

# 2017-2018 Catalog Addendum

FRCC apologizes for any inconvenience due to the following changes.

## **Academic Matters: Transferring Credit to FRCC**

The 12th bullet should read: There is no limit to the amount of credit transferred into FRCC; however, no more than 75% of degree or certificate requirements may be completed using transfer credit. At least 25% of degree or certificate requirements must be earned at FRCC.

**New Content: Student Responsibilities & Code of Conduct: HEOA Peer to Peer File Sharing Requirements & Digital Millennium**  
The new catalog link: <http://frontrange.smartcatalogiq.com/en/2017-2018/Catalog/Student-Responsibilities-Code-of-Conduct/Academic-Integrity/HEOA-Peer-to-Peer-File-Sharing-Requirements-and-Digital-Millennium-Copyright-Act>

**HEOA** content is also now listed in the **Legal Notices** section. This link will take you to our website: <https://www.frontrange.edu/disclaimers-and-legal-notice/higher-education-opportunity-act-disclosures>

## **Course Added: CHE 102 Intro to Chemistry II with Lab (5)**

Focuses on introductory organic and biochemistry (sequel to Introduction to Chemistry I). This course includes the study of hybridization of atomic orbitals for carbon, nomenclature of both organic and biochemical compounds, physical and chemical properties of various functional groups of organic chemistry, and physical and chemical properties of biochemical compounds along with their biochemical pathways. Laboratory experiments are included. This course is one of the Statewide Guaranteed Transfer courses. GT-SC1. 90 Contact Hrs (60 lecture hours, 30 lab hours)

## **Computer Information Systems**

CIS 220, CIS 232 and CIS 263 have been deleted from the catalog.

## **CIS Database Administration Degree**

CIS 145 is no longer listed in the Application Course section, as it is a Core Requirement. Electives section now states: Students may select a minimum of 12 credits from any combination of ACC, BUS, CIS, CNG, CSC, CWB, MAR or MAN courses to fulfill remaining degree requirements.

## **CIS Web Developer Certificate**

MGD 111 and MGD 112 have been removed as requirements. Added to the Electives section: Select 3 credits from any combination of CWB, MGD, CIS, CSC, and/or CNG courses to fulfill remaining certificate requirements.

## **CIS Web Developer Degree**

CIS 145 is no longer listed in the Application Course section, as it is a Core Requirement. MGD 111 and MGD 112 have been removed as requirements. CSC 217, 234, 240, 241 and 246 have been added to the Object-Oriented Programming Course section.

## **New Course: CON 110 Intro to Construction, Part 1 (4)**

Explores the expanding array of careers within the construction industry. Students will be exposed to the construction industry through job site tours, hands-on experience, and classroom activities. Math and science application will be established through the academic integration of jobsite technical skills and classroom theory. 90 Contact Hrs.

## **New Course: CON 111 Intro to Construction, Part 2 (4)**

Explores additional careers within the construction industry. Students will be exposed to the construction industry through job site tours, hands-on experience, and classroom activities. Math and science application will be established through the academic integration of jobsite technical skills and classroom theory. 90 Contact Hrs.

## **New Course: CON 280 Internship (2)**

Provides students with the opportunity to supplement coursework with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor. 90 Contact Hrs.

## **CSC Course Pre-Co-requisite/Recommended Prep. Update**

**CSC 160:** Recommended Preparation: CSC 119 or MAT 201.  
**CSC 161:** Recommended Preparation: CSC 160 and MAT 121.  
**CSC 165:** Recommended Preparation: CSC 161 and MAT 201.  
**CSC 217:** Recommended Preparation: CSC 119.  
**CSC 225:** Recommended Preparation: CSC 161.  
**CSC 230:** Recommended Preparation: CSC 119 or CSC 160.  
**CSC 233:** Recommended Preparation: CSC 119 or CSC 160.  
**CSC 234:** Recommended Preparation: CSC 119 or CSC 160.  
**CSC 241:** Recommended Prep: CSC 240 or CSC 160 or CSC 233.  
**CSC 246:** Recommended Preparation: CSC 240 or CSC 119 or CSC 160 or CSC 233.  
**CSC 252:** Recommended Preparation: CIS 145 or CSC 220

## **CSC 160. Title revised to: Computer Science I: (Language)**

## **EGG 211 Engineering Mechanics I - Statics (3)**

Revised Prerequisites: PHY 211 and MAT 201.  
Recommended Preparation was deleted.

## **Revised Description: EGT 143 Civil/Survey Drafting I (3)**

Focuses on Civil and Survey drafting skills necessary to produce document sets of land surveys/plats, legal descriptions, site layout, plan, profile & alignments, pipe layouts, contour maps and earth-work.

## **Revised Description: EGT 243 Civil/Survey Drafting II (3)**

Focuses on advanced Civil and Survey drafting skills. Students will create computer aided drawings using traverses, legal descriptions, horizontal and vertical curves, land sections, and coordinates. Emphasizes field note interpretation.

**New Course: EIC 110 Electrical Installations I (4)**

Covers residential building wiring in conformance with the current National Electrical Code and local codes using nonmetallic cable. Emphasizes proper use of tools and safety. 90 Contact Hrs.

**New Course: EIC 280 Internship (2)**

Provides students with the opportunity to supplement course-work with practical work experience related to their educational program. Students work under the immediate supervision of experienced personnel at the business location and with the direct guidance of the instructor. 90 Contact Hrs.

**Forestry Technology Degree**

NRE 204 has been added to the Electives List. The total number of Required Courses has been adjusted to 34. The total number of Elective Courses has been adjusted to 9. Required General Education Courses remain at 17.

**Forestry Technology Degree and Natural Resources Degree**

The statement, "Select one of the following (OUT) courses:" has been deleted from the Electives List.

