern Oregon University and an MPA at Portland State University. Fred has taught for the College since 2004 and is recognized as a regional Instructor of Fire Fighter Safety and Survival.

Grant Coffey currently is the Chief of Hazardous Materials Training & Operations for Portland Fire & Rescue. Grant has taught for PCC for close to thirty five years. He has played key fire service leadership roles inside and outside of PF&R. Grant has specialized in Hazardous materials and is a regionally and nationally recognized instructor. He is directly involved with State and National Hazardous Material emergency response teams and is assigned directly to the Oregon State Fire Marshal’s Office as is a member of the Emergency Response Overhead Team.

Dennis Katz has been and instructor at PCC since 1992. Several years ago, Dennis retired from Tualatin Valley Fire & Rescue as a Chief Officer and has been more actively involved with the College since then. Dennis was a founding leader in the development and implementation of a HS Fire Cadet Program at the Sabin-Schellenberg Center in Clackamas County and coordinated dual credit through PCC for Fire Cadets. Dennis conducted the 2005 FP Program Review and is currently, once again, (temporarily) running the Fire Academy for PCC.

Tom Crowder is a well-known and respected Captain in Fire Training for Clackamas County Fire District 1. Tom’s influence and leadership in Fire Training is recognized at the Regional Level as President of the Northwest Association of Fire Trainers (NAFT) and as Vice President of the Oregon Fire Instructor Association. Tom has been involved with the PCC Fire Academy since 1995 as an evaluator and instructor. He currently teaches the Emergency Service Instructor Course and often assists with the Fire Academy.

Jason McGowen is a Battalion Chief for the City of Gresham Fire Department. Jason is a graduate of the PCC Fire Program. Jason has been teaching Fire Fighting Tactics and Strategy for PCC for five years now. He brings a broad perspective to the class that meets the need of metro area company officers from both large and small organizations. Jason is well recognized in the region and also teaches for regional training organizations.

Marc Crain recently retired as Chief of Training from Clackamas County Fire District 1. Marc has taught over the years at PCC since the mid 1990’s. Marc is regionally and nationally recognized for his work in the area of Urban Interface Fire Fighting. Marc has increased his involvement with the program since retirement and now teaches Wildland Firefighting classes each term. He is a certified Operations Section Chief and part of the State overhead team responsible for managing wildland fires in Oregon and he is resource member of National overhead teams.
**Rob Dahl** has over 35 years of work experience much of that time as a Chief Officer or Fire Chief. His instructional experience of 32 years includes the development and implementation of a Fire Program at Lower Columbia Community College and extensive teaching in both Oregon and Washington for regional training associations and conferences. Rob has taught for PCC since 2008 after he assisted in the curriculum development of the FP 214 Occupational Safety & Health. His knowledge of NFPA Health and Safety standards, his involvement with the National Fallen Firefighters Foundation and his expertise in delivery of the Everyone Goes Home program provides our PCC students with the best possible understanding of the dangers associated with a career in the fire service.

**Ryan Berg** has worked for Clark County Fire and Rescue (CCFR) for over twenty years. He has been involved as an instructor at PCC since the mid nineties. Ryan has been a reliable part-time faculty resource for the fire academy and has most recently been asked to redesign entry and exit procedures for FP 280A Cooperative Education. As a Captain at CCFR he oversaw the development of one of our earliest intern programs and since the Coop-Ed requirement was expanded in 2008, he has managed to establish work experience opportunities at over twenty Metro Area fire agencies for over forty students each term.

**Steve Best** has many years of experience at Gresham Fire & Emergency Services and has been a Captain involved with training for over 15 years. Steve has been the backbone of the PCC Fire Academy for many years as one of our primary lead instructors. Steve has demonstrated a deep sense of commitment and pride in the PCC Fire Academy and he has been a true mentor to many PCC students during their effort to become a firefighter. Steve’s approach to the hiring process and interviewing is well known by all of our Academy graduates and his door is always open to our students for follow up guidance during their career.

### 5.1(2) Faculty Turnover

#### 5.1(2)(a) Extent of Turnover

Faculty turnover has been very moderate. Within the last 3 years, we have seen Rob Hatton who was a fulltime faculty member, retire; and the loss of Pete Petersen due to medical issues. Our faculty has been very stable which has offered consistent delivery of instruction. Many of the instructors have shown interest and are will to deliver their courses on-line. This is indicative of their commitment to the college and the program.

Baby Boomers account for approximately 50% of FPT instructors which will translate into turnover due to retirement within the next few years. However, 4 members of the staff have come to the program following retirement from their fire department. Also, the program has added 4 part-time instructors that are in the early stages of their career, thus may be with the program for many years to come.

#### 5.1(2)(b) Anticipated Turnover

All current full-time faculty and the academic professional in the FPT program are nearing retirement. In addition, many of the part-time faculty are in the same position. Within the next five years, it is anticipated that most, if not all, full-time employees in the FPT program will retire. In addition, many of the part-time are likely to retire also. The FPT program should begin succession planning to ensure a smooth transition as these retirements begin to occur.
5.1(3) Part-time Faculty

5.1(3)(a) Extent of Reliance on Part-time Faculty

The following is an analysis, by term, of the number of credits taught by part-time and by full-time faculty. The data are broken down to include the percentage of credits taught by full-time and part-time faculty. The analysis covers data from winter 2008 through fall 2010.

**Credits Taught By Full-Time and Part-time Faculty**

<table>
<thead>
<tr>
<th>SUMMARY – 2008 through 2010</th>
<th>Credits:</th>
<th>Percentage:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>813</td>
<td></td>
</tr>
<tr>
<td>Full-time Faculty</td>
<td>375</td>
<td>46.1</td>
</tr>
<tr>
<td>Part-time Faculty</td>
<td>438</td>
<td>53.9</td>
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<table>
<thead>
<tr>
<th>Winter 2010</th>
<th>Spring 2010</th>
<th>Summer 2010</th>
<th>Fall 2010</th>
<th>Totals</th>
</tr>
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<tbody>
<tr>
<td>70</td>
<td>84</td>
<td>43</td>
<td>76</td>
<td>273</td>
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<td>40</td>
<td>47</td>
<td>15</td>
<td>37</td>
<td>139</td>
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<td>42.9</td>
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<table>
<thead>
<tr>
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<th>Summer 2009</th>
<th>Fall 2009</th>
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<tbody>
<tr>
<td>75</td>
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<table>
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<tr>
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<th>Summer 2008</th>
<th>Fall 2008</th>
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</tr>
<tr>
<td>63.4</td>
<td>55.0</td>
<td>62.2</td>
<td>53.9</td>
<td>57.9</td>
</tr>
</tbody>
</table>

**Figure 5-1**

Based on the data (Figure 5-1), on average for the last three calendar years (12 academic terms), the FPT program has relied on part-time faculty (AF) to instruct 53.9% of the credits offered. Full-time faculty (FT) have instructed 46.1%. If the data from the summer terms are disregarded, the FT have consistently instructed slightly less than 50% of the credits each term except for fall 2010 when 51.3% were instructed by FT. The percentage of classes taught by full-time versus part-time is within the accepted range for PCC.

It should be noted that summer terms have consistently had the widest discrepancy between credits taught by FT and AF. The most likely explanation for this is the fact that the two full-time faculty are on 9 month contracts, thus the load they have carried in the summer has varied. This variance could be solved if one of the FT were placed on a 12 month contract.
5.1(3)(b)  Comparison of Education and Experience with Full-Time Faculty

As can be seen in 5.1(1), both the full-time and part-time faculty have extensive experience in the field and in instruction. The experience ranges from 5 years to more than 35 years. The instructional experience ranges from 3 years to over 30 years. The only noticeable difference between the full-time faculty and the part-time faculty is in formal education. All full-time faculty hold Master Degrees, whereas part-time faculty range from no formal post-secondary degree to masters degrees. This difference will not affect the quality of education and training the students receive because all faculty hold specialty certifications in the areas they teach. For example, all faculty are certified fire service instructors and certified fire fighters.

5.1(4)  Faculty Composition

The makeup of the program’s faculty is consistent with the diversity of the industry in the Portland/Vancouver metro statistical area. Unfortunately, this does not reflect the diversity of the community served. This is not atypical of the fire service in the United States. Mechanisms have been in place and tested for the last 25 years to encourage diversity, but given the length of a typical career the change has been slow in occurring.

Currently, the program faculty consists of all males, of which white males are the predominant number. Currently, there are no female faculty in the program, even though there female fire fighters in the metro area. It has proven difficult to recruit females into the instructional field.

A concerted effort should be undertaken to recruit a more diverse instructor base for the FPT program.

5.2  Changes to Instructor Qualifications and Reason for Changes

Current Instructor qualifications:  [http://www.pcc.edu/resources/academic/instructor-qualifications.pdf](http://www.pcc.edu/resources/academic/instructor-qualifications.pdf)

- Required: AAS Degree in Fire Protection Technology
- EMT Basic
- Emergency Service Instructor III level or equiv.
- 5 years fire service experience
- Preferred: BS Fire Administration
- years as a company officer
- 1 year instructing at a Community College in Fire or EMS

Currently, there is only one set of criteria for instructor qualifications, regardless of the setting and the person’s employment status, e.g., full-time or part-time. However, these criteria do not make a distinction in qualifications required to perform duties, such as those necessary to perform in the capacity of a full-time faculty member, as compared to those only required to instruct classes. PCC and the FPT program should consider the possibility of having separate and distinct qualifications for full-time and part-time faculty. Having separate and distinct qualifications would provide recognition for the difference between performing full-time responsibilities in the program and those required to simply instruct and manage a class or classes on a part-time basis.

In addition to the need for distinctions between full-time and part-time faculty, distinct instructor qualifications should be considered based on the setting in which the instruction is delivered. Within the FPT program, there appears to be 3 separate and distinct instructional settings in which instruction is delivered. The three instructional settings are as follows:
1. Instructing credit courses as the “instructor of record”
2. Instructing a portion of a credit course, but not the “instructor of record”
3. Instructing Off-site Sanctioned Occupational Training (OSOT) and not a PCC “approved” instructor

The following is an explanation of each, including rationale for the need to have distinct instructor qualifications for each.

- **Setting #1 – Instructor of record:** This is the “traditional” setting utilized to instruct courses with CRNs assigned through the normal planning process and then listed in the PCC Credit Schedule for the upcoming term. In this setting, the instructor’s name appears in the Credit Schedule next to the CRN. Both full-time and part-time faculty are assigned to instructor in this setting. **NOTE:** see comment above regarding instructor qualifications.

- **Setting #2 – Not the instructor of record:** This occurs primarily in the FP 111 and FP 112 courses, but does occur occasionally in other FPT courses. In FP 111 and FP 112, there is an “instructor of record” for the course. The instructor’s name is listed in the Credit Schedule along with the CRN for both sections of the course (two sections of FP 111 are offered each fall and spring and two sections of FP 112 are offered each winter and summer). The “instructor of record” is responsible for setting the class schedule, maintaining grades, writing tests, identifying “subject matter instructors” for each class period, identifying lab techs for class periods where they are required, working with the students on course issues, and other course management functions. The “instructor of record” helps the “subject matter instructor” instruct on days when more than one instructor is required. This situation happens when the subject being instructed poses beyond ordinary safety issues or when multiple topics will be taught simultaneously. To help understand this, the following is an overview of how FP 111 and FP 112 are delivered.

FP 111 and FP 112 are courses that teach students basic firefighting knowledge and psychomotor skills. The competencies are taught in the same format as they would be taught in a fire department fire academy. The course content includes topics such as carrying and raising ladder, operating power equipment, and fighting “live” fire. The instruction of the knowledge portion of the course is provided by an instructor other than the “instructor of record.” The instruction of the psychomotor skills portion of the course is provided through small groups. Students are divided into small groups for safety purposes and to develop competency. Note: the NFPA recommends in NFPA 1403, *Standard for Live Fire Training*, when conducting live fire training that an instructor to student ratio of 1 to 5 be used; in addition, there must be an instructor in-charge, safety officer, and fuel control officer.

When the students are divided into groups, the instructor for the knowledge portion and the assigned lab techs are each assigned a psychomotor skill to “coach” the students through.

It could be argued from a qualifications perspective, there is little difference between the qualifications required of the subject matter instructor and the lab techs coaching psychomotor skills. This is because coaching small group psychomotor skills requires more than “lab tech” abilities.

It could also be argued, from a qualifications perspective, the subject matter instructor does not need to possess the qualifications required of an “instructor of record,” e.g., the subject matter instructor is only responsible for managing a class period and instructing the subject scheduled. The subject matter instructor does not record grades, develop the course syllabi & schedule, arrange for lab tech support, or work with outside agencies to reserve facilities.
NFPA 1041: Standard for Fire Service Instructor Professional Qualifications, 2007 Edition could serve as a model for instructor roles and responsibilities as they relate to the FPT program and the instruction of FP 111 & FP 112. The following is an illustration:

Fire Service Instructor – I (FSI-I): According to NFPA 1041, an FSI-I is responsible for managing basic instructional resources, including assembling course materials for a specific topic, reviewing instructional material for the specific topic, adapting the material to meet student needs, organizing the classroom, lab, and/or outside learning environment, presenting the topic from a prepared lesson plan, operate audiovisual equipment, and administer tests.

Fire Service Instructor – II (FSI-II): According to NFPA 1041, an FSI-II is responsible for managing instructional resources, staff, facilities, and records & reports, scheduling instructional sessions, identifying budget needs, acquiring instructional resources, evaluate instructors, develop/modify lesson plans, supervise other instructors and students during training, develop student test instruments, and analyze test results.

Fire Service Instructor – III (FSI-III): According to NFPA 1041, an FSI-III is responsible for administration of agency policies and procedures for the management of instructional resources, develop recommendations for policies to support training program, select instructional staff based on qualifications, instructional requirements, and agency policies and procedures, write purchasing specifications for equipment purchase and maintenance, conduct course/program needs analysis, develop programs or curricula, write program and course goals, write course objectives, and construct course outlines.

Based on these roles and responsibilities, it would appear there are similarities between the NFPA 1041 levels of Fire Service Instructor and instructors in the FPT program. For example, the instructor teach specific subject matter in FP 111 & FP 112 is similar to an FSI-I; the “instructor of record” for a course is similar to an FSI-II, and full-time faculty and staff perform similarly to an FSI-III.

The following instructor qualifications have been proposed and are in the approval process, but further discussion should take place regarding the various categories of personnel utilized in the FPT program. When considering instructor qualifications, we must work within the constraints of the Contract and PCC policies and procedures, but with open communication a solution is possible.

Instructor Qualification currently in the approval process.
- AAS Degree in Fire Protection Technology
- NFPA Fire Service Instructor II or equivalent
- 5 years of fire service experience.
  Or
- Fire Fighter II certification or equivalent
- Emergency Service Instructor I or equivalent
- Driver/Pumper/Operator certification or equivalent
- 5 years recent experience as a fire fighter with emergency response experience
  Or
- Demonstrated knowledge or expertise in the subject matter assigned within FP 111 and FP112.
- Certifications in subject matter from organizations such as: DPSST, NFA, IFSAC, ASTM, NWCG, etc.

Preferred Qualification.
- BS in Fire Administration
- Years as a company officer
- 1 year instructing at a community college in fire or EMS.
- NFPA Fire Service Instructor III or equivalent
Instructors must be current in their field, either through employment, volunteer work or professional organizations.

**Reasons for proposed changes.**

EMT Basic has been dropped for instructors because the 5 years of field experience would include EMT-B. Also, removing EMT-B would allow retirees and other valuable individuals to be available.

The options of “Demonstrated knowledge or expertise in the subject matter” permits the program to utilize individual who may have expertise in a specific subject matter.

The phase “or equivalent” has been added after: Emergency Instructor III, Emergency Instructor I, Fire Fighter II certification, and Driver/Pumper/Operator certification to give the SAC the ability to considered other like certifications.

Demonstrated knowledge or expertise would be supported by certifications or certificates in the subject matter from DPSST, NFA, NFPA, IFSAC, National Wildfire Coordinating Group (NWCG), American Society for Testing and Materials (ASTM), and similar organizations.

### 5.3 Professional Development

#### 5.3(a) Professional Development Activities

- Doug and Ed attended the Fire & Emergency Service Higher Education (FESHE) Conference June 2010, Ed has attended most years prior.
- Bill attends the IFSAC Annual Conference and has attended for many years and been active as a board member.
- Bill, Ed and Shawn attended multiple courses in live fire instructor training.
- Ed attended 2010 OFIA Conference (and most previous years)
- Ed Chairs Oregon Fire & Emergency Service Higher Education Association
- Ed completed Oregon EMT Basic Recertification 2010
- Dennis Katz has attended the Fire Department Instructors Conference several times over the last five years.
- Marc Crain and Shawn Parrish attended the 2009 National Wildland and Urban Interface Fire Conference

#### 5.3(b) Instructional and/or Curriculum Changes as a Result of Professional Development Activities

- Adoption of FESHE courses required revision of courses and the degree.
- Accreditation process initiated 2008 expected completion 2012
- FP 111 Fire Academy class modified to incorporate updated live fire training guidelines, policies and procedures.
SECTION 6

Facilities and Support
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6.1 Impact of Facilities on Student Success

6.1(a) Classroom Space

The nature of emergency services work requires people in the field to have a wide spectrum of knowledge. This is necessary so they can tap into that knowledge base rapidly when presented with the unique situations that cause citizens to call 911.

Offering proper learning spaces for students in the program is unique because many of the outcomes are associated with demonstrated manipulative skills therefore it becomes critical to have a learning space for the didactic portion which is where students get the needed pre-requisite knowledge before manipulative skills can be learned. Convenient access to a lab space where the demonstrated skills can be learned and practiced is a must. Most of the program’s courses are presented in room 106 of the PSEB that has direct access to the apparatus bay and equipment storage area. This allows the instructors the ability to move between didactic and manipulative skills with ease.

The FPT program offers on a yearly average 32% of our classes on Fridays, Saturdays, and Sundays. Along with the weekend offering the yearly average on line offered classes is at 25%. This methodology allows the program to present more course offerings during the term so that students may move through the curriculum more efficiently. The Willow Creek facility will be utilized in the near future.

Due to the nature of our training activity, using fire engines to support our courses, facility space occupation is large. Well equipped fire engines are the pillars of our program to ensure students are exposed to the equipment that is used in the field.

The skills students are exposed to six live fires and the associated hostile environment. To ensure the safety of our students, we are required by OR-OSHA to equip them with personal protective equipment that meets NFPA 1851: Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting, and NFPA 1852: Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA). Our PPE is comparable to that which is used in the field.

The program occupies approximately 3300 square feet of the PSEB not including faculty office space. Occasionally the fire engine storage space is used by other emergency programs for lab skills activities.

Our program does have the portability and necessity of conducting training outside of the building and off-campus at industry specific sites.

A stall in securing a simulation program for the curriculum, coupled with the across the board enrollment increase, has lead to usage at the Public Safety and Education Building. The campus’ shortage of space has resulted in the loss of room 107 as a simulation lab and a back up classroom. Coordination is needed between programs that are currently using room 107 and programs that would benefit from a computer lab.

For the students to take what is presented seriously, we must have available respectable resources. Having equipment that is out dated and substandard casts the same shadow over the program. For our students to succeed they must be more than exposed to the latest equipment, they must be familiar with it.
6.1(b) Computers/Technology

The FPT Advisory Committee has indicated that they need candidates that have computer skills that are relevant to the work place. Data entry, record keeping, and fire department related soft and hardware are more prevalent in the emergency services today than ever before and there is no sign of slowing down. PCC has the facility equipped with computers that have fire department software however because of a lack of classroom space at Cascade Campus. The computer lab in the PSEB is dominated by non-emergency service courses that are not utilizing computers. Computer simulation labs are starting to make their way into fire department training facilities. Such labs are being used to instruct students in tactics and strategies of emergency management, fire department apparatus driving and pump operation, human resource management, and customer service scenarios.

A long sought after simulation program for emergency incidents was purchased from Action Training in 2008. Unfortunately, the simulation program could not be supported by the learning platform at PCC in the classrooms. An attempt to understand this issue took an enormous amount of time which eventually led to requesting the purchase of a lap top computer to use as a support vehicle for the simulator program. While this was a major reduction in the initial vision of a FPT simulation lab, it was a start. Other obstacles have been encountered and further action on this issue has been shelved with no concrete plan for future activity.

The FPT Advisory Committee has also stated that the program should do entry level testing for the area’s fire departments. The current trend in entry level testing is computer based activities that involve a board range of subject matter such as mechanical aptitude, ethics, situational scenarios, and comprehension skills.

6.1(c) Program Library/Media

The FPT program maintains a reference library in the hallway of the PSEB building outside room 125 for use by students and faculty. The library contains approximately 175 reference books and 50 visual media (DVDs/video tapes/35 mm slides). The library contains a number of reference books that are current. However, the visual media is becoming outdated. Some of the video tapes and 35 mm slide programs are no longer relevant and the ones that are still relevant should be converted to digital format.

The needs of the instructors for presentation support material is usually obtained when requested and in a timely manner. This keeps the program in pace with changes in the industry. It has been experienced lately that the publishers are producing course support material such as Power Point presentation and quizzes that are in much need of modifications and corrections. This requires the instructors to spend more time in class preparation.

6.1(d) Laboratory Space

The FPT program has limited laboratory space, and the space is not well suited for the type of demonstrations and practice required.

The FPT program has a large need for instructional space outside of traditional classrooms to provide students with the required instruction of psychomotor skills course outcomes. There are various lines of thought when it comes to considering how to provide adequate learning space to meet the required psychomotor skills outcomes. Currently, the program uses facilities in the PSEB and the parking lot in front of the building. In addition, the program rents metro area fire department training facilities to instruct the psychomotor outcomes that cannot be taught on Cascade Campus. This necessitates the transportation of equipment and students to these remote sites which adds a financial impact. These remote sites include TVF&R regional training facility in Sherwood; CCFD3 in Hockinson, Washington; and CCFD1 training facility in Clackamas, Oregon.
Each term the rental of these off-site facilities results in predictable expenses including the transportation of students. For example, during the fall 2009 term through the summer 2010 term, the FPT program spent $4,659.07 to rent vehicles for the transportation of students. The program spent an estimated $2,000.00 on fuel purchases for vehicles to travel to the off-site locations. In addition, this high usage of vehicles resulted in two engines breaking down on the highway and needing to be towed. One of those incidents included a “blown” motor and required the purchase of a vehicle ($20,000.00) to replace it.

At some point the FPT program should discuss, with PCC, the possibility of building a regional fire training facility that is property of the college. This would be the ideal situation. However, this will be many years away and until then, acceptable alternatives should be discussed.

Our current pedagogy is working even though it creates a number of logistics to deal with. It may also appear to be a financial drain, but it probably is more cost effective.

It is strongly recommended that we look at all aspects of the program to determine cost efficient methods for providing laboratory space.

6.1(e) Equipment

The needs of the program’s manipulative skill based courses require that there is industry based equipment available to properly prepare the students to meet the degree outcomes. Due to the nature of our training activity, using fire engines to support our courses, facility space occupation is large. Well equipped fire engines are the pillars of our program to ensure students are exposed to the equipment that is used in the field. The FPT program has three fire engines and one Type 6 wildland fire fighting engine (brush rig). In addition, the program has all the equipment necessary to instruct basic fire fighter and rescue training.

To meet all the qualifications identified in NFPA 1001, students must control several live fires, including car fires, flammable liquid fires, flammable gas fires, and interior fires below grade, at grade, and above grade levels. To ensure the safety of our students we equip them with personal protective clothing that meets NFPA 1851 and NFPA 1852.

For the students to take what is presented seriously, we must have available respectable resources. Having equipment that is out dated and substandard casts a dim shadow over the program. For our students to succeed they must be more than exposed to the latest equipment, they must be familiar with it.

To support the program’s pedagogy, traveling to local fire department training facilities to learn psychomotor skill outcomes has necessitated the use of passenger vans to transport students to these sites. Passenger vans are rented approximately, 10 to 15 times per term can be expected. This may seem expensive, but comparing it to the larger picture, the cost is out shadowed by the benefits. This includes better control over when students arrive and depart the remote site; and more efficient transport of students and equipment, thereby reducing the carbon foot print.

When the program first moved into the PSEB, the Oregon State Motor pool was located on Swan Island which gave the program access to low cost passenger van rental. The motor pool was closed in June 2009 and has since moved to Salem. As a result, the program and College should consider acquiring two 15 passenger vans for the FPT program and/or Cascade Campus.

In addition, the program lacks equipment to enhance the instruction of courses such as fixed systems and hazardous materials. The acquisition of equipment for these types of course would enhance student learning.
6.2 Student Use of PCC Library and/or Outside-The-Classroom Information Resources

The library at Cascade has been building a current and relevant inventory of books, periodicals, and web information locations for our student to access. A pilot program has been started to acquire instructor desk copies of the text books used in their classes so that those books can be held on reserve at the library for student use.

The Cascade Library staff regularly asks the program to identify learning resources that would be of value to our students and faculty. One such resource is the subscription to the NFPA’s Codes and Standards on-line. This resource is used regularly by faculty to revise and develop classes and keep our program current with the industry. Students are also able to access the NFPA Codes and Standards on-line for research and reference.

6.3 Instructional Support

6.3(a) Clerical

The ESD has very devoted and talented instructional administrative assistants that offer a lot of support to for each program. Due to the complexity and size of the FPT program, meeting the needs of outside agencies such as DPSST and IFSAC further adds to the demands of this position.

Clerical support utilizing Instructional Administrative Assistants has been identified for the FPT program however the reality has been much less than what is actually needed. There has been difficulty in maintaining a consistent presence in this position which has effectively reduced support. Much of the clerical activity must be handled by the faculty and academic professional.

*Donna Fielding, Instructional Administrative Assistant – III:* Donna provides support for the program by handling all personnel matters. For example, she tracks payroll, ensures instructor and lab techs have completed all required of employees at PCC, and manages FPT department personnel files.

*Sherry Hanchett, Instructional Administrative Assistant – II:* Sherry provides support for the program by handling all budget matters, student records, and office assistance for faculty and staff. For example, she tracks the budget, manages the financial aspect of acquisition and maintenance of equipment, and keeps student records straight.

*Shanti McCarter, Instructional Administrative Assistant – I.* (¾ time employee): Shanti provides support for the program by greeting and directing students to the proper person and assists with managing student records.
6.3(b)  Technical

Instructional Support Services (ISS) provide the classroom with the technology that is supported on a college wide basis. ISS response to issues that arise concerning technology has been very responsive. Support from ISS for the program’s distance learning classes has also been very strong and much appreciated.

In addition to technical support provided by ISS, The FPT program has two, ¾ time, Instructional Support Technicians to support the program.

*Bryan Borrelli, Instructional Support Technician – II, (¾ time employee):* Bryan provides support by maintaining all program inventories. For example, he maintains the SCBA, personal protective clothing, ensures all mechanical equipment is maintained and serviced, and works with students during lab and class time. In addition, he is the point of contact for outside vendors. He is responsible for all fire and EMS vehicles, including fueling, maintenance, and scheduled repairs.

*Shawn Parrish, Instructional Support Technician – I, (¾ time employee):* Shawn provides support by assisting with preparation for classes and working with students during lab and class time. He is responsible for all fire and EMS vehicles, including fueling and basic maintenance.

6.3(c)  Administrative

*Larry Clausen, Division Dean, Allied Health, Emergency, and Legal Services:* Dean Clausen oversees 10 programs in the Division including the FPT program. Dean Clausen meets with the FPT program chair every two weeks for updates and reports pertaining to the program.

*Kal Robertson, Director, Emergency Services Department:* Director Robertson oversees three programs in the department, including the Fire Protection Technology program. Director Robertson meets with the FPT program chair weekly on issue pertaining to the program. She meets monthly with the ESD staff for program updates and to ensure communications between the three program.

*Doug Smith, Department Chair, Fire Protection Technology:* Doug is the contact point between administration and the faculty and staff. Doug is responsible for scheduling FPT classes, determining faculty assignments, and creating and/or approving program policies and procedures. He serves as the contact between the college and the program.

6.3(d)  Tutoring

Tutoring is provided at various levels with the college. It is available from within the program for program specific assistance; it is available on-campus for students taking general education courses; and it is available college wide through an on-line service. The following is a description of each.

*Fire Program Tutoring:* The FPT program provides free skills tutoring to students in the program needing assistance with learning/improving manipulative skills. Lab techs are available Monday through Thursday, from 0800 to 1800, when classes are not in the lab area to assist students with manipulative skills. Lab techs make equipment available for students and provide guidance to assist them in learning manipulative skills.
Cascade Campus Tutoring: The Cascade Campus Learning Center offers free, drop-in tutoring services to currently registered PCC students with PCC–related coursework. The Cascade Learning Center is open:

Mondays through Thursdays:
8am to 6pm

Fridays:
8am to 2pm

Saturday:
10am to 2pm

http://www.pcc.edu/resources/tutoring/cascade/

College Wide Tutoring: PCC provides extensive tutoring services, including a state-of-the-art on-line system called eTutoring. According to the PCC web site, “at PCC, tutoring is designed to give you individualized attention to succeed in your courses and beyond” http://www.pcc.edu/resources/tutoring/. Tutors will connect with you where you are and help you make your way to the goal of academic success.

The website includes tips for being a better student http://www.pcc.edu/resources/tutoring/tips.html. In addition, the website includes information referred to as the College Success Track. The College Success Track has information about resources and services PCC offers to help students be successful in college. It also has some basic information and tips on college success http://www.pcc.edu/resources/first-term/eo2_0_CollegeSuccess.html.

On-Line Tutoring: PCC is partnering with the Northwest eTutoring Consortium to provide online tutoring assistance to students. All currently enrolled for-credit PCC students will have access to eTutoring’s free online professional tutoring services in the following areas:

- Accounting
- Anatomy & Physiology
- Biology
- Chemistry
- Math (Developmental through Calculus)
- Medical Coding
- MS Office 2007
- Physics
- Spanish
- Statistics
- Web Development (xHTML, CSS, and Adobe Dreamweaver)
- Writing

https://www.etutoring.org/login.cfm?institutionid=229&returnPage=
6.4 Student Services

6.4(a) Advising

*Full-time Faculty (Doug Smith & Ed Lindsey):* Full-time faculty members carry a significant role in advising students. This is because, approximately, 50% of the 765 students enrolled in the FPT program are career or volunteer fire fighters and come to the college with work experience and fire service provided training and education. As a result, full-time faculty play a significant role in reviewing this previous work experience and fire service provided training and education. In addition, most students seeking the AAS degree will meet with full-time faculty about once a year and prior to graduation, when modifications and substitutions are requested. Although there are no data to support this, it is thought that the majority of students enrolled in the FPT program take a minimum of three years to complete the program. Because of this, advising not only will take place with an individual student for more than three years, it is likely to be needed over a range of 5 to 15 years.

*Michelle Butler, Learning Skills Specialist / Perkins Advisor:* Michelle Butler is a Learning Skills Specialist for Perkins Advising for the ESD. She is the primary non-faculty advisor for the FPT program. New Students and transfer students are strongly urged to make an appointment with She to get an academic plan together and projected out for two years. In addition, the FPT program uses FP 101 as the gateway class for the FPT program. Michelle meets during one portion of the class to provide an explanation of PCC’s advising services. Student success is greatly increased when they are advised by professionals who are extremely familiar with the particular program.

*Cliff Morgan, ES Advisor and Program Support:* Cliff provides basic advising for FPT program. Cliff focuses primarily on the EMS program. However, because all FPT students are required to take EMT-Basic classes for completion of the AAS degree, Cliff does provide advice.

*Student Training, Advising, Registration, and Troubleshooting (START) Lab:* The START lab is a one-stop service that allows students to take care of all of their needs in one location, including advising. Orientation, initial advising, applying for financial aid, and registering for classes are all provided under the auspices of the START Lab.

6.4(b) Office for Students with Disabilities

The mission of Disability Services (DS) at PCC is to provide in-class and campus access services to students. These services are designed to promote student independence and equal access to classroom and college-related activities. DS meets this goal by providing academic accommodations and auxiliary aids as required by Federal and State law, and in accordance with college policies and procedures.

Due to the unique responsibilities involved in emergency services, physical disabilities may preclude students from successfully completing the program and/or becoming employed in the field. However, there are a number of learning disabilities that, when managed properly, will not preclude students from becoming successful in the FPT program or in seeking employment. DS can assist students with these learning disabilities. Recently, the program has started to see more students who have English as second language. PCC has a number of services that can assist these students, including DS.
6.4(c) **Other Student Services**

- The Cascade Career Services Center in the Student Services Building supports the program’s students and graduates in resume writing, application reviews, interviewing strategies, learning the on-line job posting system, cooperative education, and internships. DeAnne Hardy is the student employment and cooperative education specialist whose responsibilities include the FPT program. She regularly visits the classroom to provide assistance in career services.

- The Associated Students of Portland Community College (ASPCC) Cascade Campus offers students many opportunities to enhance their college experience. The ASPCC supports the individual student and clubs on campus by organizing and hosting events on campus such as the $1 BBQs, the book exchange (first week of every term at Student Center, room 03), staff the student lounge, design student planners, register students to vote and provide resources such as childcare grants and peer learning grants. They also serve as the link between students and PCC’s faculty and staff. Under the auspices of the ASPCC, a Student Fire Fighters Association (SFFA) was established in about 1993. The SFFA has been a resource to students for extracurricular activities and program involvement. Support of the SFFA has been a responsibility of the FPT faculty and, as such, requires faculty to work outside of the classroom with students facilitating public service activities and volunteer opportunities. FPT students working through the SFFA have provided support for numerous community activities, including support for SEI visits and public education activities for local grade schools. All SFFA activities require direct involvement of FPT faculty.

6.5 **Course Offerings**

6.5(a) **Scheduling Patterns**

The current philosophy of course scheduling is based on several criteria:

- Needs of the industry
- Needs of students to balance course work with work and family
- Needs of the student in successfully and efficiently proceeding though the program
- Needs of students who live out of district
- The availability of faculty and working with their schedule (many instructors are currently working in the field)
- Availability of classroom space, associated lab space and equipment

The FPT program’s student body is made up of primarily two types of students.

- The first type of student is referred to as the “traditional” student. This type of student enters the program with little or no experience in the emergency services field. Many of these students have recently graduated from high school or are just out of the military. These students have the desire to attend classes presented during typical hours and days. Most are full-time students with the intent on graduating within three years. Some of these students are planning on continuing their education in the paramedic program.

- The second type is the one who is currently employed in the field and are seeking post secondary education to enhance their status within their department. This is generally done for promotional reasons. Some of these students started out as traditional students, but were hired part way through their education and stopped attending college to concentrate on their employment needs.
To accommodate the criteria and the types of students, the program offers classes in a variety of times, duration, and delivery methods. On a four term average:

- 36% of the classes are offered during the day, Monday through Friday
- 25% of the classes are offered on the weekends which includes all day Friday classes
- 13% of the classes are offered during the evenings though out the week
- 26% of the classes are offered through Distance Learning

Courses that are lecture/lab and contain manipulative skills are presented from 8:00 to 5:00 to accommodate time needed to practice and demonstrate the outcomes. Lecture/lab and lab class attendance is restricted to 24 due to the nature of the class activity and the need to keep the span of control close.

Approximately, 71% of the classes that are offered on weekends are primarily didactic. Standard didactic class enrollment is 32 with the option to add more if the instructor believes the additional numbers will not compromising content delivery.

Distance Learning courses are limited to 24 students due to the logistical nature of on-line courses. The instructor has the option of allowing more students dependent on the instructor’s comfort zone with the number of students and the instructional media platform. All distance learning classes are didactic with some exceptions where field trips are included but not mandatory.

Currently, all FPT classes are delivered on the Cascade Campus, with two exceptions; the Firefighter Skills Academy and Emergency Service Rescue classes. Portions of these classes must frequently be held at off-campus locations. Remote location offerings of classes have been done in the past to reach out to students that live on the periphery of the district. However, this does not appear to have accomplished that specific goal.

The FPT program is exploring the possibility of offering courses at PCC Willow Creek Center due to the increased student base in Washington County.

Figure 6-1 shows a breakdown, by course, of when and how the courses have been offered in the past four terms. Note: some courses have not been offered in the past four terms, thus are not marked.
## Scheduling Pattern
### By Course

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Name</th>
<th>Weekdays</th>
<th>Weekends</th>
<th>Evening</th>
<th>Distance Learning</th>
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<tbody>
<tr>
<td>FP 101</td>
<td>Intro to Fire Protection</td>
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<td>FP 111</td>
<td>Firefighting Skills I</td>
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<tr>
<td>FP 112</td>
<td>Firefighting Skills II</td>
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<td>X</td>
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<tr>
<td>FP 113</td>
<td>Firefighting Skills III</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<td>FP 121</td>
<td>Fire Science I (Fire Behavior and Combustion)</td>
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<td>FP 122</td>
<td>Fundamentals of Fire Prevention</td>
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<td>FP 123</td>
<td>Hazardous Materials</td>
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<td>FP 131</td>
<td>Introduction to High Angle Rescue</td>
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<td>Fire Apparatus, Pump Construction and Operation</td>
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<td>FP 133</td>
<td>Natural Cover Forest Firefighting</td>
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<td>Arson Law, Evidence and Motives</td>
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<td>Advanced Fire And Arson Investigation</td>
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<td>Advanced Wildland Fire Behavior</td>
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Figure 6-1
6.5(b) Program Pedagogy

In the post 911 world, it has become increasingly clear that the emergency services hire and train personnel in a wide assortment of activities that take on a global perspective. This takes on the task of acclimating students not just to the technical skills but how to deal with events that they have never been trained to do or even considered. Emergency service providers have come under the same scrutiny that other organizations have had to endure thus the documentation of activities has become critical for legal and medical ramifications.

Certifications are becoming more important and many skill set are mandated or will be mandated by the Federal and State governments. There is growing recognition that the workplace of the future will require new and different skills of all workers, including not only job-specific skills, but also transferable generic skills that will help them to acquire further education and training throughout their careers.

The FPT program provides students:
- academic subject matter taught with relevance to the real world
- employability skills, from job-related skills to workplace ethics
- career pathways that link secondary and postsecondary education
- second-chance education and training
- education for additional training and degrees, especially related to workplace training, skills upgrades and career
SECTION 7

Employer Needs
And
Student Preparation to Enter Career
7.1 Impact of Advisory Committee on Curriculum

In recent FPT Advisory Committee meetings, the committee has asked the FPT program to address the following: Customer Service, Post Traumatic Stress, Ethics, Teamwork, Integrity, wellness, Safety, Disaster Management, and Student Diversity. The following actions have been taken on these subjects:

- **Customer Services:** Advising students to take Management/Supervisor Development course for electives.
- **Post Traumatic Stress:** Advising students to SOC 232, Death and Dying: Culture Issues, SOC 213: General Sociology: Diversity in the United States as general educations requirement.
- **Ethics, Teamwork and Integrity:** Currently, students are advised to take FP 210, Multicultural Strategies for Fire fighters as an elective. However, based on recommendations from the Advisory Committee, future revisions to the AAS degree will include this in the required curriculum. In addition, they recommended that PHL 202 Introduction to Ethics be included.
- **Wellness and Safety:** Recommending Health & fitness courses and OSHA class.
- **Disaster Management:** Advising students to take FP 9070, Major Emergency Tactics and Strategy, and several of the Emergency management classes as electives.
- **Student Diversity:** The FPT program has started collecting data to help understand student diversity issues. The program plans to assemble a committee to help direct diversity efforts on the part of the FPT program.

7.2 Degree and Certificate Outcomes

7.2(1) List of Degree Outcomes and Strategies for Assessing Them

**Outcome 1.** Upon completion of the program the student will meet the fire-related performance objectives in NFPA 1001, *Standard for Fire Fighter Professional Qualifications*, 2008 edition, Fire Fighter I and II, which include:

(a) Perform duties safely and effectively in accordance with the fire department organizational structure.

   **Assessment Strategy:** In FP 112 an outcomes assessment check list this has been developed.

(b) Communicate effectively with the general public, crew members, supervisors, and other emergency responders.

   **Assessment Strategy:** In FP 112 an outcomes assessment check list this has been developed.

(c) Operate safely and effectively on an emergency scene

   **Assessment Strategy:** In FP 111 and FP 112 an outcomes assessment check list this has been developed.

(d) Perform safely and effectively as a member of a team during a rescue operation.

   **Assessment Strategy:** In FP 201 an observational check list (to be developed) and/or Completion of Fire Academy Skills Booklets (to be decided).

(e) Perform prevention, preparedness, and maintenance activities related to reducing the loss of life and property due to fire through hazard identification, inspection, and response readiness.

   **Assessment Strategy:** In FP 111 and FP 112 an outcomes assessment check list this has been developed.
Outcome 2. Upon completion of the program the student will meet all the requirements of NFPA 472: Standard for Competence of Responders to Hazardous Material/Weapons of Mass Destruction Incidents which include:

(a) Recognize the presence of the hazardous materials/WMD, protect themselves, call for trained personnel, and secure the scene. (Awareness)  
**Assessment Strategy:** FP 123 will use the Oregon State Department of Public Safety Standards Training (DPSST) task book for Hazardous Materials Awareness.

(b) Respond to hazardous materials/WMD incidents for the purpose of protecting nearby persons, the environment, and property from the effects of the release. (Operations)  
**Assessment Strategy:** FP 123 will use the Oregon State Department of Public Safety Standards Training (DPSST) task book for Hazardous Materials Operations.

Outcome 3. Upon completion of the program the student will meet the application requirements set by the National Registry of Emergency Medical Technicians which includes:

(a) Act in accordance with the ethical and professional medical standards of the entry level EMT Basic  
**Assessment Strategy:** Conducted by the EMS Department in EMS 105 and 106: practical and cognitive final; professional behavior infraction count (3 infraction maximum)

(b) Meet the academic eligibility requirements for taking both cognitive and practical State and National Certification examinations at the EMT Basic level  
**Assessment Strategy:** Conducted by the EMS Department in EMS 105 and 106: practical and cognitive final.

(c) Demonstrate communication skills of the medical environment in order to develop and maintain professional client relationships at the EMT Basic level  
**Assessment Strategy:** Conducted by the EMS Department in EMS 105 and 106: Students must pass an assignment in which they write a sample pre-hospital patient care chart known as a SOAP chart.

(d) Demonstrate the professional and technical skill set necessary to meet the EMT Basic standard of care in a safe manner under diverse conditions.  
**Assessment Strategy:** Conducted by the EMS Department in EMS 105 and 106: practical and cognitive final.

7.2(2) Summary of Assessment of Outcomes

As a result of the recent NWCCU accreditation report/requirements, it was determined that the degree outcomes needed cleaning up. As a result, the FPT program reduced its outcomes to 3 major outcomes. Each outcome was then broken down to address more specific pieces. Assessment strategies were identified in conjunction with the sub-categories. Approximately one-third of the assessment strategies are in place and being used. The other two thirds have been developed, but as of this time, have not been implemented.

7.2(3) Assessment-Driven Changes Made to Improve Student Attainment of Degree Outcomes

The assessment has caused the outcomes to become more comprehensible and realist for the student and the needs of the industry. The assessment has also identified and generated documentation vehicles that are more concrete than what is currently being used. An example of this is the observational check list that has been developed to assess the outcomes of FP 111 - Fire Fighter I Skills Academy and FP 112 - Fire Fighter II Skills Academy. The combination of the observational check list and the Skills Booklet for the two courses will provide the needed documentation. A skills assessment booklet is currently being developed for FP - 123 Haz Mat Awareness/Operations and will be complete by fall 2011.
7.3  Job Data

7.3(a)  Placement Data

A survey of graduates was conducted during fall 2010. Data from the survey indicates approximately 85.0% are employed in the field and 15.0% are currently not employed in the field. Of the graduates surveyed, approximately 50.0% are employed as career fire fighters, 23.0% are volunteer fire fighters and 19.0% are interns.

Note: There were a total of 475 surveys sent out. Of those, only 32 were returned. Because of the low return rate, the data are limited in reliability.

7.3(b)  Forecasted Opportunities

Based on 2009 Department of Labor statistics, employment of fire fighters is expected to grow faster than the average for all jobs. It is expected to grow by 19 percent over the 2008-2018 decade. Most job growth will stem from volunteer fire fighting positions being converted to paid positions (United States Department of Labor, Bureau of Labor Statistics, Occupational Outlook Handbook, 2010-2011 Edition).

7.4  Barriers to Degree Completion

Barriers to degree completion come in many different forms. The opportunity to address this issue occurs whenever a student is determined to be undertaking their education pursuits after an extended period without taking classes. Barriers that have been identified include:

- Accepted employment and wanted to concentration on the job for the first year while on probation.
- After the student’s probation period was completed, the student felt less of a need to complete the degree.
- Less time available due to work, family, and other obligation; this appears to be a barrier regardless if the student gained employment in the industry or not.
- Financial hardship in combination with work schedules.
- Loss of interest in the career.
- Military obligations.
- Relocation due to job requirements, family needs, and other personal reasons.

7.5  Additional Changes to Program Not Previously Identified

All changes since the last Program Review are believed to have been addressed or identified.
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SECTION 8

Recommendations
8.1 Recommendations Related to Teaching and Learning

It should be noted that summer terms have consistently had the widest discrepancy between credits taught by FT and PT faculty. The most likely explanation for this is the fact both full-time faculty are on 9 month contracts, thus the load they have carried in the summer has varied. This variance could be solved if one of the FT worked fall, winter, and spring, and the other worked winter, spring, and summer (or other 3-term combination).

In addition, the following issues related to teaching and learning should be addressed:

- Create more opportunities for critical thinking.
- Reduce substitutions in the degree.
- Refine the Degree Outcomes
- Update and revise course Content and Outcome Guides
- Change the 9000 numbered courses to 3 digit and update the Course Content and Outcomes
- Change and update the PCC catalog description to match the changes

8.2 Other Recommendations

8.2(a) Current Curriculum

In 2010, it was identified that there were some unintended consequences which developed as a result of the 2008 FPT AAS Degree revision. The 2008 revision created problems for the college’s Student Records office, including graduation assessment. As a result, the FPT program has proposed a revision to the 2008 AAS Degree. The proposed revision incorporates new program degree outcomes, adds new courses recommended by the Fire Advisory committee, and establishes alternative courses for students that are currently working in the fire service. These alternative courses provide for a distinction between career fire fighters seeking a degree for advancement and students seeking entry level employment. These proposed revisions will be a short term fix to the unintended consequences and will give the FPT staff flexibility to work with the two identifiable types of students mentioned previously, seeking the AAS Degree. The adoption of the new revisions will also give program stakeholders the opportunity to take a fresh look at the Degree and to determine if the Degree itself needs to be re-developed from the ground up, and if a second Degree will be required to meet the needs of the two distinct types of students in the FPT program.

8.2(b) Professional Development

PCC can support and enhance part-time faculty professional development by taking advantage of the NFA resident (on-campus) courses. The NFA provides courses for free to all qualified fire service personnel. This would only require the College to cover the cost of transportation and food. The cost of the class and lodging is included as a part of the NFA’s continuing effort to enhance fire training and education. It should be utilized by PCC when an part-time faculty member has the ability to attend. This could be done in collaboration with the individual’s fire department.
8.2(c) Access and Success for Students

The continued development and support for Contract Credit (see 3.7 Contract Credit) is a positive way to give students increased access and improve student success. Although there are no data to support the following assumption, it is thought that fifty percent of FPT students are currently employed fire fighter working 24-hour shifts. By working with fire agencies to insure the integrity of off-site education programs, the College improves the program’s ability to help student attain a degree.

In addition, the FPT program intends on pursuing an effort to increase the “non-traditional workforce” student population. This will be done as follows:

- start a cadet program in conjunction with Jefferson High School and Self Enhancement, Inc.
- create a support/ focus group for students of the non-traditional workforce.
- utilize student and faculty form the non-traditional workforce to promote the program.

The FPT program would also like to create more opportunities for students to interact and serve the community. This could be done through cooperative education, volunteering, Service Learning and the SFFA.

8.2(d) Needed Resources

The following have been identified by FPT faculty and staff as needed resources:

- Improved drill ground facilities to better serve the fire Fighter Skills academies, Rescue class, and Driver/Pumper Operator classes.
- Better utilization of new age technology for the classroom to keep the new generation of students engaged in the learning process.
- Install a chemistry type “lab bench” in the classroom with a ventilation system that would facilitate conducting classroom demonstrations.
- Schedule maintenance and testing of equipment used on the drill ground and live evolutions.
- Investigate the possibility of an alternative facility such as leasing or partnering with a local fire department for the Fire Fighter Skills Academies and other courses that require equipment usage.

8.2(e) Being Responsive to Community Needs

In the FPT program, we feel we serve to communities: the citizens of PCC’s District and the fire service. Given those two communities, the following are ways we are being responsive to them:

- The FPT is going to pursue IFSAC accreditation for both the degree program and for awarding international certifications to fire service personnel.
- The FPT is striving to meet a unique challenge faced by career fire service personnel. That challenge is the pursuit of a college degree while working 24-hour shifts. Also, recognition of the training and education they receive as a member of a fire department. One possible approach is OSOT.
- Clackamas County Fire District #1 has requested the program identify students who fluent in a second language to assist the organization with fire prevention and public education activities involving citizens who are not fluent in English.
- The FPT program has been receptive to the needs of the community primarily through the SFFA. However, the students need more direct involvement from the faculty advisor. At present, the work load for the faculty advisor is such that it is prohibiting.
- Integrating Service Learning in classes would assist the local community in meeting some of its needs and add value to the student educational experience. Involvement in organizations, such as Stop Oregon Litter and Vandalism, Habitat for Humanity, Salvation Army, Portland Fire Department’s Historic Belmont Station museum, and neighborhood associations, help achieve PCC Core Outcomes such as Community and Environmental Responsibility, also Cultural Awareness.
8.2(f) Additional Funding Needs

The following have been identified by the FPT program as areas requiring additional funding:

- Add an Instructional Support Technician (IST) or make one IST position full-time as opposed to ¾ time. This is needed to support the logistical needs of the program, including the skills academy classes, rescue class, and driver operator class.
- Add a media technician to create and/or upgrade audiovisual materials for classroom presentations.
- Replace the three older fire engines with new “state-of-the-art” fire engines.
- Replace self-contained breathing apparatus (SCBA) air cylinders. Federal regulations require SCBA air cylinders to be replaced after 15 years. The FPT programs cylinders are 10 to 12 years old.
- Replace fire fighter protective ensembles (“turn-out” gear) utilized by students. Federal regulations and OR-OSHA require students to wear turn-outs when performing fire training. As a result, students must wear turn-outs to complete all course competencies.
Appendix – A

Course Content and Outcomes Guides

October 21, 2010 Version
Course Content and Outcome Guide for FP 101

Date: 14-SEP-2006  
Posted by: Curriculum Office  
Course Number: FP 101  
Course Title: Intro to Fire Protection  
Credit Hours: 3  
Lecture hours: 30  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee: 

Course Description  
Studies the history and development of fire service as well as safety and security movements. Identifies general fire hazards and their causes and how to apply fire protection principles.

Addendum to Course Description  
This course will review the development of modern fire departments, their function and organization. Students will review publications, magazines, and fire service journals in an effort to obtain employment in the fire service and related fields. This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #05-02, #05-03, #15-02, #15-03, #25-02, #35-11.01, and #35-11.02. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course  

Course Activities and Design  
The material in this course will be presented in a lecture and discussion format. Other educational methods including guest speakers, research papers, demonstrations, simulations and presentations may be employed.

Outcome Assessment Strategies  
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, book and journal article reviews, written and oral reports, simulations, and classroom presentations.

Course Content (Themes, Concepts, Issues and Skills)  
REQUIRED STUDENT COMPETENCIES:  
A. Describe the basic requirements for entering the fire service and related fields.  
B. Describe the history of the fire service and how its roles and responsibilities have changed and how these changes affect today's communities.  
C. Describe a typical fire service organizational structure, its components and related activities.  
D. Describe common types of fire apparatus and equipment used by local fire departments.  
E. Describe private fire protection systems and equipment that compliment public fire protection activities.  
F. Define basic fire behavior terms as related to fire protection and suppression.  
G. Demonstrate typical radio and telephone operations for the receipt and processing of emergency and non-emergency communications.
Course Content and Outcome Guide for FP 111

Date: 27-MAY-2008  
Posted by: NAME NOT FOUND FOR PIDM:  
Course Number: FP 111  
Course Title: Firefighter I Skills Academy  
Credit Hours: 10  
Lecture hours: 50  
Lecture/Lab hours: 80  
Lab hours: 30  
Special Fee: $30

Course Description
Designed to meet NFPA 1001: Chapter 5; Fire Fighter I, training requirements, this course provides a program that presents comprehensive training in all aspects of basic firefighting skills. Knowledge obtained from classroom instruction is transferred to drill ground application, during hands-on training. Students study basic tools, procedures, techniques and safety precautions utilized by fire fighters, during fire ground operations. PCC department application acceptance required.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for NFPA 1001: Chapter 5; Fire Fighter I. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
Students complete all training and education requirements for Fire Fighter I Level Certification, per NFPA, 1001, Chapter 5, and the Oregon Dept. of Public Safety Standards & Training (DPSST).

Course Activities and Design
This course provides an opportunity to work with fire fighting tools and equipment used by the fire service, as well as opportunities to apply skills learned in scenario based training sessions. The material in this course will be presented in a lecture, demonstration and practical application format.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, simulations, and drill ground demonstrations and evaluations.

Course Content (Themes, Concepts, Issues and Skills)
- Demonstrate basic knowledge of the organization of the fire department.
- Demonstrate basic knowledge of the critical aspects of NFPA 1500: Standard on Fire Department Occupational Safety and Health Program.
- Demonstrate the ability to don personal protective clothing within one minute; doff personal protective clothing and prepare for reuse.
• Demonstrate basic knowledge and skills in initiating responses, receiving telephone calls, and using fire department communications equipment to correctly relay verbal or written information.
• Demonstrate basic knowledge and skills in use of Self Contained Breathing Apparatus (SCBA) during emergency operations.
• Demonstrate basic knowledge and skills to hoist tools and equipment using ropes and the correct knot; tie a bowline, clove hitch, figure eight on a bight, half hitch, becket or sheet bend, and safety knots.
• Demonstrate basic knowledge and skills to operate in established work areas at emergency scenes.
• Demonstrate basic knowledge and skills to carry ladders, raise ladders, extend ladders and place the ladder to avoid obvious hazards.
• Demonstrate basic knowledge of principles of fire streams; types, design, operation, nozzle pressure effects, flow capabilities of nozzles and the application of each size and type of attack line.
• Demonstrate basic knowledge and skills to perform horizontal and vertical ventilation on a structure, as part of a team.
• Demonstrate basic knowledge and skills to overhaul a fire scene and ensure fire cause evidence is preserved.
• Demonstrate basic knowledge and skills to perform salvage/conserve property as a member of a team.
• Demonstrate basic knowledge and skills to attack a passenger vehicle fire, operating as a member of a team.
• Demonstrate basic knowledge and skills to conduct a search and rescue in a structure, operating as a member of a team.
• Demonstrate basic knowledge and skills to connect a fire department pumper to a water supply, as a member of a team.
• Demonstrate basic knowledge and skills to extinguish incipient Class A, Class B, and Class C fires, given a selection of portable fire extinguishers.
• Demonstrate basic knowledge and skills to operate fire department power supply and lighting equipment.
• Demonstrate basic knowledge and skills to extinguish Class A fires in materials, structures or storage containers that can be fought from the exterior.
• Demonstrate basic knowledge and skills to combat a ground cover fire, operating as a member of a team.
• Demonstrate basic knowledge and skills to attack an interior structure fire, operating as a member of a team.
• Demonstrate basic knowledge and skills to perform a fire safety survey in a private dwelling.
• Demonstrate basic knowledge and skills to clean and check ladders, ventilation equipment, self-contained breathing apparatus (SCBA), ropes, salvage equipment, and hand tools, and to clean, inspect, and return fire hose to service.
• Demonstrate basic knowledge and skills to present fire safety information to fire station visitors or small groups, given prepared materials.
• Complete the Hazardous Materials Awareness Level Training Program.
• Complete an accredited CPR and First Aid Program.
Course Content and Outcome Guide for FP 112

Date: 03-DEC-2007
Posted by: Curriculum Office
Course Number: FP 112
Course Title: Firefighting II Skills Academy
Credit Hours: 7
Lecture hours: 20
Lecture/Lab hours: 100
Lab hours: 0
Special Fee: $30

Course Description
Designed to meet NFPA Standard 1001 "Firefighter II" training requirements, this course continues to develop basic fire fighter skills learned in FP 111 while increasing technical knowledge of fire ground operations, placing more emphasis on team skills, through evolutions, and live fire training. Prerequisite: FP 111.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for Level I Fire Fighter.

Intended Outcomes for the course
Students complete all training and education requirements for "Firefighter II" Level Certification, per the National Fire Protection Association (NFPA), Standard 1001, Chapter 6, and the Oregon Dept. of Public Safety Standards & Training (DPSST).

Course Activities and Design
This course provides an opportunity to work with fire fighting tools and equipment used by the fire service. The material in this course will be presented in a lecture, demonstration, and practical application format.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, simulations, and drill ground demonstrations and evaluations.

Course Content (Themes, Concepts, Issues and Skills)
REQUIRED STUDENT COMPETENCIES:
A. Demonstrate as an individual, and as a team member, basic hose evolutions.
B. Describe preventative maintenance used for fire service ladders and demonstrate basic skills in the safe and proper methods for carrying and raising ladders.
C. Describe salvage practices and demonstrate as an individual, and as a team member, salvage throws and the construction of catch-alls.
D. Describe the importance of proper overhaul practices and how it relates to the total mission of fire suppression.
E. Describe the importance of ventilation and how it relates to rescue and fire suppression activities.
Course Content and Outcome Guide for FP 113

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 113
Course Title: Firefighting Skills III
Credit Hours: 4
Lecture hours: 20
Lecture/Lab hours: 0
Lab hours: 60
Special Fee: $24

Course Description
Studies advanced fire fighting skills and applies these skills during weekly drill activities. Equipment and procedures learned in FF Skills I & II are utilized in an operational format. Students function as a firefighter, apparatus operator, company officer, and training officer during drill activities. Prerequisite: FP 111, 112.

Addendum to Course Description

Intended Outcomes for the course

The instructor will cover the goals and objectives listed in this Course Content guide. The Course Content Guides are developed by college-wide subject area faculty and approved by Management.

1.0 Care, Maintenance and Operation of Self Contained Breathing Apparatus.

The goal is for the student to demonstrate inspection, operation, care and maintenance procedures for practical use of SCBA.

1.1 The individual shall describe the steps to determine that breathing apparatus is ready for use (BPSST #05-11.05)
1.2 The individual shall demonstrate how to change an empty air cylinder. (BPSST #05-11.06)
1.3 The individual shall demonstrate the procedures for cleaning and sanitizing protective breathing apparatus. (BPSST #15-16.01)
1.4 The individual shall describe and demonstrate the procedures for routine inspection and maintenance of breathing apparatus (BPSST #15-16.02)
1.5 The individual shall describe the correct procedures for recharging breathing apparatus (BPSST #15-16.03)
1.6 The individual shall demonstrate use of breathing apparatus under the following conditions (BPSST #15-16.05)
   1.6.1 Helping other firefighters
   1.6.2 Conserving air
   1.6.3 Restricted use of bypass
   1.6.4 Valves
   1.6.5 Obstacle course
   1.6.6 Zero visibility
2.0 Care, Maintenance and Operation of Power Tools and Portable Pumps

The goal is for the student to demonstrate care, maintenance and operational procedures for use of the following power tools:
2.1.1 Circular saw.
2.1.2 Hydraulic tool.
2.1.3 Chain saw.
2.1.4 Portable generator.
2.2 The individual will describe care, maintenance and operational procedures for use of portable float pumps.

3.0 Fire Equipment, Apparatus, and Personnel Inspection and Testing

The goal is for students to gain knowledge and understanding of why, when and how fire service equipment is inspected and tested.

3.1 Individual shall demonstrate daily equipment and apparatus inspection procedures.
3.2 Individual will describe periodic inspection and testing requirements and procedures for the following:
   3.2.1 Hose.
   3.2.2 Ladders.
   3.2.3 SCBA.
   3.2.4 Pumps.
   3.2.5 Personnel.

4.0 Company Operations, Individual Duties and Responsibilities

The goal is for students to become familiar with the responsibilities of each position in the Fire Company and to demonstrate skill in each position during company operations in the station and on the drill grounds.

Objectives:
4.1 Individual shall demonstrate the duties and responsibilities of the following positions:
   4.1.1 Company Officer
   4.1.2 Driver/Engineer
   4.1.3 Nozzle Person
   4.1.4 Hydrant Person
4.2 Individual shall describe the chain of command and procedures required for proper channeling of information, orders and requests.

5.0 Multi-Company Operations

The goal is for students to become familiar with multiple fire company operations and to demonstrate skills during company operations on the drill grounds.

Objectives
5.1 Individual shall demonstrate the functions of an engine company.
5.2 Individual shall demonstrate the functions of a truck company.
5.3 Individual shall demonstrate firefighting skills within multi-company operations.

Course Activities and Design

This course will include two lecture hours and six lab hours per week. This course is a core requirement for an Associate of Applied Science in the Fire Protection Technology and carries four credits. This course fulfills the Oregon Board of Public Safety, Standards and Training subjects.
Outcome Assessment Strategies
The instructor will discuss the evaluation process at the beginning of the course. The evaluation will be based on a course syllabus, which will be issued to the students. The evaluation will be based on current academic and fire service standards as outlined by the Oregon State Board of Education and the Oregon Board of Public Safety, Standards and Training.

Course Content (Themes, Concepts, Issues and Skills)
The student must have satisfactorily completed:
- Firefighting Skills I - FP 111
- Firefighting Skills II - FP 112
Course Content and Outcome Guide for FP 121

Date: 22-JUL-2009
Posted by: Edward Lindsey
Course Number: FP 121
Course Title: Fire Behavior and Combustion
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Fire Behavior and Combustion Course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled. There will be an emphasis on compartment fire behavior. Recommend: MTH 65.

Addendum to Course Description
Studies characteristics and behavior of fire, fundamentals of physical laws and chemical reactions occurring in fire and fire suppression. Analyzes factors contributing to fire - its cause, rate of burning, heat generation and travel, by-products of combustion, and its confinement, control, and extinguishment. This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the NFPA 1001 requisite knowledge of fire behavior and the DPSST Fire Officer I requirement for Science. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
Students will meet National Fire Protection Association (NFPA) 1001: Fire Fighter standard for requisite knowledge of fire combustion and behavior. Students will also meet the Oregon Department of Public Safety Standards & Training (DPSST) requirement for "Science" as applied to NFPA 1021 Fire Officer I standard.

Course Activities and Design
This course is presented in interactive lecture, demonstration and discussion format with substantial use of case studies and other small group learning activities. Classroom work is supported with small and full scale laboratory exercises examining the combustion process and factors influencing fire development in a compartment and compartment fire control methods.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, laboratory analysis, written and oral reports, simulations, and classroom presentations.
Course Content (Themes, Concepts, Issues and Skills)

Required Student Competencies
The competencies for this course are outlined in the Fire Service Higher Education Consortium Model Curriculum for Associate Degree Fire Science programs for the course *Fire Behavior and Combustion.*

1. Identify physical properties of the three states of matter.
2. Categorize the components of fire.
3. Recall the physical and chemical properties of fire.
4. Describe and apply the process of burning.
5. Define and use basic terms and concepts associated with the chemistry and dynamics of fire.
6. Describe the dynamics of fire.
7. Discuss various materials and their relationship to fires as fuel.
8. Demonstrate knowledge of the characteristics of water as a fire suppression agent.
9. Describe other suppression agents and strategies.
Course Content and Outcome Guide for FP 122

Date: 14-SEP-2006
Posted by: Curriculum Office
Course Number: FP 122
Course Title: Funds of Fire Prevention
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies fundamentals of fire inspection standards and techniques of evaluation, identification of hazards and making practical recommendations. Students study fire prevention and education programs and conduct presentations.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #15-12 and #25-03. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course

Course Activities and Design
The material in this course will be presented in a lecture and discussion format. Other instructional methods including guest speakers, research papers, demonstrations, simulations and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, book and journal article reviews, written and oral reports, simulations, and classroom presentations.

Course Content (Themes, Concepts, Issues and Skills)
REQUIRED STUDENT COMPETENCIES:
A. List important historical fires and describe how those fires have influenced the development of modern fire prevention codes and ordinances.
B. Identify the causes of large-loss fires and contributing factors as they relate to fire deaths, injuries, and property loss through the analysis of statistical data.
C. Research current employment opportunities in fire prevention, code enforcement, administration, research and analysis, and public education.
Course Content and Outcome Guide for FP 123

Date: 25-FEB-2008  
Posted by: Edward Lindsey  
Course Number: FP 123  
Course Title: Haz Mat Awareness/Operations  
Credit Hours: 3  
Lecture hours: 30  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee:

Course Description
Designed to prepare individuals to safely respond to hazardous materials emergencies. Individuals will learn to analyze an incident; detect the presence of hazardous materials; survey the scene; collect hazard information from the DOT Emergency Response Guidebook; implement actions consistent with standard operating procedures; initiate protective actions and initiate the notification process.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection Technology and fulfills the requirements of the National Fire Protection Association Standard NFPA) 472 Hazardous Materials First Responder Operations. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
Students complete all training and education requirements for Hazardous Materials Awareness and Operations level certification, per National Fire Protection Association (NFPA) Standard 472 and State certification requirements per Oregon Department of Public Safety Standards and Training (DPSST).

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and practical application format. Other instructional methods including guest speakers, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, Quizzes, simulations, research papers, demonstrations, classroom presentation and participation.
**Course Content (Themes, Concepts, Issues and Skills)**

**Students will learn to:**
- Analyze hazardous materials incidents.
- Detect the presence of hazardous materials.
- Survey the hazardous materials incident from a safe location, identify container & material types.
- Collect hazard and response information.
- Initiate the notification process.
- Predict the behavior of a material and its container.
- Estimate the potential harm and level of risk.
- Determine response objectives and defensive options.
- Determine appropriate personal protective equipment (PPE) requirements.
- Implement a planned response, scene control, incident management system.
- Initiate protective actions, utilize PPE, and perform defensive controls.
- Evaluate and communicate the results of response actions.
- Terminate the incident.
Course Content and Outcome Guide for FP 131

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 131
Course Title: Intro High Angle Rescue
Credit Hours: .5
Lecture hours: 50
Lecture/Lab hours: 0
Lab hours: 90
Special Fee:

Course Description
Studies practical procedures, techniques, and safety procedures utilized by rescue personnel during rope rescue. Covers organization of a rope rescue team, equipment, requirements, scene evaluation, and rescuer safety will be covered. Practices basic rappel, relay and victim retrieval techniques.

Addendum to Course Description
This course fulfills the requirements for the Fire Standards and Accreditation Board subjects for #15-11. This course is transferable to degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- Identify types of ropes used in the fire service for rescue and demonstrate techniques for inspecting, cleaning, and maintaining rescue ropes.
- Demonstrate securing and hoisting rescue equipment through simulated rescue exercises.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including demonstrations, simulations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, simulations, and demonstrations.

Course Content (Themes, Concepts, Issues and Skills)
- Identify types of ropes used in the fire service for rescue and demonstrate techniques for inspecting, cleaning, and maintaining rescue ropes.
- Demonstrate securing and hoisting rescue equipment through simulated rescue exercises.
Course Content and Outcome Guide for FP 132

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 132
Course Title: App/Pump Const Oper & Hydraul
Credit Hours: 3
Lecture hours: 20
Lecture/Lab hours: 20
Lab hours:
Special Fee: $6

Course Description
Studies practical procedures, techniques, and safety precautions utilized during apparatus operations. Covers engine capabilities, pump construction, procedures for operation and hydraulic formulas utilized to calculate flow requirements. Prerequisite: FP 111.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for Fire Fighter I & II (#05-08, #15-08), Apparatus Operator I (#16-01, -02, -03). This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- Identify standards for fire apparatus specifications.
- Describe common fire apparatus characteristics and their primary functions.
- Describe effective fire streams and demonstrate safe nozzle operations.
- Describe basic principles of fire stream development, hydraulic calculations and demonstrate apparatus operations.
- Describe the principles of pump design, operation, capabilities, power transfer, water supply, trouble shooting, and solve operational problems.
- Demonstrate supplying fire streams from a hydrant.
- Define common terms used in fire service hydraulics and demonstrate written and field hydraulic formula calculations.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, research papers, demonstrations, simulations and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, written and oral reports, fire ground simulations, and classroom presentations.
**Course Content (Themes, Concepts, Issues and Skills)**

- Identify standards for fire apparatus specifications.
- Describe common fire apparatus characteristics and their primary functions.
- Describe effective fire streams and demonstrate safe nozzle operations.
- Describe basic principles of fire stream development, hydraulic calculations and demonstrate apparatus operations.
- Describe the principles of pump design, operation, capabilities, power transfer, water supply, trouble shooting, and solve operational problems.
- Demonstrate supplying fire streams from a hydrant.
- Define common terms used in fire service hydraulics and demonstrate written and field hydraulic formula calculations.
Course Content and Outcome Guide for FP 133

Date: 20-MAY-2008  
Posted by: Edward Lindsey  
Course Number: FP 133  
Course Title: Wildland Firefighter  
Credit Hours: 3  
Lecture hours: 30  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee: $0

Course Description
Trains students in the basic skills required for wildland fire fighting. Students will study wildland fire behavior, fire control tactics, human factors on the fire-line, standards for fire fighter safety & survival and receive an introduction to the incident command system.

Addendum to Course Description
This course is required for an Associate of Applied Science Degree in Fire Protection Technology and meets the National Wildfire Coordinating Group (NWCG) academic requirements for S-130 Firefighter Training, S-190 Introduction to Wildland Fire Behavior and L-180 Human Factors on the Fire-line. Students must complete a two day field exercise to meet NWCG certification requirements.

This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
Meet all National Wildfire Coordinating Group (NWCG) academic requirements for S-130 Firefighting Training, S-190 Introduction to Wildland Fire Behavior and L-180 Human Factors and Fireline. Participate in field experience required to complete practical tasks and meet NWCG standard for Red Card certification and DPSST certification for Interface Fire Fighter 2.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, research papers, demonstrations, simulations and presentations may be employed. Field exercises will be available during Fall and/or Spring Term for students seeking NWCG certification.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, book and journal article reviews written and oral reports, simulations, demonstrations, and classroom participation presentations. Students can receive a grade for FP 133 without completing the two day field exercise but will not meet NWCG certification requirements.

Course Content (Themes, Concepts, Issues and Skills)
S-130 Firefighter Training  
S-190 Introduction to Wildland Fire Behavior  
L-180 Human Factors on the Fire-line
Course Content and Outcome Guide for FP 141

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 141
Course Title: Intro Water Rescue
Credit Hours: .5
Lecture hours: 2.5
Lecture/Lab hours: 0
Lab hours: 7.5
Special Fee:

Course Description
Studies practical procedures, techniques, and safety precautions utilized by rescue personnel during water rescue response. Practices organization of a water rescue team, equipment requirements, scene evaluation, rescuer drown-proofing and basic victim retrieval techniques.

Addendum to Course Description
This course can be used as an elective towards an Associate Degree of Applied Science in Fire Protection and can be repeated for credit as a refresher course for a total of 1 credit hour.

Intended Outcomes for the course
- Describe safety precautions, requirements, and necessary decision making information regarding water rescue.
- Describe the importance of scene evaluations and identify methods for gathering critical information.
- Describe proper safety precautions around a water hazard while demonstrating a non-swimmer rescue operation.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, demonstrations, simulations and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
- Describe safety precautions, requirements, and necessary decision making information regarding water rescue.
- Describe the importance of scene evaluations and identify methods for gathering critical information.
- Describe proper safety precautions around a water hazard while demonstrating a non-swimmer rescue operation.
Course Content and Outcome Guide for FP 151

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 151
Course Title: Aircraft Crash & Rescue Basics
Credit Hours: .5
Lecture hours: 2.5
Lecture/Lab hours: 0
Lab hours: 7.5
Special Fee: $0

Course Description
Studies aircraft and airport systems, practical procedures, techniques, and safety precautions utilized by rescue personnel during aircraft crash and rescue response. Organization of a crash rescue team, equipment requirements, scene evaluation, and tactical and strategic considerations are covered. Prerequisite: FP 111.

Addendum to Course Description
This course can be used as an elective towards an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #25-06. This course is considered introductory but may also be used as a refresher in aircraft crash and rescue procedures and techniques.

Intended Outcomes for the course
- Describe aircraft structure and engine designs, hazards, escape systems, and airport runway and control systems.
- Describe tools, techniques, and procedures utilized during aircraft crash and rescue operations.
- Describe suppression procedures, rescue techniques, and strategies and tactics of aircraft rescue operations.

Course Activities and Design
The material in this course will be presented in a lecture and demonstration format. Other instructional methods including guest speakers, simulations, and tours may be employed.

Outcome Assessment Strategies
The material in this course will be presented in a lecture and demonstration format. Other instructional methods including guest speakers, simulations, and tours may be employed.

Course Content (Themes, Concepts, Issues and Skills)
- Describe aircraft structure and engine designs, hazards, escape systems, and airport runway and control systems.
- Describe tools, techniques, and procedures utilized during aircraft crash and rescue operations.
- Describe suppression procedures, rescue techniques, and strategies and tactics of aircraft rescue operations.
Course Content and Outcome Guide for FP 152

Date: 15-OCT-2007
Posted by: Curriculum Office
Course Number: FP 152
Course Title: Emerg Response to Terrorism
Credit Hours: 2
Lecture hours: 20
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Covers special needs of responders to incidents which may have been caused by terrorists. Includes definitions of terrorism, history of terrorists, suspicious circumstances, agents utilized by terrorists, self-protection, crime scene considerations, and special command issues.

Addendum to Course Description
This course is based on the National Fire Academy course and is primarily designed to address the needs of fire service personnel, emergency service providers and hazardous materials responders. Due to the broad scope of the subject matter, the course can be used to address the needs of those without prior hazardous materials training and provide benefits to law enforcement personnel, emergency communications personnel, emergency management personnel, public works management, public health workers, armed forces, and disaster response agencies.

Intended Outcomes for the course
- Define and discuss terrorism including identifying significant incidents that have occurred within the United States.
- Recognize circumstances and on-scene key indicators which may signify a suspicious incident.
- Implement appropriate self-protection measures.
- Define scene security considerations unique to terrorist incidents.
- Make appropriate notifications.
- Define and describe defensive considerations associated with biological, nuclear, incendiary, chemical and explosive (B-Nice incidents).
- Describe command and control issues associated with crime activities.
- Define and describe recovery and termination issues associated with terrorism incidents.

Course Activities and Design
the material in this course will be presented in a lecture, discussion and round table discussion format. Book and journal reviews as well as audio/visual displays will be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, participation in discussion, round table discussions, and presentations.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 161

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 161
Course Title: Vehicle Extr Basics
Credit Hours: .5
Lecture hours: 2.5
Lecture/Lab hours: 0
Lab hours: 7.5
Special Fee:

Course Description
Studies procedures utilized for extrication of injured victims from motor vehicles, tools, equipment and hazards associated with vehicle extrication and safety considerations during rescue operations.

Addendum to Course Description
This course fulfills the requirements for the Fire Standards and Accreditation Board subjects for #15-10.02. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
Demonstrate removal of an injured person from the immediate hazard by use or carries, drags, and stretchers.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including demonstrations, simulations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, simulations, and demonstrations.

Course Content (Themes, Concepts, Issues and Skills)
Demonstrate removal of an injured person from the immediate hazard by use or carries, drags, and stretchers.
Course Content and Outcome Guide for FP 200

Date: 05-SEP-2008  
Posted by: Curriculum Office  
Course Number: FP 200  
Course Title: Fire Serv. Hyd. & Water Sup.  
Credit Hours: 3  
Lecture hours: 30  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee:

Course Description  
Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Recommend: MTH 65.

Addendum to Course Description  

Intended Outcomes for the course  
Apply mathematic calculations and the principles of physics to the movement of water in fire suppression activities.

Use an understanding of the design principles of fire service pumping apparatus to determine the volume and pressure required to flow appropriate amounts of water through handlines, appliances and nozzles to provide an effective water stream.

Analyze community fire flow demand criteria.

Demonstrate, through problem solving, a thorough understanding of the principles of forces that affect water at rest and in motion.

Course Activities and Design

Outcome Assessment Strategies

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 201

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 201
Course Title: Emergency Service Rescue
Credit Hours: 4
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 30
Special Fee: $12

Course Description
Studies a variety of procedures, equipment, and tools utilized by emergency rescue personnel. Become familiar with building search, auto extrication, aircraft crash, high angle, and water rescue. Prerequisite: FP 111.

Addendum to Course Description
This course is designed to introduce students to many of the different rescue situations emergency personnel may have to respond. Basic emergency service rescue procedures are emphasized along with exposure to more advanced skills and techniques. This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #15-10. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- Describe the physical fitness demands that may be required during a rescue operation and give an example of a personal physical fitness program that would meet those demands.
- Describe the importance of SCBA's during rescue operations and demonstrate operational procedures, searching techniques, and victim retrieval while utilizing an SCBA.
- Describe vehicle extrication procedures and safety precautions.
- Demonstrate the use of hand tools and power tools for victim disentanglement.
- Describe procedures and techniques for high angle rescue and demonstrate the use of equipment used to assist and support a high angle rescue team.
- Describe the rescue equipment, techniques and procedures necessary for assisting and supporting a water rescue team. Describe aircraft structure and engine designs, hazards, escape systems, and airport runway and control systems.
- Describe tools, techniques, and procedures utilized during aircraft crash and rescue operations.
- Describe suppression procedures, rescue techniques, and strategies and tactics of aircraft rescue operations.
- Describe and demonstrate procedures, equipment, and techniques utilized for the following types of rescue situations:
  a. Ground search
  b. Cave-in
  c. Downed electrical lines
  d. Ice rescue
  e. Helicopter support
Course Activities and Design
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, demonstrations, simulations and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, written and oral reports, simulations, scenarios, and classroom presentations.

Course Content (Themes, Concepts, Issues and Skills)
- Describe the physical fitness demands that may be required during a rescue operation and give an example of a personal physical fitness program that would meet those demands.
- Describe the importance of SCBA's during rescue operations and demonstrate operational procedures, searching techniques, and victim retrieval while utilizing an SCBA.
- Describe vehicle extrication procedures and safety precautions.
- Demonstrate the use of hand tools and power tools for victim disentanglement.
- Describe procedures and techniques for high angle rescue and demonstrate the use of equipment used to assist and support a high angle rescue team.
- Describe the rescue equipment, techniques and procedures necessary for assisting and supporting a water rescue team. Describe aircraft structure and engine designs, hazards, escape systems, and airport runway and control systems.
- Describe tools, techniques, and procedures utilized during aircraft crash and rescue operations.
- Describe suppression procedures, rescue techniques, and strategies and tactics of aircraft rescue operations.
- Describe and demonstrate procedures, equipment, and techniques utilized for the following types of rescue situations:
  a. Ground search
  b. Cave-in
  c. Downed electrical lines
  d. Ice rescue
  e. Helicopter support
Course Content and Outcome Guide for FP 202

Date: 23-MAR-2010  
Posted by: Danial Myers  
Course Number: FP 202  
Course Title: Fixed Systems & Extinguishers  
Credit Hours: 3  
Lecture hours: 30  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee:  

Course Description  
Fixed Systems and Extinguishers Studies portable extinguisher equipment, fire alarm and detection systems, sprinkler systems and standpipes, protection systems for special hazards, explosion release, ventilation systems, inert atmospheres and static bonding. Prerequisite: FP 111.

Addendum to Course Description  
This course is designed to give students a basic overview of fixed protection, detection, and alarm systems. The course also covers methods of maintenance, operations, and testing of these systems. This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the appropriate performance objectives of NFPA standards for Fire Fighter I and II. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course  

Course Activities and Design  
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, book and journal article reviews, written and oral reports, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies  
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, written and oral reports, simulations, classroom projects and presentations.

Course Content (Themes, Concepts, Issues and Skills)  
REQUIRED STUDENT COMPETENCIES:
A. Describe the significant historical events that have influenced fire protection technologies.
B. List the various classes of fire and describe the appropriate methods of extinguishment.
C. List the major types of alarm systems and describe the purpose and function of their major components.
D. List the major types of sprinkler systems and describe the purpose and function of their major components.
E. List the major types of standpipe systems and describe the purpose and function of their major components.
F. List the major types of chemical systems and describe the purpose and function of their major components.
G. List the major types of explosive suppression and ventilation systems and describe the purpose and function of their major components.
H. Describe the value of automatic sprinkler systems in providing life safety and property protection.
I. Demonstrate connecting to an FDC and the changing of a flowing sprinkler head.
Course Content and Outcome Guide for FP 203A

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 203A
Course Title: Intro Firefighting Tac & Strat
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies fireground tactics and strategy, responses and size-up, protection of exposures, containment, extinguishment, the command post, combined operations, analysis and post-mortem evaluation, pre-fire surveys and planning. Prerequisite: FP 111.

Addendum to Course Description
This course is designed to give students a basic overview of fire ground tactics and strategy, and an introduction to the Incident Command System. This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects #35-14 and #61-02, and is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- List and describe the major functional roles of the Incident Command System.
- Describe purpose of the Incident Command System and how it provides for "unity of command" and "span of control."
- Describe methods of establishing and transferring command at an incident.
- Describe how to establish strategic objectives based upon incident priorities, situation status, and resources capabilities.
- Participate in and/or observe fire simulation exercises which involve radios.
- Describe the components of a pre-fire plan.
- Identify fire ground factors that influence size-up and how they related to developing strategies.
- Explain basic hose line placement in a given situation.
- Describe the purpose for ventilation, confinement, control, and extinguishment of fire in structures and describe the procedures required to complete those fire ground operations.
- Describe the effect of building construction and occupancies have on fire behavior.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, book and journal article reviews, written and oral reports, table top simulations, demonstrations, and audio and visual presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, written and oral reports, fire simulations, classroom projects and presentations.
Course Content (Themes, Concepts, Issues and Skills)

- List and describe the major functional roles of the Incident Command System.
- Describe purpose of the Incident Command System and how it provides for "unity of command" and "span of control."
- Describe methods of establishing and transferring command at an incident.
- Describe how to establish strategic objectives based upon incident priorities, situation status, and resources capabilities.
- Participate in and/or observe fire simulation exercises which involve radios.
- Describe the components of a pre-fire plan.
- Identify fire ground factors that influence size-up and how they related to developing strategies.
- Explain basic hose line placement in a given situation.
- Describe the purpose for ventilation, confinement, control, and extinguishment of fire in structures and describe the procedures required to complete those fire ground operations.
- Describe the effect of building construction and occupancies have on fire behavior.
Course Content and Outcome Guide for FP 208

Date: 22-JUL-2009
Posted by: Djambel Unkov
Course Number: FP 208
Course Title: Emergency Ops Safety & Surv
Credit Hours: 2
Lecture hours: 10
Lecture/Lab hours: 20
Lab hours: 0
Special Fee: $6

Course Description
Emergency Operations Safety & Survival Prepares students to initiate rapid intervention, emergency procedures and self rescue tactics; identify and avoid potentially dangerous conditions, predict the potential for unexpected and unusually extreme conditions during emergency operations on the fire ground and other emergency incidents. Prerequisite: FP 111 Prerequisite/Concurrent: FP 201

Addendum to Course Description
Students will become familiar with NIOSH case studies of FF LODD, reading smoke and building conditions, RIT Ops, "Mayday" procedures, building search, emergency entry, exit & bailout procedures, air management, FF rescue and extrication from above and below grade, over window and wall breaching and entanglements.

Intended Outcomes for the course
Reduce the risk of FF injury and line of duty deaths through education.

Course Activities and Design
This course will challenge students to function utilizing emergency operating procedures during unexpected and simulated extreme conditions.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, simulations, and drill ground demonstrations and evaluations. Students will be required to demonstrate competency in a variety of tasks associated with fire fighter emergency procedures, safety and survival.

Course Content (Themes, Concepts, Issues and Skills)
1. History and development of fire fighter safety and survival concepts.
2. Statistical relevance of fire fighter injury and line of duty death investigations.
3. Common problems associated with emergency operations at incidents and how to identify and avoid them.
4. Practical procedures to apply during emergency operations when unexpected and unusually extreme conditions are encountered.
Course Content and Outcome Guide for FP 210

Date: 22-JUL-2009  
Posted by: Djambel Unkov  
Course Number: FP 210  
Course Title: Multicultural Strat for FF  
Credit Hours: 3  
Lecture hours: 30  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee:  

Course Description
Multicultural Strategies for Firefighters Provides familiarization with communication styles, customs, language and behavior patterns of various cultures, ethnic groups and non-traditional populations as employed by and encountered by the fire service and other emergency service professions.

Addendum to Course Description
This course is designed to give students a basic overview on the history and impact of prejudice, discrimination and racism within the fire service. Students will learn the importance of relating to their coworkers and all segments of the communities they serve in a fair and unbiased manner. The fire service in the United States is a microcosm of American society and is becoming more multicultural in its workforce make-up. Progressive and responsive fire departments recognize the value to educate and train their personnel to be culturally competent, value cultural differences and acquire cross-cultural skills. They realize this is an on-going process which requires being open to new paradigms because of changing demographics.

Intended Outcomes for the course
- Work in the changing fire department which is a microcosm of society.
- Use effective recruitment, retention, and promotion strategies in fire departments.
- Utilize effective multicultural awareness training methods in fire departments.
- Communication effectively with firefighters in the workplace and while providing service delivery in multicultural communities.
- Provide a positive public safety approach to specific cultures.
- Differentiate between the firefighter image and cultural sensitivity.
- Demonstrate firefighter professionalism and leadership in a diverse society.
- Provide culturally sensitive emergency service as it relates to Homeland Security and Disaster Preparedness.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, book and journal article reviews, written and oral reports, table top simulations, demonstrations, and audio and visual presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will detail the methods used to assess student performance and progress, as well as the criteria for the student’s final grade. Methods of assessment will include the following: examinations, quizzes, an interview assignment report, research papers, class participation, oral presentations and group activities.
Course Content (Themes, Concepts, Issues and Skills)
This course will address topics that include, but are not limited to:

- The changing fire department which is a microcosm of society.
- Multicultural representation in the fire service: recruitment, retention and promotion.
- Protected and non-protected class status, Civil rights Act, ADA, Sexual Harassment and EEOC.
- Male, female, sexual orientation, gay, lesbian, bisexual, and transgender issues.
- Communication and cross-cultural communication.
- Public safety contact with Asian/Pacific Americans.
- Public safety contact with African Americans.
- Public safety contact with European Americans.
- Public safety contact with Latino/Hispanic Americans.
- Public safety contact with Arab Americans and other Middle Eastern groups.
- Public safety contact with American Indians.
- Public safety contact with Class stratification, Homeless and Emotionally/Mentally Ill persons.
- Firefighter image and cultural sensitivity.
- Leadership, professionalism and using the CARE Approach (Compassionate, Attentive, Responsive and Eclectic) concept in problem solving strategies in a diverse workforce, society and environment.
- Firefighters’ role with Homeland Security and Disaster Preparedness.
Course Content and Outcome Guide for FP 211

Date: 14-SEP-2006
Posted by: Curriculum Office
Course Number: FP 211
Course Title: Bldg Constr for Firefighters
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Offers knowledge and skills in the various construction features of buildings. Includes structural features affecting fire spread and building collapse, the effect of fire on materials, fire stops and ratings. Use of blueprints and plans to understand building features and pre-fire planning emphasized. Prerequisite: FP 111.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #39-22. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, book and journal article reviews, written and oral reports, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
REQUIRED STUDENT COMPETENCIES:
A. Identify fire fighter safety concerns associated with various types of loads on buildings.
B. Describe the effects and consequences of fire on building materials, contents, structural members, and structural stability.
C. List the hazards and concerns associated with various types of construction and indicators of possible building collapse.
D. Describe the types of construction and the fire-related purposes for fire stops, draft curtains, and fire walls.
Course Content and Outcome Guide for FP 212

Date: 14-SEP-2006
Posted by: Curriculum Office
Course Number: FP 212
Course Title: Fire Invest (Cause Determine)
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies burning characteristics of combustibles. Interprets clues and burn patterns leading to point of origin. Identifies incendiary indications, sources of ignition and materials ignited and how to preserve the fire scene evidence. Prerequisite: FP 111.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #15-15 and #35-10. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, book and journal article reviews, written and oral reports, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
REQUIRED STUDENT COMPETENCIES:
1. Describe firefighter's responsibility in determining fire cause and origin, procedures for conducting preliminary interviews at the fire scene.
2. Demonstrate procedures for properly identifying, collecting, removing, and preserving evidence.
3. Describe necessary steps in preserving the fire scene until the investigation is complete and identify factors which may indicate an incendiary fire.
4. Identify reasons to conduct fire investigations and describe the fire department's responsibility with regard to fatal fires.
Course Content and Outcome Guide for FP 213

Date: 14-SEP-2006
Posted by: Curriculum Office
Course Number: FP 213
Course Title: Prin of Super for Firefighters
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies fire-line supervision. Future fire supervisors concentrate on the responsibilities of and opportunities for supervision, develop an understanding of human relations and study how to stimulate personal development of supervisory skills. Prerequisite: FP 111.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #35-13. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, book and journal article reviews, written and oral reports, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
REQUIRED STUDENT COMPETENCIES:
1. Describe the role of a company officer within the fire department and describe the typical organizational structure found in the fire service.
2. Describe how a group of individuals interact while working as a group and how leadership styles influence group behavior.
3. Describe the elements of management in an organization and demonstrate problem solving techniques and the counseling of individuals.
4. Identify elements of a typical fire department organization and how it relates to other agencies.
5. Demonstrate proper completion of required state and local fire department reports and forms.
6. Describe fire ground operations, strategy and tactics, and different attack modes.
Course Content and Outcome Guide for FP 214

Date: 05-SEP-2008
Posted by: Curriculum Office
Course Number: FP 214
Course Title: Occ. Safety & Health for Fire
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue.

Addendum to Course Description
This course is designed to give students an overview of the National Fire Protection Association (NFPA) 1500, Standard on Fire Department Occupational Safety and Health. The course covers methods of implementing, administering and evaluating a fire department occupational safety and health program, and documentation of the program. This course is required for an Associate Degree of Applied Science in Fire Protection. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
Completion of all training and education required to establish a fire department occupational safety and health program in an emergency service organization per NFPA 1500,

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, book and journal article reviews, written and oral reports, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, written and oral reports, simulations, classroom projects and presentations.

Course Content (Themes, Concepts, Issues and Skills)
Students will learn how to develop and administer an Occupational Safety and Health program that can be applied to the following fire department programs and activities:
1. Training, Education and Professional Development
2. Fire Apparatus, Equipment and Drivers/Operators
3. Protective Clothing and Protective Equipment
4. Emergency Operations
5. Facility Safety
6. Medical and Physical Requirement
7. Member Assistance and Wellness Programs
8. Critical Incident Stress Programs
Course Content and Outcome Guide for FP 215

Date: 15-OCT-2007  
Posted by: Curriculum Office  
Course Number: FP 215  
Course Title: Urban Interface Fire Operation  
Credit Hours: 3  
Lecture hours: 30  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee: 

Course Description  
Studies strategies for fire attack, action plans, tactics, structural triage, action plan assessment, public relations and safety precautions used in wildland fires during urban interface operations. Practices the sizing up and operational procedures required to operate as initial command on urban interface fires. Prerequisite: FP 133.

Addendum to Course Description  

Intended Outcomes for the course  

1.0 Size Up  
To provide students with basic knowledge to provide critical information to make proper decisions and take appropriate action on Urban Interface Fires.  
- List those items to be considered in sizing-up an interface fire incident, prior to and after arriving at the scene.  
- List those items to consider in evaluating the types and limitations of resources needed.  
- List those items that should be included in a size up report.

2.0  
To provide students with the basic knowledge to correctly interpret the size up factors and quickly recognize the interface potential.  
- List the three priorities when establishing strategic goals.  
- State the three operational modes.  
- List five items which would influence your resource order.  
- List four subject areas to consider when briefing and deploying your resources.

3.0 Structure Triage  
Describe to the students the information necessary to determine the proper sorting and prioritizing of structures requiring protection from wild fire.  
- List the three structural triage categories.  
- List five basic factors upon which you base your triage decisions and give three examples of each.  
- List four examples which may mean the situation is hopeless.
4.0 Tactics

To provide the student with the ability to successfully defend structures in a wild land fire by using different types of equipment, personal as well as different types of tactics to accomplish their goal.

- List four operations you should accomplish upon your arrival at the incident or assigned area and describe their importance to your fire fighting actions.
- Describe how to prepare structures and the surrounding area to minimize damage.
- Describe fire fighting methods employed to defend threatened structures from fire.

5.0 Action Plan Assessment

To provide students with the information necessary to assess the effectiveness of their actions and to develop and update their action plan.

- List the items that need to be considered in assessing the effectiveness of an action plan.
- Given an action plan and scenario, demonstrate your ability to properly update the action plan when the scenario changes.

6.0 Follow Up and Public Relations

To provide students with the information so they may determine when it is safe to leave an area after the fire or heat wave has passed and how to effectively deal with the public in these situations.

- List several steps that should be completed before leaving an area involved in an interface fire.
- List several important factors in dealing with the public at an interface fire.
- Explain the importance of an organized demobilization plan.
- List five tasks to accomplish after the fire has passed, to abate any lingering threat.
- Describe how you can minimize and protect against damage to private and public property.
- Describe your respectabilities related to post incident management.
- Describe your respectabilities relating to demobilization of an interface incident.

7.0 Safety

Describe to the students additional important safety items to be concerned with, during fire control operations in the urban interface.

- Describe twelve general safety consideration often encountered in interface operations.
- List the structural situations that should "WATCH OUT"
- List seven don'ts when working around power lines.

Course Activities and Design

The course will be presented in a series of lectures presented in a classroom atmosphere.

Outcome Assessment Strategies

The instructor will be required to discuss evaluation at the beginning of the course based upon the course syllabus issued to the student.

Course Content (Themes, Concepts, Issues and Skills)

- Basic understanding in the fire ground operations of the I.C.S.
- Basic understanding of wildland fire control operations.
- Basic understanding of structural fire control operations.
Course Content and Outcome Guide for FP 231

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 231
Course Title: Aircraft Crash Rescue Practice
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies current techniques of aircraft firefighting and rescue, principles associated with aircraft design and mock situations involving varieties of aircraft disasters. Prerequisite: FP 111.

Addendum to Course Description
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #35-13. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- Describe the role of a company officer within the fire department and describe the typical organizational structure found in the fire service.
- Describe how a group of individuals interact while working as a group and how leadership styles influence group behavior.
- Describe the elements of management in an organization and demonstrate problem solving techniques and the counseling of individuals.
- Identify elements of a typical fire department organization and how it relates to other agencies.
- Demonstrate proper completion of required state and local fire department reports and forms.
- Describe fire ground operations, strategy and tactics, and different attack modes.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and discussion format. Other instructional methods including guest speakers, research papers, book and journal article reviews, written and oral reports, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, and classroom participation.
Course Content (Themes, Concepts, Issues and Skills)

- Describe the role of a company officer within the fire department and describe the typical organizational structure found in the fire service.
- Describe how a group of individuals interact while working as a group and how leadership styles influence group behavior.
- Describe the elements of management in an organization and demonstrate problem solving techniques and the counseling of individuals.
- Identify elements of a typical fire department organization and how it relates to other agencies.
- Demonstrate proper completion of required state and local fire department reports and forms.
- Describe fire ground operations, strategy and tactics, and different attack modes.
Course Content and Outcome Guide for FP 232

Date: 17-AUG-2010  
Posted by: Curriculum Office  
Course Number: FP 232  
Course Title: Fire App Driver/Operator II  
Credit Hours: 2  
Lecture hours: 10  
Lecture/Lab hours: 20  
Lab hours: 0  
Special Fee: $6

Course Description
Fire Apparatus Driver/Operator II Covers practical procedures, techniques, and safety precautions used during apparatus operations. Includes the history and development of fire apparatus capabilities, pump construction, procedures for operation and hydraulic formulas used to calculate flow requirements. Knowledge and skills acquired during classroom instruction will be applied in drill ground operations. Prerequisite: FP 200.

Addendum to Course Description
This course fulfills the requirements for the Fire Standards and Accreditation Board subjects for Apparatus Operator II (26-01), (26-02), and (26-03). This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and practical application format. Other instructional methods including guest speakers, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
- Describe Different types of pump construction, principles of pump design, operation, capabilities, power transfer, water supply, and procedures for trouble shooting to correct operational problems.
- Define terminology used in fire service hydraulics and demonstrate written and field hydraulic formula calculations.
- Demonstrate procedures for pumping with fire service apparatus during multi-engine operations and identify apparatus gauges and control devices.
- Demonstrate hydraulic calculations involving multiply supply lines, operational lines, appliances, water sources, and friction loss factors.
- Demonstrate and describe operational techniques and driving techniques under varying weather and emergency conditions.
- Demonstrate and describe various defensive driving techniques and describe current legal statues that regulate the operation of emergency vehicles.
- Demonstrate the use of maintenance schedules, reports, and corrective measures and vehicle care.
Course Content and Outcome Guide for FP 233

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 233
Course Title: Aerial Ladder Oper for Frfghtr
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies the concepts of aerial ladder operation and becomes familiar with equipment used in construction, operation and maintenance. Situations involving field use, deployment and operation of equipment are explored. Prerequisite: FP 132.

Addendum to Course Description
This course fulfills the requirements for the Fire Standards and Accreditation Board subjects for Apparatus Operator III #36-01 and is acceptable as an elective credit for an A.S. degree in Fire Science. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- Perform routine maintenance inspection, testing, and servicing of aerial apparatus.
- Demonstrate procedures for normal and emergency operations of aerial apparatus.
- Describe manufacture's safety system specification and safe operational limits of aerial apparatus.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration and practical application format. Other instructional methods including guest speakers, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
- Perform routine maintenance inspection, testing, and servicing of aerial apparatus.
- Demonstrate procedures for normal and emergency operations of aerial apparatus.
- Describe manufacture's safety system specification and safe operational limits of aerial apparatus.
Course Content and Outcome Guide for FP 240

Date: 14-SEP-2006
Posted by: Curriculum Office
Course Number: FP 240
Course Title: Emergency Serv Instructor I
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee: $6

Course Description
Designed to meet NFPA Standard 1041: Fire and Emergency Services Instructor I. Students will organize classroom, laboratory and outdoor learning environments and present prepared lessons utilizing recognized methods of instruction. Learn to adjust and modify presentations based on student learning styles and changing classroom environments and learn about course objectives and learning outcomes.

Addendum to Course Description
This course is designed to meet NFPA 1041 requirements for Fire & Emergency Service Instructor I.

Intended Outcomes for the course
A. Function safely in the classroom and drill ground training environment.
B. Demonstrate professional work habits and ethics.
C. Gain knowledge and skills in the problem solving process for delivery of fire department training.
D. Develop skills in the delivery and documentation of fire department training events.
E. Develop skills in the use of instructional tools.
F. Demonstrate the ability to deliver quality training.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, research papers, simulations and student presentations will also be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, projects, research papers and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
A. Program Management: Demonstrate the management of basic resources, records and reports required for instructional documentation.
B. Instructional Development: Demonstrate ability to review prepared instructional materials and adapt material and resources to a given target audience and learning environment.
C. Instructional Delivery: Organize a classroom, laboratory or outdoor learning environment so that lighting, distractions, climate control or weather, noise control, seating, audiovisual equipment, teaching aids and safety are considered.
D. Present prepared lessons utilizing specified and recognized methods; adjust presentations to changing conditions in the classroom environment, differences in learning styles, abilities and behaviors.
E. Evaluation and Testing: Administer oral, written and performance tests. Grade results of testing and report test results as required by department policy and/or State Certification.
F. Provide timely evaluation feedback to students that is objective, clear, relevant and specific enough for the student to make efforts to modify behavior.
Course Content and Outcome Guide for FP 242

Date: 14-SEP-2006  
Posted by: Curriculum Office  
Course Number: FP 242  
Course Title: Flammable Explo & Toxic Mat  
Credit Hours: 3  
Lecture hours: 30  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee:

Course Description  
Studies electrical exotic metal fires and space age fuel fires; how to handle radioactive materials involved in fire, the use of monitoring equipment and personnel safety practices. Prerequisite: FP 123.

Addendum to Course Description  
This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects for #25-09. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course

Course Activities and Design  
The material in this course will be presented in a lecture, demonstration and practical application format. Other instructional methods including guest speakers, demonstrations, simulations, and presentations may be employed.

Outcome Assessment Strategies  
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, research papers, demonstrations, and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)

REQUIRED STUDENT COMPETENCIES:  
A. Identify common flammable liquids, their properties and emergency procedures for incidents involving flammable liquids.  
B. Describe conditions associated with flammable and combustible gases and liquids that might lead to a BLEVE situation.  
C. Identify common flammable gases, their properties and emergency procedures for incidents involving flammable gases.  
D. Identify liquefied and cryogenic gas properties and describe emergency response procedures.  
E. Identify common flammable solids, their properties and emergency procedures for incidents involving dangerous-when-wet materials.  
F. Identify common acids, bases, and halogens, their properties and describe emergency response procedures.  
G. Identify toxicological properties of common products of combustion.  
H. Identify characteristics, properties, and emergency response procedures to incidents involving explosives, rocket fuel, and radioactive materials.  
I. Identify characteristics, properties, and emergency response procedures for organic peroxides, plastics, and oxidizers.
Course Content and Outcome Guide for FP 243

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 243
Course Title: Laws Affecting Fire Fighting
Credit Hours: 1
Lecture hours: 10
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Covers various federal, state and local statutes, codes and ordinances that have a bearing on firefighters. Personal and organizational responsibilities will be covered. Equal employment opportunity, operation of emergency vehicles and fire codes are included.

Addendum to Course Description
This course may be used as an elective towards an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects #35-12. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- Define basic legal terms.
- Explain how Oregon tort laws, inspection and fire investigation laws, and Oregon revised statutes relate to the fire service.
- Describe the purpose of fire and building codes, laws relating to emergency vehicle operation, and laws relating to employment rights.

Course Activities and Design
The material in this course will be presented in a lecture and conference format. Other instructional methods including guest speakers, research papers, simulations and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, research papers, written and oral reports, and classroom presentations.

Course Content (Themes, Concepts, Issues and Skills)
- Define basic legal terms.
- Explain how Oregon tort laws, inspection and fire investigation laws, and Oregon revised statutes relate to the fire service.
- Describe the purpose of fire and building codes, laws relating to emergency vehicle operation, and laws relating to employment rights.
Course Content and Outcome Guide for FP 250

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 250
Course Title: Emergency Serv Instructor II
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 10
Special Fee: $6

Course Description
Designed to meet NFPA Standard 1041; Fire and Emergency Services Instructor II. Learn to manage instructional resources, staff, facilities, records and reports; develop instructional materials; conduct specialized and advanced training; develop evaluation instruments to support instruction and the evaluation of test results. Prerequisite: FP 240 or equivalent.

Addendum to Course Description
This course is designed to meet NFPA 1041 requirements for Fire & Emergency Service Instructor II.

Intended Outcomes for the course
- Function safely in the classroom and drill ground training environment.
- Demonstrate professional work habits and ethics.
- Gain knowledge and skills in the problem solving process for delivery of fire department training.
- Develop skills in the development, delivery and evaluation of fire department training events.
- Develop skills in creating and using evaluation and testing instruments.
- Demonstrate the ability to develop and deliver quality training.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, research papers, simulations and student presentations will also be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, projects, research papers and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
Program Management: Schedule instructional sessions; formulate budget needs; acquire training resources; coordinate training records keeping; evaluate instruction.

Instructional Development: Create lesson plans, learning objectives, lesson outlines; develop course materials, instructional aids and evaluation plans; modify existing lesson plans.

Instructional Delivery: Conduct class utilizing a lesson plan developed by the individual; adjust presentations to changing conditions in the classroom environment, differences in learning styles, abilities and behaviors; supervise other instruction and students during specialized and advanced high risk training activities.

Evaluation and Testing: Develop student evaluation instruments and administer oral, written and performance tests; develop course evaluation instrument that addresses instructional methodology, communication techniques, learning environment, course content and student materials; Analyze student evaluation instruments for validity.
Course Content and Outcome Guide for FP 252

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 252
Course Title: High Angle Rescue I
Credit Hours: 3
Lecture hours: 20
Lecture/Lab hours: 0
Lab hours: 20
Special Fee: $6

Course Description
Offers knowledge and skills to select, maintain, inspect and use basic high angle rescue equipment. Hands-on experience helps the student develop confidence in high angle rescue techniques, an appreciation for safety considerations used and provides a good foundation for continuation training. Prerequisite: FP 201.

Addendum to Course Description
This course may be used as an elective towards an Associate Degree of Applied Science in Fire. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- Demonstrate proper care, maintenance, and inspection of high angle rescue equipment.
- Demonstrate proper selection, calculations and set up for appropriate mechanical advantage.
- Describe the importance of mechanics, logistics and team work involved in raising and lower victims and rescuers.

Course Activities and Design
The material in this course will be presented in a lecture and practical application. Other instructional methods including guest speakers, demonstrations, simulations and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, research papers, simulations, demonstrations, written and oral reports, and classroom presentations.

Course Content (Themes, Concepts, Issues and Skills)
- Demonstrate proper care, maintenance, and inspection of high angle rescue equipment.
- Demonstrate proper selection, calculations and set up for appropriate mechanical advantage.
- Describe the importance of mechanics, logistics and team work involved in raising and lower victims and rescuers.
Course Content and Outcome Guide for FP 260

Date: 14-SEP-2006
Posted by: Curriculum Office
Course Number: FP 260
Course Title: Emergency Serv Instructor III
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee: $6

Course Description
Learn to administer agency policies and procedures for the management of instructional resources, staff, facilities, records and reports; plan, develop and implement comprehensive fire training programs and curriculum; develop evaluation plans, collect, analyze and report data and utilize data for program validation and student feedback. Prerequisites: FP 240 and 250 or equivalent.

Addendum to Course Description
This course is designed to meet NFPA 1041 requirements for Fire & Emergency Service Instructor III.

Intended Outcomes for the course
A. Safely administer agency policy and procedures for fire training programs.
B. Demonstrate professional work habits and ethics.
C. Gain knowledge and skills in the problem solving process for delivery of fire department training.
D. Develop skills in the administration, management, development, delivery and evaluation of fire department training programs and events.
E. Develop data analysis skills for creating programs and using evaluation and testing instruments for program improvements and growth.
F. Demonstrate the ability to administer, manage, develop and deliver quality training programs.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, research papers, simulations and student presentations will also be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, projects, research papers and classroom participation.

Course Content (Themes, Concepts, Issues and Skills)
A. Program Management: Administer training record systems; develop recommendations for training program policies; identify instructional and organizational qualities for training staff; write equipment purchasing specifications; present evaluation findings, conclusions and recommendations.
B. Instructional Development: Conduct agency needs assessment, design programs and curriculum based on needs assessment that are performance based and utilize recognized adult learning principles.
C. Evaluation and Testing: Develop program evaluation plan utilizing data from analysis of evaluation instruments including, oral, written and performance tests and course evaluation instruments that addresses instructional methodology, communication techniques, learning environment, course content and student materials; Analyze program evaluation instruments for validity; develop a system for acquisition, storage, and dissemination of evaluation results consistent with agency policies, federal, state and local laws.
Course Content and Outcome Guide for FP 262

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 262
Course Title: Water Rescue for Emer Serv
Credit Hours: 3
Lecture hours: 20
Lecture/Lab hours: 20
Lab hours: 0
Special Fee: $6

Course Description
Studies practical procedures, techniques, and safety precautions utilized by rescue personnel during water rescue response. Covers organization of a water rescue team, equipment requirements, scene evaluation and rescuer drown-proofing will be covered. Victim retrieval, rescue swimming and search techniques will be practiced. Prerequisite: FP 201.

Addendum to Course Description

Intended Outcomes for the course

1.0 Orientation To Water Rescue Concepts

Instructional Goal: To provide the water rescue first responder with an understanding of safety precautions, requirements, and practical decision making information regarding water rescue.

1.1 The individual shall describe safety procedures utilized while working around water hazards.
1.2 The individual shall describe personnel and equipment requirements for successful water rescue response.
1.3 The individual shall describe the difference between water rescue and dive rescue.
1.4 The individual shall describe the effects of hypothermia on the victim and the rescuer.
1.5 The individual shall describe water rescue and dive rescue team organization.

2.0 Scene Evaluation And Witness Interview

Instructional Goal: The goal is for individuals to understand why and how to gather critical information through scene evaluation and witness interview.

Objectives:
2.1 The individual shall describe and demonstrate the scene evaluation process.
2.2 The individual shall describe witness interview procedures and the information that is critical.
2.3 The individual shall demonstrate decision making utilizing the risk vs benefit approach.
2.4 The individual shall describe the systematic approach utilizing information from the scene evaluation and witness interview.
2.5 The individual shall describe triangulation and identify a last known point.
3.0 Working and Utilizing Tools Around A Water Hazard

Instructional Goal: The goal is for the individual to operate around a water hazard utilizing safety precautions while performing non-swimmer rescue techniques.

Objectives:
3.1 Individual shall demonstrate rescuer drown-proofing techniques.
3.2 Individual shall demonstrate proper utilization of the following water rescue equipment:
   3.2.1 Pike pole
   3.2.2 Throw bag
   3.2.3 Inflated fire hose
   3.2.4 Personal flotation device
3.3 Individual shall demonstrate the proper methods to remove a victim from the water to a beach, dock and boat
3.4 Individual shall describe actions that will prepare the scene for dive rescue team arrival and tasks that will assist the team during dive operations.

Course Activities and Design
This course will be presented in the classroom during lecture and utilize a pool facility for lab portion of course. Students will receive practical training at a lake and a river during the course.

Outcome Assessment Strategies
The instructor will be required to discuss evaluation at the beginning of the course based upon the course syllabus issued to the student.

Course Content (Themes, Concepts, Issues and Skills)
Intermediate swimming capabilities are recommended but are not required. Students may attend the course to gain knowledge of water rescue support functions and command procedures.
Course Content and Outcome Guide for FP 280A

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 280A
Course Title: CE: Fire Science
Credit Hours: 3
Lecture hours: 0
Lecture/Lab hours: 0
Lab hours: 0
Special Fee: $0

Course Description
Field placement in a municipal fire department as a fire intern, volunteer firefighter or cadet/explorer. Students are evaluated by a PCC field representative from Cooperative Education. Department permission required.

Addendum to Course Description

Intended Outcomes for the course
1.0 The Work Environment

Instructional Goals: To have an understanding of the operation of the assigned fire department and "fit into" their operations.

1.1 Students become familiar with the fire departments policies and operating procedures.
1.2 Students participate in fire department training activities.
1.3 Students develop an understanding of the type of fire service apparatus used by the department and gain practical experience working with it.
1.4 Students learn the type, location and operation of fire service equipment used by the department, and gain practical experience working with it.
1.5 Students should become involved in routine duties and activities performed by fire service personnel.

2.0 Personal Attributes

Instructional Goals: To provide each student the opportunity to develop personal attitudes and attributes that can be used to present themselves to future employers.

2.1 Students learn to present a professional personal appearance.
2.1.1 Dress is appropriate for job setting
2.1.2 Exhibits cleanliness and good hygiene
2.2 Students develop good attendance habits.
2.2.1 Reports to work on time and ready to work
2.2.2 Alerts supervisor if absent or tardy
2.2.3 Plans ahead to cover work schedule conflicts
2.2.4 Makes proper use or work time (not leaving early or extending breaks)
2.3 Students develop personal attitudes in a work environment.
2.3.1 Enjoys work, keeps busy, looks for work to do
2.3.2 Looks for ways to improve self, is alert for ways to improve
2.3.3 Conducts self in a professional manner, exhibits businesslike habits.
3.0 Interpersonal Skills

Instructional Goals: To give the student an environment where they can evaluate their interpersonal skills and with coaching available from the Instructor, areas of improvement can be identified.

3.1 Students learn to demonstrate good followership skills toward superiors.
   3.1.1 Is respectful
   3.1.2 Is accepting of constructive criticism
   3.1.3 Is ambitious—does not require close supervision
   3.1.4 Is willing to place personal desire aside for the benefit of the group, when needs be

3.2 Students demonstrate the ability to work with their peers, showing good teamwork skills.
   3.2.1 Is respectful of the rights and needs of others
   3.2.2 Is willing to provide assistance without being told or asked by others.
   3.2.3 Is safety conscious when working around others.

3.3 Students provide a professional image and a desire to be helpful toward the public/customers.
   3.3.1 Courteous, shows respect toward the public
   3.3.2 Considers how others may perceive their actions
   3.3.3 Mindful of how to help others.

4.0 Technical Capabilities

Instructional Goals: To provide an environment where the student can combine knowledge and skills learned in the classroom and provide them the opportunity to apply, evaluate, and modify them in a dynamic work environment.

4.1 Students are able to demonstrate adequate knowledge and skills learned in the classroom, and are able to do so without close supervision.
4.2 Students are able to demonstrate adaptability in applying their learned skills and desire to improve their understanding of the job and their responsibilities.
4.3 Students demonstrate the quality of work that is consistent with an employer’s expectations.
   4.3.1 Able to understand and follow directions.
   4.3.2 Accurate and careful in their work—asking questions when needed.
   4.3.3 Completes assigned tasks in appropriate timeliness
   4.3.4 Demonstrates safety and care toward equipment
   4.3.5 Is adaptable to changing and varies work conditions
   4.3.6 Is proactive toward solving—looks ahead in order to avert problem areas.

Course Activities and Design
This course is presented as twelve lab hours per week and carries three credit hours toward an Associate of Applied Science in Fire Protection Technology and is a core requirement for this degree. This course is designed to provide a "real world" work environment for the application and testing of academically developed skills and knowledge in order to build self confidence.

Outcome Assessment Strategies
The evaluation process will include an employer evaluation and a Fire Science Department evaluation designed to measure competency in those areas covered in the learning objectives. In all cases, this evaluation shall meet Academic Standards.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 283

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 283
Course Title: Pub Sec Employ Wrkshp (Fire)
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Provides the opportunity to develop skills needed to successfully complete Civil Service and Public Sector employment examinations.

Addendum to Course Description
This course may be used as an elective towards an Associate Degree of Applied Science in Fire. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- Describe the individual steps in a typical fire department entrance exam process.
- Describe preparation techniques for written exams, physical agility tests, psychological examinations and oral interviews.
- Demonstrate proper procedures for completing job applications, resumes, and cover letters.
- Describe methods to reduce test anxiety, improve study skills, and how to do a self analysis and evaluation.
- Participate in selected physical activities similar to those administered by police and fire departments.

Course Activities and Design
The material in this course will be presented in a lecture, conference, and practical application format. Other instructional methods including guest speakers, video and audio taping, demonstrations, simulations and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, research papers, simulations, demonstrations, written and oral reports, and classroom presentations.

Course Content (Themes, Concepts, Issues and Skills)
- Describe the individual steps in a typical fire department entrance exam process.
- Describe preparation techniques for written exams, physical agility tests, psychological examinations and oral interviews.
- Demonstrate proper procedures for completing job applications, resumes, and cover letters.
- Describe methods to reduce test anxiety, improve study skills, and how to do a self analysis and evaluation.
- Participate in selected physical activities similar to those administered by police and fire departments.
Course Content and Outcome Guide for FP 293

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 293
Course Title: Adv Firefighting Tac & Strat
Credit Hours: 1
Lecture hours: 10
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies response and size-up, fire-ground tactics and analysis, post-mortem, pre-fire survey and planning, combined operations, mutual aid, disaster planning and problems in unusual fire operations. Prerequisite: FP 203A.

Addendum to Course Description

Intended Outcomes for the course
1.0 Pre-Fire Planning
Instructional Goals: Given a target hazard occupancy, the student will be able to develop a pre-fire plan and explain its importance.

1.1 Students will demonstrate knowledge in building construction types and occupancy classifications.
1.2 Students will demonstrate an understanding of pre-incident resource identification.
1.2.1 Initial response equipment
1.2.2 Special resource requirements, i.e.; Haz-Mat Units
1.2.3 Estimated fire flow requirements
1.3 Students will develop a pre-fire plan of a target hazard occupancy.
1.3.1 Expected fire behavior
1.3.2 Anticipated hazards by type of occupancy
1.3.3 Develop strategy
1.3.4 Develop contingency plans for anticipated problems
1.4 Students will describe what effect fire has on building stability given various construction types.
1.5 Students will describe the influence building construction has on fire behavior.

2.0 Incident Strategy
Instructional Goals: To have an in-depth knowledge of Incident Strategy development and implementation.

2.1 Students will demonstrate a thorough knowledge of incident strategy components and how they inter-relate.
2.1.1 Goals
2.1.2 Objectives
2.1.3 Tasks
2.2 Students will develop an emergency operational action plan when given a target hazard occupancy simulation.
2.3 Students will develop alternate plans to show preparedness when dealing with a dynamic emergency scene.
2.4 Students will develop and explain three strategic purposes for ventilation.
2.4.1 Life safety/rescue operations
2.4.2 Assisting in fire attack/heat removal
2.4.3 Salvage operations/property conservation
3.0 Incident Command Structure

Instructional Goals: To demonstrate knowledge and skill in working within the operations area of the incident command system.

3.1 Students will explain the function and responsibilities of leadership roles assigned within the operations section of the Incident Command System.
3.1.1 Division/group supervisor
3.1.2 Strike team leader
3.1.3 Task force leader
3.1.4 Crew leader

4.0 Emergency Scene Operations

Instructional Goals: Given a simulated fire situation, the student will develop and implement an Incident Command System.

4.1 Students will explain and identify fire ground factors which influence emergency scene size-up.
4.1.1 Structural fire operations
4.1.2 Wildland/forest fire operations
4.2 Students will describe emergency scene management procedures required to confine, control and extinguish a fire.
4.2.1 Structural fire
4.2.2 Wildland/forest fire
4.2.3 Flammable liquid fire
4.3 Students will describe and explain initial fire hoseline placements.
4.3.1 Structural fire
4.3.2 Wildland/forest fire

Course Activities and Design
This course is presented in a seminar format. It will include sixteen hours and carry one credit hour. This course is developed to fulfill Oregon Fire Standards and Accreditation Board Standard #34-14 for Firefighter II and III. It may be applied as elective credit toward an Associate of Applied Science in Fire Protection Technology.

Outcome Assessment Strategies
The instructor is required to discuss evaluation at the beginning of the course based on a course syllabus issued to the student. In all cases the evaluation shall meet the standards as outlined by Oregon Bureau of Public Safety Training and Standards, as well as Academic Standards.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 9010

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9010
Course Title: Fire Management Practices
Credit Hours: 1
Lecture hours: 10
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Outlines basic management skills for the mid-level manager. Includes organizational structure, communicating, financial management and controlling resources. Prerequisite: FP 213.

Addendum to Course Description

Intended Outcomes for the course
1.0 Organization and Structure

Instructional Goal: The goal is to inform the student of the methods communities organize for fire protection.

Objectives:
1.1 Describe three ways which fire departments can be organized.
1.2 Describe how fire protection services fit into local government.
1.3 Define "line" and "staff" describe the functions and responsibilities of each, and describe the relationships that exist between the two types of personnel.

2.0 Communicating Techniques

Instructional Goal: The goal is to understand the theory of communicating and to learn techniques for exchanging information.

Objectives:
2.1 identify the five elements of a communication process.
2.2 Describe five examples of formal communications.

3.0 Financial Management

Instructional Goal: the goal is to give the student an overview of the budget process.

Objectives:
3.1 Identify the following elements of a jurisdiction's financial management system:
3.1.1 What sources of income are utilized?
3.1.2 Who develops the budget?
3.1.3 Who has the input to the budget?
3.1.4 Who manages the budget?
3.2 Explain the theory of budgeting
3.3 Describe the methods available to control expenditures.
4.0 Resources Management and Responsibilities

Instructional Goal: The goal is to help the student understand the principles of human and other resource management.

Objectives:
4.1 Identify the following activities that are part of personnel administration and who is responsible for each:
4.1.1 Organizing for personnel management.
4.1.2 Equal opportunity and affirmative action.
4.1.3 Recruiting techniques
4.1.4 Selection processes
4.1.5 Performance appraisal
4.1.6 Personnel development
4.2 Describe how to determine equipment and staffing needs for an identified response area.
4.3 Given the description of a fire service company, develop a one day schedule of activities.

Course Activities and Design
This course will be presented as a lecture/conference in the classroom. It is designed for the working firefighter.

Outcome Assessment Strategies
The instructor will discuss evaluation procedures based upon the course syllabus issued to the students.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 9020

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9020
Course Title: Fire Department Budgets
Credit Hours: 1
Lecture hours: 10
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Outlines the budget process as required by Oregon laws to include types of budgets, the process of preparing the budget and classifying expenditures. Prerequisite: FP 213.

Addendum to Course Description

Intended Outcomes for the course
1.0 Types of Budgets

Instructional Goal: The goal is to understand the common types of budgeting systems used by fire agencies.

Objectives:
1. Define "budget" and identify five types of budgets and how policy and budget interface.
1.1 Lump sum budget
1.2 Line item budget
1.3 Performance budget
1.4 Program budget
1.5 Zero-based budgeting
1.6 Integrative budget system
1.7 Planning Programming Budgeting system.

2.0 Funding Sources and Competition

Instructional Goal: The goal is to recognize the source of funds available for supporting the fire service.

Objectives:
2. Identify three common sources of funding for fire departments
2.1 Levy within the tax base
2.2 One year levy
2.3 Serial levy
2.4 Debt service levy
2.5 Continuing levy
2.6 Identify the entities with which the fire department must compete for funds within the local jurisdiction.
3.0 Budget Preparation Procedures

Instructional Goal: The goal is to understand the process of preparing the budget document.

Objectives:
3.1 List the steps involved in the preparation and adoption of the budget for the local jurisdiction.
3.2 Describe the procedures which can be used to control and report the budget and analyze expenditures.
3.2.1 Traditional Controls
3.2.2 Behavioral Controls
3.2.3 Statistical Analysis

4.0 Classification of Expenditures and Budget Types

Instructional Goal: The goal is to examine the different types of expenditures within a budget.

Objectives:
4.1 Identify items which would be included in each of the following classes of expenditures:
4.1.1 Personal services.
4.1.2 Contractual services
4.1.3 Commodities
4.1.4 Capital outlay
4.1.5 Other expenses.
4.2 Define the following terms:
4.2.1 Replacement cost
4.2.2 Depreciation
4.2.3 Service level trends
4.2.4 Fixed Asset
4.3 Identify the similarities and differences among the following:
4.3.1 Annual budget
4.3.2 Long term operating budget
4.3.3 Capital improvement program

Course Activities and Design
This course will be presented as a lecture/conference in the classroom. It is designed for the working firefighter.

Outcome Assessment Strategies
The instructor will discuss evaluation procedures based upon the course syllabus issued to the students.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 9030

Date: 30-MAY-2007  
Posted by: Curriculum Office  
Course Number: FP 9030  
Course Title: Planning Fire Protection  
Credit Hours: 1  
Lecture hours: 10  
Lecture/Lab hours: 0  
Lab hours: 0  
Special Fee:

Course Description
Covers the elements that are considered when planning for fire protection needs of a community. The techniques of risk analysis and problem solving are used. Prerequisite: FP 213.

Addendum to Course Description
This course can be used as an elective toward an Associate Degree of Applied Science in Fire Protection Technology.

Intended Outcomes for the course
- Students will demonstrate an understanding of the principles of fire department hydraulics.
- Describe and determine water tanks and hose capacity.
- Describe types and capacities of water systems and distribution systems. Describe emergency water supply provisions, fire flow tests and utilize water supply map.
- Describe fire stream tactics for solid, and nonsolid fire streams, fixed and variable flow nozzles, determine velocity of flow, nozzle reaction and water hammer affects.
- Describe discharge formulas, estimate the flow from a hydrant, compare nozzle pressures and tip sizes, sprinkler discharge and equivalent nozzle diameters.
- Understand friction loss principles and rules and utilize friction loss formulas.
- Determine required pump discharge pressure, calculate pump discharge problems including ground level, elevation, equal and unequal hose lengths, siamese and wyed supply hose and master stream operations.
- Describe pump capacity, cavitation, principles and procedures and requirements for drafting operations.
- Describe factors to be considered in relay operations, small-quantity and large-quantity operations, adjusting relay plan and operational considerations for relay pumping.
- Determine required pump discharge pressures for 1”, 1¼” and 2½” handheld lines, fog nozzles, master streams, initial pressures and uphill and downhill hose lays.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, research papers, simulations and student presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, projects, research papers and classroom participation.
Course Content (Themes, Concepts, Issues and Skills)

- Students will demonstrate an understanding of the principles of fire department hydraulics.
- Describe and determine water tanks and hose capacity.
- Describe types and capacities of water systems and distribution systems. Describe emergency water supply provisions, fire flow tests and utilize water supply map.
- Describe fire stream tactics for solid, and nonsolid fire streams, fixed and variable flow nozzles, determine velocity of flow, nozzle reaction and water hammer affects.
- Describe discharge formulas, estimate the flow from a hydrant, compare nozzle pressures and tip sizes, sprinkler discharge and equivalent nozzle diameters.
- Understand friction loss principles and rules and utilize friction loss formulas.
- Determine required pump discharge pressure, calculate pump discharge problems including ground level, elevation, equal and unequal hose lengths, siamese and wyed supply hose and master stream operations.
- Describe pump capacity, cavitation, principles and procedures and requirements for drafting operations.
- Describe factors to be considered in relay operations, small-quantity and large-quantity operations, adjusting relay plan and operational considerations for relay pumping.
- Determine required pump discharge pressures for 1”, 1¾” and 2½” handheld lines, fog nozzles, master streams, initial pressures and uphill and downhill hose lays.
Course Content and Outcome Guide for FP 9040

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9040
Course Title: Managing Fire Personnel
Credit Hours: 1
Lecture hours: 10
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Covers the appointment/promotional process to include desirable traits of personnel. Discusses motivation and counseling as well as the legal responsibilities of management and utilization of employees. Prerequisite: FP 213.

Addendum to Course Description

Intended Outcomes for the course
1.0 Qualities of Personnel and Recruiting

Instructional Goal: The goal is to describe the physical, mental and emotional traits that are desirable in the fire service. This goal will include the process of recruiting, maintaining and selecting personnel for the various activities of the fire service.

Objectives:
1.1 Identify desired qualifications of fire service personnel (paid and volunteer).
1.2 Describe the recruiting/promotional processes which include the following:
1.2.1 Minimum qualifications for the position
1.2.2 Duties and tasks to be performed
1.2.3 Description of the working environment
1.2.4 Projected pay and benefits
1.2.5 Selection

2.0 Motivation and Counseling

Instructional Goal: The instructional goal is to insure the student understands the factors that motivate an employee and how a system of counseling benefits both the employer and the employee.

Objectives:
2.1 Describe the impact each of the following has on retention of employees:
2.2.1 Job satisfaction
2.2.2 Pay/benefits
2.2.3 Rewards/recognition
2.2.4 Training
2.3 Explain the purpose of performance reviews and describe the procedure involved.
2.4 Identify the types of disciplinary action which can be used and describe the legal processes which need to be followed during their use.
2.5 Identify factors which would motivate an individual to remain with an organization.
3.0 Legal Requirements of Management

Instructional Goal: The goal is to review the various laws that govern the relationship between the department and its employees. Also the responsibility and methods for training.

Objectives:
3.1 Describe elements which are part of labor-management relations, affirmative action, civil rights, contract negotiations/administration, equal employment opportunity, etc.
3.2 Describe management's role in training and identify the components of a quality training program.
3.3 Describe management’s role with regard to employee health and safety.

4.0 Management Techniques

Instructional Goal: The goal is to have the student consider organizational and leadership needs during emergency and routine activities.

Objectives:
4.1 Describe how to best utilize personnel resources in the following situations:
4.1.1 Efficient operation of the engine house
4.1.2 Fireground operations

Course Activities and Design
This course will be presented in the classroom as a lecture conference. It is designed for the working firefighter.

Outcome Assessment Strategies
The instructor will discuss evaluation procedures based upon the course syllabus issued to the students.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 9050

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9050
Course Title: Public Rel Information & Ed
Credit Hours: 1
Lecture hours: 10
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Covers company officer responsibilities for a basic understanding of public relations, information and fire education. Designed to offer a brief overview of these topics. Prerequisite: FP 213.

Addendum to Course Description

Intended Outcomes for the course
1.0 Course Overview

Instructional Goal: The goal of this section is to clarify the terminology that describes the communication activities between fire personnel and the public.

Objectives:
1.1 Describe the differences between public relations, public information, and public education.
1.2 Differentiate the goals of the fire service with respect to Public relations, information and education.

2.0 Public Relations Considerations

Instructional Goal: The goal is to gain an appreciation for the reaction of citizens in response to contact with the fire service in emergency and non-emergency situations.

Objectives:
2.1 Describe the impact that each of the following has on public relations:
2.1.1 driving manners
2.1.2 appearance of building/grounds
2.1.3 telephone courtesy
2.1.4 quality of service provided
2.1.5 attitudes/actions of personnel
2.2 Describe various ways to handle complaints.
3.0 Public Information Techniques

Instructional Goal: The goal is to provide the student with basic techniques and principles to follow when providing information to the news media.

Objectives:
3.1 Demonstrate how to prepare and describe how to submit a news release.
3.2 Describe the moral and legal considerations which must be taken into account prior to the release of information.
3.3 Describe department policy with regard to communicating with the media.
3.3.1 at the incident scene
3.3.2 at other times

4.0 Public Education Principles

Instructional Goal: The goal is to familiarize the student with the basic principles of planning, presenting and evaluating fire education activities.

Objectives:
4.1 Describe what is involved in each of the following steps of planning a public fire education program:
   a. Identification
   b. selection
   c. design
   d. implementation
   e. evaluation
4.2 Identify three education programs which could be implemented by the department using suppression personnel.
4.3 Describe a positive education message which relates to a local fire problem.

5.0 Summary of Programs

Instructional Goal: The goal is to review the benefits of the various programs and actions to the community and the fire service.

Objectives:
5.1 Describe how public relations, public information and public education can be utilized to benefit the department.
5.2 Identify the benefits to the community that these programs bring.

Course Activities and Design
This course will be presented in the classroom as a lecture conference. It is designed for the working firefighter.

Outcome Assessment Strategies
The instructor will discuss evaluation procedures based upon the course syllabus issued to the students.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 9060

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9060
Course Title: Fire Science II Chem
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies physical and chemical properties of substances, chemical changes, elements, compounds, gases, chemical combinations, weights and measurements, as well as theories of metals, acids, bases, salts, solvents, solutions and emulsions. Prerequisite: MTH 60.

Addendum to Course Description

Intended Outcomes for the course
1.0 Fire Science Chemistry Overview

Instructional Goal: The goal is for the individual to gain an understanding of chemical properties, laws of chemistry, terminology, and chemical interaction and reaction. The individual shall gain an understanding of the practical application of chemistry as it relates to the fire service.

Objectives:
1.1 The individual shall describe the properties of common solid combustibles relative to fire science.
1.2 The individual shall explain the following basic fire extinguishment methods:
1.2.1 Cooling
1.2.2 Oxygen Dilution
1.2.3 Fuel Removal
1.2.4 Chemical Flame Inhibition
1.3 The individual shall describe the four fire classifications.
1.4 The individual shall explain how the following extinguishing agents work:
1.4.1 Water
1.4.2 Foams
1.4.3 Dual Action Agents
1.4.4 Combustible Metal Agents
1.4.5 Halons
1.4.6 Carbon Dioxide
1.4.7 Dry Chemical
1.5 The individual shall explain the physical properties of flammable liquids and combustible liquids.
1.6 The individual explain burning characteristics of liquids.
1.7 The individual shall describe the basic classification of gases by chemical or physical properties. (i.e. toxic, flammable, reactive, cryogenic, liquefied, pressurized)
2.0 Fire Science Chemistry Specifics

Instructional Goal: The goal is for the individual to gain an understanding of specific chemical properties, laws, terminology, and chemical interaction and reaction. The individual shall gain an understanding of specific applications.

Objectives:
2.1 The individual shall describe the combustion process as a chemical equation.
2.2 The individual shall define the term "Chemical Reaction".
2.3 The individual shall define elements, mixtures and compounds.
2.4 The individual shall describe the properties of the following elements:
2.4.1 Hydrogen
2.4.2 Oxygen
2.4.3 Carbon
2.5 The individual shall define hydrocarbon and list five common examples.
2.6 The individual shall define carbohydrate and list three common examples.
2.7 The individual shall describe a chemical equation and list one example.
2.8 The individual shall describe the law of heat flow.
2.9 The individual shall describe the law of specific heat.
2.10 The individual shall describe the latent heat of vaporization.

Course Activities and Design
This course will be presented in lecture format. Students will study terminology, concepts, and laws of chemistry. Classroom demonstration of principles and applications will be fire service related. Specific chemical characteristics, compounds, elements and equations will be studied.

Outcome Assessment Strategies
The instructor will discuss evaluation procedures based upon the course syllabus issued to the students.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 9070

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9070
Course Title: Major Emergency Tac/Strat
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies response and size-up, fire-ground tactics and analysis, post-mortem, pre-fire survey and planning, combined operations, mutual aid, disaster planning and problems in unusual fire operations.

Addendum to Course Description
This course may be used as an elective for an Associate Degree of Applied Science in Fire Protection. This course is required for an Associate Degree of Applied Science in Fire Protection and fulfills the requirements for the Fire Standards and Accreditation Board subjects #62-01 and the appropriate performance objectives of NFPA standards for Fire Officer. This course is transferable to a degree program in Fire Service Administration at Western Oregon University or Eastern Oregon University.

Intended Outcomes for the course
- #62-01 Major Emergency Tactics and Strategy.
- #62-01.01 The individual shall identify local and regional agencies which would respond to a major incident or disaster.
- #62-01.02 The individual shall describe the responsibilities and authority of each agency which would respond to a major incident or disaster.
- #62-01.03 The individual shall identify the components of a plan to cope with a large scale emergency situation.
- #62-01.04 The individual shall, given a simulated disaster situation: A) Describe how the disaster plan is activated B) Describe how outside assistance is summoned.
- #62-01.05 The individual shall describe emergency procedures to be followed by fire personnel during civil disturbances.
- #62-01.06 The individual shall identify alternative methods of communication which could be utilized in major emergency operations.
- #62-01.07 The individual shall choose five from a list of incidents (major transportation, emergency, jail/hospital fire, natural disaster, tank farm fire, mass casualty incident, high rise fire, shopping center fire, conflagration, hazardous materials incident.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, simulations and discussion format. Lectures will take place in the classroom. Other instructional methods including guest speakers, research papers, demonstrations, simulations and presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, homework assignments, research papers, written and oral reports, simulations, scenarios, team and individual evaluations.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 9080

Date: 16-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9080
Course Title: Fire Fight Saf/Surv Co Officer
Credit Hours: 1
Lecture hours: 10
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Covers safety on the fireground, equipment, the officer's role in modifying behavior and identifying hazardous situations. Identifies state safety rules.

Addendum to Course Description

Intended Outcomes for the course

1.0 Safety on the Fire Ground

The goal is for the student to understand how different factors impact safety on the fire ground.

1.1 Describe the factors affecting personnel safety
1.1.1 Lack of policies.
1.1.2 Lack of enforcement of policies
1.1.3 Inadequate training.
1.1.4 Inadequate maintenance of clothing and equipment.

2.0 Company Officer's Role In Modifying Behavior

The goal is to provide techniques that can be used to motivate employees to act safely.

2.1 List the duties of the company officer in safety programs
2.1.1 Goal Setting
2.1.2 Supervision
2.1.3 Motivation
2.1.4 Evaluation

3.0 Components of Health and Physical Fitness

The goal is to show the relation of injury and safety to Health and Fitness programs.

3.1 Describe the correct approach to fitness training.
3.1.1 Organized program
3.1.2 Supervised participation
3.1.3 Evaluation
4.0 Common Hazardous Situations

The goal is to make the student aware of safety problems found in fire service activities.

4.1 Identify hazardous situations and how to diminish the danger in each of the following:
4.1.1 Training activities
4.1.2 Around the fire station
4.1.3 Preparing for response
4.1.5 Operating at an incident
4.1.6 Returning from an accident
4.2 Describe how to include safety in a post-incident critique.
4.2.1 Officers evaluation
4.2.2 Crew comments
4.2.3 Recommendations.

5.0 Survival Tips For Firefighting Situations

The goal is to review common safety concerns in emergency operations and suggest ways to avoid injury.

Objectives:
5.1 Identify five "survival tips" for each of the following:
5.1.1 Interior attack
5.1.2 Search and rescue
5.1.3 Ventilation
5.1.4 Exterior attack

6.0 Worker's Compensation-Division 151 Rules

To familiarize the student with occupational safety requirements that apply to firefighters.

6.1 Using the Division 151 Rules:
6.1.1 Identify the elements of an organizational statement.
6.1.2 Describe employer's and employee's responsibilities.
6.1.3 Describe training and education requirements.
6.1.4 Describe general requirements for protective clothing.
6.1.5 Describe general requirements for respiratory protection devices.

Course Activities and Design
This course will be presented as a lecture/conference in the classroom. It is designed for the working firefighter.

Outcome Assessment Strategies
The instructor will discuss evaluation procedures based upon the course syllabus issued to the students.

Course Content (Themes, Concepts, Issues and Skills)
The student must have fire service experience or have completed the fire science degree program or approval of the instructor.
Course Content and Outcome Guide for FP 9090

Date: 15-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9090
Course Title: Incident Command
Credit Hours: 2
Lecture hours: 20
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Covers current incident command systems and how to improve fireground operational techniques through a structured process. Prerequisite: FP 113.

Addendum to Course Description

Intended Outcomes for the course
1.0 Introduction to Incident Command

The goal is to gain an appreciation of the benefits found in using a system for managing resources at emergency incidents.

Objectives:
1.1 Identify two common command problems that occur at incident.
1.2 Describe how common command problems can be remedied through the use of an incident command system.
1.3 Explain the concept of incident command.
1.4 List the elements controlled: personnel, equipment, facilities and communications.

2.0 Organization

The goal is to explain the format used in an incident command system.

Objectives:
2.1 Identify and describe five major functional areas of an incident command system.
2.2 Identify and describe three command staff functions.
2.3 Describe how an incident command system can be expanded when responsibility for a functional area exceeds the capability of the commander.

3.0 Management Advantages

The goal is to recognize the benefits and planned sequence of actions the system provides.

3.1 Describe how an incident command system provides for unity of command.
3.2 Explain the advantages of the common terminology of an incident command system and identify some of the differences in terms between departments.
4.0 Establishing Command

To give the student specific proven techniques for establishing the system.

4.1 Describe methods for establishing command
4.2 Define authority and responsibility as they relate of command.
4.3 Describe when a command post should be established and two factors important to its location.
4.4 Identify two types of sectoring.
4.5 Identify and describe two methods of staging.
4.6 Describe a procedure for transferring command.
4.7 Describe how to establish strategic objectives based on incident priorities, situation status, and resource capabilities.
4.8 Describe the importance of clear communications to all phases of an incident.

5.0 Application of Lessons Learned

The goal is to test the student's ability to apply knowledge and skills learned in previous instruction.

5.1 Participate in and/or observe fire simulation exercises (table top, etc.) that involve radios.
5.2 Exchange ideas and experiences based on actual emergency incidents.

Course Activities and Design

The course will be presented as a lecture/conference in the classroom with an application phase based on the competencies included. It is designed for the working firefighter.

Outcome Assessment Strategies

The instructor will discuss evaluation procedures based upon the course syllabus issued to the students.

Course Content (Themes, Concepts, Issues and Skills)

The student must have fire service experience or have completed the fire science degree program or approval of the instructor.
Course Content and Outcome Guide for FP 9110

Date: 15-OCT-2007
Posted by: Curriculum Office
Course Number: FP 9110
Course Title: Fire Inspection Practices
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Studies the various steps to be followed prior to and during an actual fire inspection. The legal aspects of fire inspections on both new and existing structures are covered. Prerequisites: FP 122, 202, 211.

Addendum to Course Description

Intended Outcomes for the course

1.0 Introduction

To provide the student with an understanding of the concept of fire prevention inspection.

Student will:
1.1.1 Explain the need for fire prevention inspection.
1.2.0 Scope
1.2.1 Explain the need for an inspection schedule based upon occupancy type.
1.2.2 Explain the inspection limitation placed upon fire company personnel.
1.3.0 Right of entry
1.3.1 Explain the court cases which have established right of entry.
1.4.0 Legal Aspects
1.4.1 Discuss the liability for failure to pursue an identified hazard.
1.4.2 Discuss the liability for failure to notice an obvious hazard.
1.4.3 Discuss the concept of "meeting the test of a reasonable and prudent inspector."
1.5.0 Other agencies conducting inspection
1.5.1 Discuss which agencies currently conduct inspection and the type of inspection being conducted.

2.0 Preparation for the Inspection

To develop an understanding of the need to properly prepare, in advance, for an inspection.

2.1.0 Inspector equipment
2.1.1 Identify and explain the "tools" an inspector needs to conduct an inspection.
2.2.0 Manner of Dress
2.2.1 Explain the need for the proper appearance.
2.3.0 Review of building history
2.3.1 Explain the need to be familiar with the building prior to the inspection.
3.0 Gaining Admission

To develop an understanding of the importance of the proper initial contact.

3.1.0 Identifying the person of authority.
3.1.1 Explain the need for contacting the person in charge.
3.2.0 Securing permission
3.2.1 Explain the need for securing permission.
3.2.2 Explain the procedure to follow if permission is denied.

4.0 The Inspection Tour

To develop the skills and knowledge necessary to conduct an inspection.

4.1.0 Obtain Guide
4.1.1 Explain the need for a guide
4.2.0 Starting Point
4.2.1 Explain the need for an established starting point.
4.3.0 Secure areas
4.3.1 Explain how to deal with building areas which are "secured".
4.4.0 Note taking
4.4.1 Explain the need for note taking.
4.4.2 Demonstrate the proper methods of note taking.
4.5.0 Corrective action during the tour.
4.5.1 Explain the procedure when a violation is corrected during the tour.
4.6.0 Discuss the findings with the person in charge.
4.6.1 Discuss the need for explaining the results of the inspection with the proper authority.
4.7.0 The exit interview
4.7.1 Explain the importance of an exit interview from a compliance standpoint as well as a public relations standpoint.

5.0 Records

To develop an understanding of the importance of adequate records.

5.1.0 Explain the need for maintaining this file.
5.2.0 Department files.
5.2.1 Explain how a fire department would establish and maintain an inspection file.
5.3.0 State
5.3.1 Discuss the requirements of the state as relating to inspection records.
5.4.0 Federal
5.4.1 Discuss the requirements of the Federal Agencies as relating to inspection records.
6.0 Reinspections

To develop an understanding of the need for reinspection to assure compliance.

6.1 Time frame
6.1.1 Discuss the concept of "adequate time" to assure compliance.
6.2 Inspection of the violation.
6.2.1 Explain the method to be used to inspect the violation
6.3 Exit interview
6.3.1 Discuss the importance of an exit interview.
6.4 Records
6.4.1 Explain the need for proper record keeping
6.5 Legal action
6.5.1 Discuss the legal avenues open to the inspector to ensure compliance.

7.0 Hazard Identification

To familiarize the student with types of hazards and their potential.

7.1 Potential fire hazards.
7.1.1 Discuss how contents present hazards.
7.2 Potential fire causes
7.2.1 Discuss various types of ignition sources.
7.3 Potential fire spread factors
7.3.1 Discuss various aspects which may influence fire spread.

8.0 Private Fire Protection Systems

To develop an understanding of the need for functioning private fire protection systems.

8.1 Automatic Sprinkler Systems.
8.1.1 Explain the testing procedures that should be covered during the inspection.
8.2 Portable fire extinguishers.
8.2.1 Explain the need for adequate testing and placement of portable fire extinguishers.
8.3 Smoke detectors.
8.3.1 Discuss the need proper testing and knowledge of the system by the occupancy's personnel.

9.0 Specialized Complexes

To develop an understanding of the uniqueness of occupancies and their needs. The type of occupancy(s) covered would vary with the needs of the class.

10.0 Practicum

To provide practical experience in conducting fire prevention inspections. This practical experience would occur throughout the course.

Course Activities and Design

Outcome Assessment Strategies
Evaluation procedures will be discussed during the first class meeting.

Course Content (Themes, Concepts, Issues and Skills)
Course Content and Outcome Guide for FP 9210

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 9210
Course Title: Arson Law, Evidence, Motives
Credit Hours: 3
Lecture hours: 30
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Introduces common law, statutory law and case law pertaining to arson and other willful burning. Arson as an economic crime and a part of organized crime operation is also discussed. Prerequisite: FP 212.

Addendum to Course Description
This course can be used as an elective toward an Associate Degree of Applied Science in Fire Protection Technology. This course meets the following NFPA 1033 Standards for Fire Investigator: (3-2.1 thru 3-2.6) (3-3.1 thru 3-3.3) (3-4.1 thru 3-4.5) (3-6.1 thru 3-6.5)

Intended Outcomes for the course
- Demonstrate knowledge of the criminal justice system; criminal prosecution process and statutory law.
- Define arson; describe the arson problem and the history of arson as a crime.
- Describe revised statutes applied to the criminal prosecution of arson and legal definitions of applicable terms.
- Demonstrate scene examination techniques; securing the scene; exterior survey; interior survey; interpret and correlate burn patterns; examine and remove debris.
- Document the investigative scene; diagram; photograph and construct investigative notes.
- Demonstrate proper procedures for collecting and preserving evidence; selecting, locating and packaging evidence; maintain the chain of custody; dispose of evidence utilizing appropriate policy and procedures.
- Demonstrate post incident investigation; gather reports and records; evaluate investigative files; coordinate with expert resources; establish evidence as to motive and/or opportunity; formulate opinion supported by records, reports, documents and evidence.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, research papers, simulations and student presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, projects, research papers and classroom participation.
Course Content (Themes, Concepts, Issues and Skills)

- Demonstrate knowledge of the criminal justice system; criminal prosecution process and statutory law.
- Define arson; describe the arson problem and the history of arson as a crime.
- Describe revised statutes applied to the criminal prosecution of arson and legal definitions of applicable terms.
- Demonstrate scene examination techniques; securing the scene; exterior survey; interior survey; interpret and correlate burn patterns; examine and remove debris.
- Document the investigative scene; diagram; photograph and construct investigative notes.
- Demonstrate proper procedures for collecting and preserving evidence; selecting, locating and packaging evidence; maintain the chain of custody; dispose of evidence utilizing appropriate policy and procedures.
- Demonstrate post incident investigation; gather reports and records; evaluate investigative files; coordinate with expert resources; establish evidence as to motive and/or opportunity; formulate opinion supported by records, reports, documents and evidence.
Course Content and Outcome Guide for FP 9250

Date: 30-MAY-2007
Posted by: Curriculum Office
Course Number: FP 9250
Course Title: Adv Fire & Arson Investigation
Credit Hours: 4
Lecture hours: 40
Lecture/Lab hours: 0
Lab hours: 0
Special Fee:

Course Description
Examines areas of knowledge necessary for the identification and investigation of specific causes of fires. Designed to expand on information introduced in FP 212. Prerequisite: FP 212 or instructor permission.

Addendum to Course Description
This Course is designed to expand on information and exercises completed in FP 212 Fire Investigation and FP 9210 Arson Law, Evidence & Motives. The Advanced Fire and Arson Investigation course completes a sequence that is designed to meet NFPA 1033 Fire Investigator.

This course can be used as an elective toward an Associate Degree of Applied Science in Fire Protection Technology.

Intended Outcomes for the course
- Students will describe the State and National Fire Incident Reporting System and identify information available used to assist in fire investigations.
- Secure and control a simulated fire scene; identify and use detection equipment; identify and describe types of incendiary devices.
- Reconstruct the area of origin for a fire scene; inspect the performance of building systems including detection, suppression, HVAC, utilities and compartmentalization.
- Develop an interview plan; interview and interrogate witnesses and suspects; evaluate interview information; identify and document correlating, conflicting and corroborative information.
- Present collected investigative information verbally and in written report; as testimony in legal proceedings and as public information during news interview.

Course Activities and Design
The material in this course will be presented in a lecture, demonstration, and practical application format. Other instructional methods including guest speakers, research papers, simulations and student presentations may be employed.

Outcome Assessment Strategies
At the beginning of the course, the instructor will discuss the methods used to evaluate student performance and progress and the criteria for assigning a course grade. A course syllabus will be provided. Assessment methods may include one or more of the following: examinations, quizzes, simulations, demonstrations, projects, research papers and classroom participation.
Course Content (Themes, Concepts, Issues and Skills)

- Students will describe the State and National Fire Incident Reporting System and identify information available used to assist in fire investigations.
- Secure and control a simulated fire scene; identify and use detection equipment; identify and describe types of incendiary devices.
- Reconstruct the area of origin for a fire scene; inspect the performance of building systems including detection, suppression, HVAC, utilities and compartmentalization.
- Develop an interview plan; interview and interrogate witnesses and suspects; evaluate interview information; identify and document correlating, conflicting and corroborative information.
- Present collected investigative information verbally and in written report; as testimony in legal proceedings and as public information during news interview.
Appendix – B

Department of Labor
Bureau of Labor Statistics
Occupational Outlook Handbook, 2010
Fire Fighters

http://www.bls.gov/oco/ocos329.htm
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Fire Fighters

Significant Points

- Fire fighting involves hazardous conditions and long, irregular hours.
- About 9 out of 10 fire fighters were employed by local governments.
- Applicants generally must pass written, physical, and medical examinations, and candidates with some postsecondary education are increasingly preferred.
- Keen competition for jobs is expected because this occupation attracts many qualified candidates.

Nature of the Work

Every year, fires and other emergencies take thousands of lives and destroy property worth billions of dollars. Fire fighters help protect the public against these dangers by responding to fires and a variety of other emergencies. Although they put out fires, fire fighters more frequently respond to other emergencies. They are often the first emergency personnel at the scene of a traffic accident or medical emergency and may be called upon to treat injuries or perform other vital functions.

During duty hours, fire fighters must be prepared to respond immediately to a fire or other emergency. Fighting fires is complex and dangerous, and requires organization and teamwork. At every emergency scene, fire fighters perform specific duties assigned by a superior officer. At fires, they connect hose lines to hydrants and operate a pump to send water to high-pressure hoses. Some carry hoses, climb ladders, and enter burning buildings—using systematic and careful procedures—to put out fires. At times, they may need to use tools to make their way through doors, walls, and debris, sometimes with the aid of information about a building’s floor plan. Some find and rescue occupants who are unable to leave the building safely without assistance. They also provide emergency medical attention, ventilate smoke-filled areas and attempt to salvage the contents of buildings. Fire fighters’ duties may change several times while the company is in action. Sometimes they remain at the site of a disaster for days at a time, rescuing trapped survivors, and assisting with medical treatment.

Fire fighters work in a variety of settings, including metropolitan areas, rural areas, airports, chemical plants and other industrial sites. They also have assumed a range of responsibilities, including providing emergency medical services. In fact, most calls to which fire fighters respond involve medical emergencies. In addition, some fire fighters work in hazardous materials units that are specially trained for the control, prevention, and cleanup of hazardous materials, such as oil spills or accidents involving the transport of chemicals. (For more information, see the Handbook section on hazardous materials removal workers.)

Workers specializing in forest fires utilize methods and equipment different from those of other fire fighters. When fires break out, crews of fire fighters are brought in to suppress the blaze with heavy equipment and water hoses. Fighting forest fires, like fighting urban fires, is rigorous work. One of the most effective means of fighting a forest fire is creating fire lines—cutting down trees and digging out grass and all other combustible vegetation in the path of the fire in order to deprive it of fuel. Elite fire fighters called smoke jumpers parachute from airplanes to reach otherwise inaccessible areas. This tactic, however, can be extremely hazardous.

When they aren’t responding to fires and other emergencies, fire fighters clean and maintain equipment, learn additional skills related to their jobs, conduct practice drills, and participate in physical fitness activities. They also prepare written reports on fire incidents and review fire science literature to stay informed about technological developments and changing administrative practices and policies.

Work environment. Fire fighters spend much of their time at fire stations, which are usually similar to dormitories. When an alarm sounds, fire fighters respond, regardless of the weather or hour. Fire fighting involves a high risk of death or injury. Common causes include floors caving in, walls toppling, traffic accidents, and exposure to flame and smoke. Fire fighters also may come into contact with poisons, flammable, or explosive gases and chemicals and radioactive materials, all of which may have immediate or long-term effects on their health. For these reasons, they must wear protective gear that can be very heavy and hot.

Work hours of fire fighters are longer and more varied than the hours of most other workers. Many fire fighters work about 50 hours a week, and sometimes they may work longer. In some agencies, fire fighters are on duty for 24 hours, then off for 48 hours, and receive an extra day off at intervals. In others, they work a day shift of 10 hours for 3 or 4 days, a night shift of 14 hours for 3 or 4 nights, have 3 or 4 days off, and then repeat the cycle. In addition, fire fighters often work extra hours at fires and other emergencies and are regularly assigned to work on holidays. Fire lieutenants and fire captains frequently work the same hours as the fire fighters they supervise.

Training, Other Qualifications, and Advancement

Applicants for fire fighting jobs usually are required to have at least a high school diploma, but candidates with some postsecondary education are increasingly being preferred. Most mu
ncipal jobs require passing written and physical tests. All fire fighters receive extensive training after being hired.

Education and training. Most fire fighters have a high school diploma; however, the completion of community college courses or, in some cases, an associate’s degree, in fire science may improve an applicant’s chances for a job. A number of colleges and universities offer courses leading to 2-year or 4-year degrees in fire engineering or fire science. In recent years, an increasing proportion of new fire fighters have had some education after high school.

As a rule, entry-level workers in large fire departments are trained for several weeks at the department’s training center or academy. Through classroom instruction and practical training, the recruits study fire fighting techniques, fire prevention, hazardous materials control, local building codes, and emergency medical procedures, including first aid and cardiopulmonary resuscitation (CPR). They also learn how to use axes, chain saws, fire extinguishers, ladders, and other fire fighting and rescue equipment. After successfully completing training, the recruits are assigned to a fire company, where they undergo a period of probation.

Many fire departments have accredited apprenticeship programs lasting up to 4 years, including programs in fighting forest fires. These programs combine formal instruction with on-the-job training under the supervision of experienced fire fighters.

Almost all departments require fire fighters to be certified as emergency medical technicians. (For more information, see the section of the Handbook on emergency medical technicians and paramedics.) Although most fire departments require the lowest level of certification, Emergency Medical Technician-Basic (EMT-Basic), larger departments in major metropolitan areas increasingly are requiring paramedic certification. Some departments include this training in the fire academy, whereas others prefer that recruits earn EMT certification on their own, but will give them up to 1 year to do it.

In addition to participating in training programs conducted by local fire departments, some fire fighters attend training sessions sponsored by the U.S. National Fire Academy. These training sessions cover topics such as executive development, antiterrorism techniques, disaster preparedness, hazardous materials control, and public fire safety and education. Some States also have mandatory or voluntary fire fighter training and certification programs. Many fire departments offer fire fighters incentives, such as tuition reimbursement or higher pay, for completing advanced training.

Other qualifications. Applicants for municipal fire fighting jobs usually must pass a written exam, tests of strength, physical stamina, coordination, and agility; and a medical examination that includes a drug screening. Workers may be monitored on a random basis for drug use after accepting employment. Examinations are generally open to people who are at least 18 years of age and have a high school education or its equivalent. Those who receive the highest scores in all phases of testing have the best chances of being hired.

Among the personal qualities fire fighters need are mental alertness, self-discipline, courage, mechanical aptitude, endurance, strength, and a sense of public service. Initiative and good judgment also are extremely important, because fire fighters make quick decisions in emergencies. Members of a crew live and work closely together under conditions of stress and danger for extended periods, so they must be dependable and able to get along well with others. Leadership qualities are necessary for officers, who must establish and maintain discipline and efficiency, as well as direct the activities of the fire fighters in their companies.

Advancement. Most experienced fire fighters continue studying to improve their job performance and prepare for promotion examinations. To progress to higher level positions, they acquire expertise in advanced fire fighting equipment and techniques, building construction, emergency medical technology, writing, public speaking, management and budgeting procedures, and public relations.

Opportunities for promotion depend upon the results of written examinations, as well as job performance, interviews, and seniority. Hands-on tests that simulate real-world job situations also are used by some fire departments.

Usually, fire fighters are first promoted to engineer, then lieutenant, captain, battalion chief, assistant chief, deputy chief, and, finally, chief. For promotion to positions higher than battalion chief, many fire departments now require a bachelor’s degree, preferably in fire science, public administration, or a related field. An associate’s degree is required for executive fire officer certification from the National Fire Academy.

Employment

In 2008, total paid employment in fire fighting occupations was about 365,600. Fire fighters held about 310,400 jobs, and first-line supervisors/managers of fire fighting and prevention workers held about 55,200. These employment figures include only paid career fire fighters—they do not cover volunteer fire fighters, who perform the same duties and may constitute the majority of fire fighters in a residential area. According to the U.S. Fire Administration, about 70 percent of fire companies were staffed entirely by volunteer fire fighters in 2007.

About 91 percent of fire fighting workers were employed by local governments. Some local and regional fire departments are being consolidated into countywide establishments to reduce administrative staffs, cut costs, and establish consistent training standards and work procedures. Some large cities have thousands of career fire fighters, while many small towns have only a few. Most of the fire fighters not employed by local governments worked in fire departments on Federal and State installations, including airports. Private fire fighting companies employ a small number of fire fighters.

Job Outlook

Although employment is expected to grow faster than the average for all jobs, candidates for these positions are expected to face keen competition because these positions are highly attractive and sought after.

Employment change. Employment of fire fighters is expected to grow by 19 percent over the 2008–18 decade, which is faster than the average for all occupations. Most job growth will stem from volunteer fire fighting positions being converted to paid positions. In recent years, it has become more difficult for volunteer fire departments to recruit and retain volunteers, perhaps because of the considerable amount of training and
time commitment required. Furthermore, a trend toward more people living in and around cities has increased the demand for fire fighters. When areas develop and become more densely populated, emergencies and fires affect more buildings and more people and, therefore, require more fire fighters.

**Job prospects.** Prospective fire fighters are expected to face keen competition for available job openings. Many people are attracted to fire fighting because (1) it is challenging and provides the opportunity to perform an essential public service, (2) a high school education is usually sufficient for entry, and (3) a pension is usually guaranteed after 25 years of service. Consequently, the number of qualified applicants in most areas far exceeds the number of job openings, even though the written examination and physical requirements eliminate many applicants. This situation is expected to persist in coming years. Applicants with the best chances are those who are physically fit and score the highest on physical-conditioning and mechanical aptitude exams. Those who have completed some fire fighter education at a community college and have EMT or paramedic certification will have an additional advantage.

**Earnings**

Median annual wages of fire fighters were $44,260 in May 2008. The middle 50 percent earned between $31,180 and $58,440. The lowest 10 percent earned less than $22,440, and the highest 10 percent earned more than $72,210. Median annual wages were $44,800 in local government, $45,610 in the Federal Government, $25,300 in other support services, and $37,870 in State governments.

Median annual wages of first-line supervisors/managers of fire fighting and prevention workers were $67,440 in May 2008. The middle 50 percent earned between $53,820 and $86,330. The lowest 10 percent earned less than $40,850, and the highest 10 percent earned more than $108,930. First-line supervisors/managers of fire fighting and prevention workers employed in local government earned a median of about $69,000 a year.

According to the International City-County Management Association, average salaries in 2008 for sworn full-time positions were as follows:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Minimum annual base salary</th>
<th>Maximum annual base salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire chief</td>
<td>$78,672</td>
<td>$164,780</td>
</tr>
<tr>
<td>Deputy chief</td>
<td>$69,166</td>
<td>$88,574</td>
</tr>
<tr>
<td>Battalion chief</td>
<td>$66,851</td>
<td>$81,710</td>
</tr>
<tr>
<td>Assistant fire chief</td>
<td>$65,691</td>
<td>$83,748</td>
</tr>
<tr>
<td>Fire captain</td>
<td>$60,605</td>
<td>$72,716</td>
</tr>
<tr>
<td>Fire lieutenant</td>
<td>$50,464</td>
<td>$60,772</td>
</tr>
<tr>
<td>Engineer</td>
<td>$48,307</td>
<td>$62,265</td>
</tr>
</tbody>
</table>

Fire fighters who average more than a certain number of work hours per week are required to be paid overtime. The threshold is determined by the department. Fire fighters often work extra shifts to maintain minimum staffing levels and during special emergencies.

In 2008, 66 percent of all fire fighters were union members or covered by a union contract. Fire fighters receive benefits that usually include medical and liability insurance, vacation and sick leave, and some paid holidays. Almost all fire departments provide protective clothing (helmets, boots, and coats) and breathing apparatus and many also provide dress uniforms. Fire fighters generally are covered by pension plans, often offering retirement at half pay after 25 years of service or if the individual is disabled in the line of duty.

**Related Occupations**

Other occupations that involve protecting the public and property are:

- Emergency medical technicians and paramedics
- Fire inspectors and investigators
- Police and detectives

**Sources of Additional Information**

Information about a career as a fire fighter may be obtained from local fire departments and from either of the following organizations:

- International Association of Fire Fighters, 1750 New York Ave. NW, Washington, DC 20006. Internet: [http://www iaaff org](http://www iaaff org)
- U.S. Fire Administration, 16825 South Seton Ave., Emmitsburg, MD 21727. Internet: [http://www usfa dhs gov](http://www usfa dhs gov)

Information about professional qualifications and a list of colleges and universities offering 2-year or 4-year degree programs in fire science or fire prevention may be obtained from:

- National Fire Academy, 16825 South Seton Ave., Emmitsburg, MD 21727. Internet: [http://www usfa dhs gov/nfa](http://www usfa dhs gov/nfa)

The Occupational Information Network (O*NET) provides information on a wide range of occupational characteristics. Links to O*NET appear at the end of the Internet version of this occupational statement, accessible at [http://www bls gov/ohi ocos329 htm](http://www bls gov/ohi ocos329 htm)
Appendix – C

Advisory Committee Minutes
Portland Community College
Emer. Serv. Department/Fire Protection Technology
Advisory Committee

Minutes
April 1, 2010

Welcome: Kal Robertson Director of Emergency Services Dept.
Greetings: Scott Huff, Dean of Instruction

Review Committee Member Handbook:
- Importance of being an advisory committee member stressed, to ensure quality education for PCC students.
- Members need to give constructive evaluations of instructors, courses and program.
- Need members input on existing programs for possible changes or additions

Doug Smith discussed the worksheet for the curriculum plan for the students and the newest changes.
DeAnne Hardy talked about the Co-op courses for the Emergency Services students. She goes to departments and finds what expectations the fire departments are looking for in a potential employee. She also discussed how she uses an online interviewing tool to prepare students for future interviews.

Members General Comments:
- Fire Services are changing.
- PCC lacking in
  - Customer/community service area in curriculum
  - Post Traumatic Stress for Firefighters needs to be addressed, It is the biggest contributor to workers comp claims
    - Doug suggested a current class in Sociology Death and Dying
  - More concentration on ethics, teamwork, and integrity
  - Wellness and safety for employees
- Suggested that Title of Program does not fit with the current Fire Industry, they are no longer just a fire department they have become All Hazard Emergency Services.
- A suggestion of having a Disaster Management course added to curriculum.
  - Introducing students to NIMS (Nat’l Incident Mgmt Systems)
  - Could incorporate an Emergency Management Course
- Diversity of Students in the Fire Programs
  - Some ethnic groups don’t see fire fighting as a career
  - Some cultures view having a fire as a disgrace and have a dim view of firefighters in the same light.
  - Fire departments also deal with this issue.
- Environment for occupations in general are very competitive. Fire Fighters compete with multiply careers that market their careers.
  - Options for marketing
    - Educate the younger students not only in high school, possibly middle and elementary schools. Educate them on decisions that they make now could affect their future; this will help them understand their limitation on entering the Fire Fighting career.
    - SEI works with students 2nd grade to age of 25 to help them focus on careers, this could be a possibility
Suggestion made for having a marketing tool where Public Service departments, Schools that offer fire science, and fire departments and create an advertisement much like the military does.

- TVF&R would like to have a list hirable students and top candidates they could have access to for the unexpected vacancies in department.
- Internship/List of potential qualified students for employment
  - There is an example between Canada’s fire depts. and colleges
  - Set up partnerships between PCC and fire departments.
  - These internship/List could be a viable resource for future recruitment for upcoming openings
  - Create a written Exam and Physical Agility test that would be comparable to what most departments do for their hiring process. This could save departments the hassle and the overtime for employees
    - Possibly create a state certified exam/agility test
    - This would need to have a 3rd party as testers/PCC could facilitate/or be proctors
    - This would need to be above
  - The Exam/Agility test can create a list of top students that can be sent for the Department’s Chief interviews
    - This may not be feasible for smaller departments
  - The testing could be used for student assessments in areas that may need improving.
  - Could also have continual tests to keep them updated on the list.
    - Possibly create a testing score card that they need to renew at a certain and can use as proof of skills prior to interviewing with departments.
  - This could be a great marketing tool for PCC
  - This could also be more revenue for PCC

Suggestions for Brochure:
- Expand “Career Overview” sections describe what fire departments actually do. Fires are less than 1/10 of 1% of what fire fighters do.

Questions from Kal to Committee members:

1. What are the Fire program curriculum strengths and weaknesses? What should we be doing differently? What should we be offering?
   - Suggestions for more general education courses that would transfer to EOU
   - Suggested more wildland fire, Fire investigation courses.
     - Possibly another degree covering Fire investigation
     - Not every student wants to do fire fighting
   - Students coming from PCC are a little dated and are focused on structural firefighting.
   - Students need to understand the total mission of fire departments
   - Have some focus on a holistic approach and prevention
   - Possibly bridging EMS/FP

2. What is your opinion of credit for prior learning? Should it be credit or CEU’s
   - CEU’s are only good for a short period of time vs credits are permanent.
   - DPSST will cover what CEU’s do and the DPSST will be a requirement
   - Contract credits very beneficial
   - Contract credits can be used as transfer credits for EOU

3. Are you pleased with the end product?
   - Deputy Chief Michael Duyck is a PCC Fire Protection Tech. Graduate and was very pleased.
   - Banks has volunteers from PCC and is please with them.
   - Others are unsure if they have any PCC graduates.
4. How much additional training is needed by our students when you hire them?
   o There is always additional training due to the fact that every department has different styles and equipment

5. Is it important for our students to address PCC instructors and lab techs by Chief, Captain, etc, during training?
   o This is important to instill early to prepare them for the chain of command in the work force.
     (Clackamas)
   o Some smaller departments may be a little less informal.

Next Meeting:

 o Would like to give at least 3 weeks notice.
 o There may be a notice to give some options on times and then we can determine the best date for the majority.

 o Some suggestions are:
   ▪ No Mondays
   ▪ Late mornings early afternoons
   ▪ Wednesday afternoons looks like a possibility (12-3).
Portland Community College  
Emer. Serv. Department/Fire Protection Technology  
Advisory Committee  
Minutes  
May 26, 2010

Welcome: Kal Robertson Director of Emergency Services Dept.
Attendance: Kal Robertson, Bill Benjamin, Jason McKinnon, Levi Eckhardt, Craig Callicotte, Dennis Katz, Ed Kirchhofer, Jay Tappan, Ed Lindsey, Jeff Nepstad, Shawn Parrish, Michelle Butler, Sherry Hanchett, Bill Kendrix, Mark Hornshuh, Milt Villegas.
Meeting schedules: Oct 27th from 1pm-3pm  
Feb. 23rd 1pm – 3pm  
May: To be determined

IFSAC:
- It is an umbrella that covers accreditations at the NFPA Levels –Degrees/Certifications
- PCC will be looking at doing these specific to the Fire Program.
- Accreditation – is the status granted to an educational or professional certificate program that has been found to meet or exceed standard criteria.
- The Dept. of Defense is under it.
- Benefits:
  - Makes it nationally recognized
  - Establishes accountability for performance
  - Validates testing/educational programs
  - Validation of a provider’s skills
  - Offers PCC students to be IFSAC Certified to be more marketable
  - Could be used for pre-employment list for FD in area
- It is a 3rd party review system that analyzes the program and certifies it
- DPSST certifications only are accepted in Oregon
- NAPA – FFI is the commonly accepting gauge for other states.
- No college in OR has IFSAC Certifications
- Washington has one college who has IFSAC certifications
- It is a 2 year process to become IFSAC accredited

Comments on IFSAC:
This could give people a perspective of the overall view that can go anywhere in the states.
Should be careful not to have too many certificates, it could be overwhelming.
Next step would be to do a self study to reveal deficiencies and prepare for a site visit.

Program Review – Doug Smith
- Discussed the pre-employment testing for the local FD’s. Once a program review has been satisfied, they can not commit. Hiring is the most important aspect the FD do today. Clackamas and TVF&R would back up once they know the standards they uphold are in place here. Clackamas suggested putting together a group to work out the logistics. Clackamas can offer Marybeth McGee from their HR dept to be part of this group. TVF&R will get together with Clackamas and put together some ideas /concepts.
- There is some concerns with the smaller departments that if they use this list that the candidates would only be using them as a stepping stone to get onto the larger departments. Response was, this happens already.
- A pre-employment list of potential candidates that have completed training and testing at PCC could benefit all departments. It can save testing costs and remove liability for them.
PCC’s Associates Degree for Fire Protection Technology

- The program has addressed the concerns from the last meeting in regards to what should be in the program’s associates’ degree. The program has looked into what existing courses can be incorporated into the degree. The following is what is in place or to be added:
  - The Advisors for Fire are directing students to take the MSD 117 Customer Service course as an elective.
  - FP 210 Multicultural Strategies for Firefighters to cover Diversity
  - Suggest students take a second language.
  - EM 103 – Intro to Radio Communications – to cover better communication skills
  - FP 214 – Occupational Safety & Health for the Fire Science – covers the psychological areas.
- The curriculum as it is now is geared to Firefighting suppression. It is suggested that emphasis be added to Fire Education and Prevention

Some Ideas presented:
- Pathways certificate in Fire Suppression which would include:
  - EMT – Basic
  - Skills academy
  - Possibly Wildland
- The Assoc. Degree would then be focused on Leadership and change to Fire Service Leadership

How important are the contract credits?
- Sandy FD – Very valuable, allows those who have been in the business for awhile. It gives them the incentive to continue to get their degree.
- It gives the fire departments opportunities to promote PCC.
- The overall consensus is that it is a great option.

What are the Fire program curriculum strengths and weaknesses? What should we be doing differently? What should we be offering?

- The drill grounds are not the best but better than nothing, could use more space for driving and skills class. The classrooms could use a better ventilation system in order to use chemical demonstrations better and safely. It would be very beneficial for the HazMat.

Wildland
- Has the overall change in Fire gone from Structural to Wildland?
- Private contractors are looking for Wildland courses for potential employees.
- The Wildland Courses at PCC are now nationally certified.
- Since most of the FD’s are rural they are looking for those who have certificates and/or experience in Wildland.
- Main concept for students is getting a job and the courses need to appeal to the students.
- The 3 areas in fire to get a job are:
  - Medical (Paramedic)
  - Structural
  - Wildland
- There are fewer jobs in fire prevention, more in seasonal times for Wildland.
- Firefighting is becoming more complex there is a need to be educated in all of the areas of firefighting. Such as Wildland, Disaster, Terrorism, etc..
- Experience in Wildland would give them quick experience to apply to get jobs in structural.
- Wildland makes them mobile.
- 7 students who have taken the Wildland and got their certificates have been hired.
- The certificate that PCC’s Wildland gives meets national standards.
Misc.

PCC has unique possibilities since it has Dispatch, Fire, EMT, Criminal Justice and EM. They should be incorporating these programs to be more well rounded and to understand all the components of the Emergency Services.

Next Meeting: Oct. 27th 1-3pm place to be announced.
Fire Advisory Committee
Meeting Minutes
October 27, 2010

Attendance: Doug Smith, Mark Hornshuh, Levi Eckhardt, Michelle Butler, Bill Kendrix, Chris Lake, Scott Sorenson, Ed Kirchhofer, Dennis Katz, Jay Tappan, Bill Benjamin, Ed Lindsey, Sandra Rogers

Welcome and Introductions

Old Business: Issues that Committee would like to see program address: Customer Service, Post Traumatic Stress, Ethics, Teamwork, Integrity, wellness, Safety, Disaster Management, Student Diversity, Pre-employment Testing.

- Customer Services: Advising students to take Management/Supervisor Development course for electives
- Post Traumatic Stress: Advising students to take Management/Supervisor Development course for electives
- Ethics, Teamwork and Integrity: Advising students to take Management/Supervisor Development course for electives
- Wellness and Safety: Recommending Health & fitness courses and OSHA class
- Disaster Management: Dennis Katz has a course on this.
- Student Diversity: Still needs work, trying to put together a cadet program at Jefferson High school.
- Program Marketing: Working on PCC to marketing program other than internally.
- Pre-employment testing: Have looked at other colleges on how they have designed this.

Diversity comments:
- Having the Fire Skills Academy on Campus is a marketing tool within itself.
- Preq’s are an obstacle for most ESL students.
- Use SFFA to attract neighborhood interest
- Possible using minority/bilingual students to teach Fire Safety Ed. At Local FDs
- Need to marketing or recruitment strategy to get community involved and a contingency plan.
- Possibly having an internship at Chief Kirchhofer’s Department.

Pre-employment testing:
- Equipment is an issue, if duplicating CPAT.
  - May think about putting together a very similar, look at what is done nationally.
    - Dept of Justice has guidelines. One issue is that it needs to be done indoors.
- Clark Comm. College may be putting this together.
- Look into written testing also.

In Progress:
- IFSAC accreditation
- Course Content and Outcomes upgrade
- Instructor Evaluations
- Program Review
- OSOT Crit program
- Instructor Pool
- Collaboration with other programs
- SOP’s for Fire Program
- Identify Hierarchy
- Recent Equipment purchase
- SFFA
Appendix – D

Job and Degree Survey of Graduates
Fall 2010
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### Job and Degree Data
#### From Fall 2010 Survey of Graduates

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you currently employed by a fire department?</td>
<td>22</td>
<td>4</td>
<td>N/A</td>
</tr>
<tr>
<td>2. Do you have other employment?</td>
<td>12</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>3. Does your fire department offer an incentive for college credit or an associate degree?</td>
<td>14</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>4. If employed as a Firefighter, what is your status?</td>
<td>Career 13</td>
<td>PT 0</td>
<td>Vol. 6</td>
</tr>
<tr>
<td>5. Have you completed an associate's in Fire Protection Technology?</td>
<td>Yes 6</td>
<td>No 20</td>
<td></td>
</tr>
<tr>
<td>6. Are you currently pursuing a degree in Fire Protection Technology?</td>
<td>Yes 14</td>
<td>No 10</td>
<td>N/A 2</td>
</tr>
<tr>
<td>7. Has course work toward the degree helped you secure a promotion?</td>
<td>Yes 1</td>
<td>No 10</td>
<td>Unknown 14</td>
</tr>
<tr>
<td>8. Purpose of taking Fire Science course</td>
<td>Entry 15</td>
<td>Promo. 7</td>
<td>Career Change 3</td>
</tr>
<tr>
<td>9. Did you find your job before completing the Fire Protection Technology education?</td>
<td>Yes 19</td>
<td>No 3</td>
<td>N/A 4</td>
</tr>
<tr>
<td>10. Do you feel the Fire Protection Technology program adequately prepared you for your job?</td>
<td>Yes 12</td>
<td>No 0</td>
<td>No Response 4</td>
</tr>
<tr>
<td>11. Did you utilize the services offered by Student Employment and Cooperative Education at PCC?</td>
<td>Yes 11</td>
<td>No 14</td>
<td>No Response 1</td>
</tr>
<tr>
<td>12. Did you meet with an Academic Advisor while attending classes at PCC?</td>
<td>Yes 18</td>
<td>No 6</td>
<td>No Response 2</td>
</tr>
</tbody>
</table>
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Appendix – E

Fire Protection Technology
CTE Outcomes Assessment
<table>
<thead>
<tr>
<th>1. Outcome</th>
<th>2. Maps to a Core Outcome?</th>
<th>3. Assessment Setting/Method</th>
<th>4. When will assessment take place?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Upon completion of the program the student will meet the fire-related performance objectives in NFPA 1001, Standard for Fire Fighter Professional Qualifications, Fire Fighter I and II, which include:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Perform duties safely and effectively in accordance with the fire department organizational structure</td>
<td>PC, CO</td>
<td>In FP 112 an observational check list (to be developed)</td>
<td>2011 to 2012</td>
</tr>
<tr>
<td>(b) Communicate effectively with the general public, crew members, supervisors, and other emergency responders.</td>
<td>PC, CO, CER</td>
<td>In FP 112 an observational check list (to be developed) Skill Event sheet 3 and 4</td>
<td>2011 to 2012</td>
</tr>
<tr>
<td>(c) Operate safely and effectively on an emergency scene</td>
<td>PC, CO, CT</td>
<td>In FP 111 and FP 112 by completion of Fire Academy Skills Booklets</td>
<td>2010 to 2011</td>
</tr>
<tr>
<td>(d) Perform safely and effectively as a member of a team during a rescue operation.</td>
<td>PC, CO, CT</td>
<td>In FP 201 an observational check list (to be developed) and/or Completion of Fire Academy Skills Booklets (to be decided)</td>
<td>2011 to 2012</td>
</tr>
<tr>
<td>(e) Perform prevention, preparedness, and maintenance activities related to reducing the loss of life and property due to fire through hazard identification, inspection, and response readiness.</td>
<td>PC, CO, CT, CER</td>
<td>In FP 111 and FP 112 by completion of Fire Academy Skills Booklets</td>
<td>2010 to 2011</td>
</tr>
</tbody>
</table>
2. Upon completion of the program the student will meet all the requirements of NFPA 472, Standard for Competencies of responders to Hazardous Material/Weapons of Mass Destruction Incidents which include:

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<tbody>
<tr>
<td>(a)</td>
<td>Recognize the presence of the hazardous materials/WMD, protect themselves, call for trained personnel, and secure the scene. (Awareness)</td>
</tr>
<tr>
<td>(b)</td>
<td>Respond to hazardous materials/WMD incidents for the purpose of protecting nearby persons, the environment, and property from the effects of the release. (Operations)</td>
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<table>
<thead>
<tr>
<th></th>
<th>PC, CO, CT, CER</th>
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</thead>
<tbody>
<tr>
<td>(a)</td>
<td>FP 123 will use the Oregon State Department of Public Safety Standards Training (DPSSST) task book for Hazardous Materials Awareness</td>
</tr>
<tr>
<td>(b)</td>
<td>FP 123 will use the Oregon State Department of Public Safety Standards Training (DPSSST) task book for Hazardous Materials Operations</td>
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</tbody>
</table>

3. Upon completion of the program the student will meet the application requirements set by the National Registry of Emergency Medical Technicians which include:

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<tbody>
<tr>
<td>(a)</td>
<td>Act in accordance with the ethical and professional medical standards of the entry level EMT Basic</td>
</tr>
<tr>
<td>(b)</td>
<td>Meet the academic eligibility requirements for taking both cognitive and practical State and National</td>
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<thead>
<tr>
<th></th>
<th>PC, SR, CO, CT, CER, CA</th>
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</thead>
<tbody>
<tr>
<td>(a)</td>
<td>In EMS 105 and 106: practical and cognitive final; professional behavior infraction count (3 infraction maximum)</td>
</tr>
<tr>
<td>(b)</td>
<td>In EMS 105 and 106: practical and cognitive final</td>
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</tbody>
</table>

Conducted by the EMS Department

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<tr>
<td></td>
<td>2010 to 2011</td>
</tr>
<tr>
<td></td>
<td>2010 to 2011</td>
</tr>
<tr>
<td>Certification examinations at the EMT Basic level</td>
<td></td>
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<tr>
<td>-----------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>(c) Demonstrate communication skills of the medical environment in order to develop and maintain professional client relationships at the EMT Basic level</td>
<td>PC, SR, CO, CT, CER, CA</td>
</tr>
<tr>
<td>(d) Demonstrate the professional and technical skill set necessary to meet the EMT Basic standard of care in a safe manner under diverse conditions.</td>
<td>PC, SR, CO, CT, CER, CA</td>
</tr>
</tbody>
</table>

5. For Programs that are beneficiaries of Perkins funding: Identify assessments that will comprise the TSA. The program is exploring using the Skills Booklet and Task Books for the Technical Skills Assessment. The Skills Booklet and Task Book are comprised of job performance requirements (JPR) which are statements that describe a specific job task, lists the items necessary to complete the task, and defines measurable or observable outcomes and evaluation areas for the specific task.
PRESENT FIRE SAFETY INFORMATION TO STATION VISITORS OR SMALL GROUPS

Task/Skill: DPSST 6.5.2 Requirement and NFPA 1001-2008 edition, Section 6.5.2, JPR

Skill SHEETS: 20-II-3 (p. 997)

Required Candidate Equipment: Station Uniform

Required Instructor Equipment: Lesson outline, media equipment, and instructional material

Read To Student:

At this station, you will present a fire safety information program, given a lesson outline, media equipment, and instructional materials. You will be required to present the assigned topic according to the lesson outline in a manner appropriate for the audience.

This is not a timed event, but you should complete the assignment in a reasonable time. To pass this station, you must successfully complete 100% of the critical steps (steps in **BOLD**) and a majority of the non-critical steps (steps in *italics*).

P-Pass / F-Fail

<table>
<thead>
<tr>
<th>1st Attempt</th>
<th>2nd attempt</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Determined audience and lesson topic to be taught.</strong></td>
</tr>
<tr>
<td>2.</td>
<td><strong>Determined location, date, and time for presentation.</strong></td>
</tr>
<tr>
<td>3.</td>
<td>Properly prepared to deliver presentation.</td>
</tr>
<tr>
<td>4.</td>
<td>Introduced self and topic.</td>
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<tr>
<td>5.</td>
<td><strong>Followed lesson outline.</strong></td>
</tr>
<tr>
<td>6.</td>
<td>Familiar with equipment and material used to present topic.</td>
</tr>
<tr>
<td>7.</td>
<td>Returned equipment, material, and lesson outline after presentation.</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Recorded information according to policy.</strong></td>
</tr>
</tbody>
</table>

Candidate’s Name: ___________________________ Station: P ___ F ___ P ___ F ___

Evaluator’s Signature: ___________________________

1st Attempt 2nd attempt