**Forestry Technology Degree and Wildlife Technology Degree**

The General Education Requirements have been updated in both degrees on pages 93 and 94 to reflect Program Requirements.

**Forestry, Wildlife and Natural Resources All 7 Certificates:**

The statement, "NRE 280 can be taken for 1-6 credits. In addition, students may not apply more than 3 credits in Internship and/or Independent Study coursework to any Certificate pathway in Forestry, Wildlife and Natural Resources" has been added.

**FSW 143 S-212 Wildfire Chain Saws (2)**

The correct Contact Hours is 37.5 Contact Hrs.

**Horticulture & Landscape Technologies Degree**

BIO 111 has been added to the Natural & Physical Sciences General Education Requirements section as an option

**HLT 232 Landscape Design III (3)**

Revised Prerequisites: HLT 132 and HLT 230

**IND 114 Space Planning**

Prerequisite/Corequisite: AEC 101 may be taken concurrently.

**IND 116 Estimating Interior Materials**

Prerequisite: AEC 101 and IND 200.

**IND 213 Portfolio Presentations**

Prerequisite: CAD 224. Prerequisite/Corequisite: IND 220.

**Medical Office Technology: New Codes**

Medical Billing Specialist Certificate: F\_CER\_MEDB  
Medical Office Specialist Certificate: F\_CER\_MOSS  
Medical Office & Billing Specialist Degree: F\_AAS\_MOBS

**Network Technologies Degree Updates**

CNG 203 has been added to the Electives List. Electives have been reduced from 15 to 12 credits and Electives from CNG courses has increased to 6-7 credits. CIS 232 has been deleted from the Catalog and Master File.

**NRE 114 Colorado Wildlife (3)**

Contact Hours are 67.5 instead of 60.

**Nursing Advanced Placement-Bridge Program LPN to ADN**

Mathematics Requirements update: MAT 103 or any GT MAT Course

**NUA 101 Certified Nurse Aide Health Care Skills**

Contact Hours are now 75.

**NUA 170 Nurse Aide Clinical Experience**

Contact Hours are now 30.

**NUA 171 Advanced Nurse Aide Clinical**

Contact Hours are now 30.

**NUA 174 Acute Care Nurse Aide Skills**

Contact Hours are now 22.5.

**Patient Care Technician Certificate**

Total credits is 25 instead of 26.

**New Course: PLU 120 Residential Plumbing (4)**

Enables the student to design and install residential plumbing systems. Students work in the shop installing systems and in the classroom designing systems. Includes the application of code requirements, fuel piping systems, water piping systems, rough-in measurements and installation practices. Also covers installation of components, such as water heaters, tub/shower valves, a variety of shower enclosures and other fixtures. Offered fall semester only. 90 Contact Hrs.

**New Course: PLU 282 Internship (2)**

Students with prior course work in a specific area are eligible for internship. The internship provides the student an opportunity to apply their course studies. 90 Contact Hrs.

**STE 100 Fundamentals of Surgical Technology (6)**

Emphasizes the theoretical basis of surgical technology practice. Prerequisites: BIO 201, BIO 204, ENG 121 or ENG 122 or ENG 131, HPR 208, and MAT 107 or higher. Recommended Preparation: PSY 235 and BIO 202. 90 Contact Hours.

**New Course: WEL 150 AWS Qualification Testing (1)**

Provides students with the opportunity to complete a welding qualification test in accordance with an American Welding Society code or specification. 22.5 Contact Hrs.

**Wildlife Certificate**

Required Courses: NRE 114 (3) has been added. Electives: NRE 230 (3) has been added.

**WST 225 Title Change: Women and Social Action**

Replaces: Women and Social Change

---

## Changes since our last Addendum on May 18, 2017

### COM 115 and COM 125

Prerequisite ENG 090 is no longer offered at FRCC.

### CIS Database Administration Degree

CIS 145 is no longer listed in the Application Course section, as it is a Core Requirement. **Database Administration Electives were revised to include the Advanced Database Electives, eliminating the Advanced Database Electives section.** Electives section now states: Students may select a minimum of 12 credits from any combination of ACC, BUS, CIS, CNG, CSC, CWB, MAR or MAN courses to fulfill remaining degree requirements.

### HIT 105 Principles of Healthcare Reimbursement (3)

Prerequisite HIT 101 has been deleted.

### Legal Notices

Front Range Community College prohibits all forms of discrimination and harassment including those that violate federal and state law, or the State Board for Community Colleges and Occupational Education Board Policies 3-120 and 4-120. The College does not

discriminate on the basis of sex/gender, race, color, age, creed, national or ethnic origin, physical or mental disability, veteran status, pregnancy status, religion, genetic information, gender identity, or sexual orientation in its employment practices or educational programs and activities. Front Range Community College will take appropriate steps to ensure that the lack of English language skills will not be a barrier to admission and participation in vocational education programs.

The College has a designated Paul M. Meese, Executive Director, Organizational Development and Human Resources with the responsibility to coordinate the college's civil rights compliance activities and grievance procedures under Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, and Title II of the Americans with Disabilities Act. If you have any questions, please contact (303) 678-3707, or paul.meese@frontrange.edu or mail to 2190 Miller Drive, Longmont, CO, 80503.

You may also contact the Office for Civil Rights, U.S. Department of Education, Region VIII, Federal Office Building, 1244 North Speer Boulevard, Suite 310, Denver, CO 80204, telephone (303) 844-3417.

---

## Changes since our last Addendum on August 1, 2017

### Legal Notices

"Higher Education Opportunity Act Disclosures" is now titled: "Higher Education Opportunity Act (Consumer Information)". The Higher Education Opportunity Act (HEOA) requires FRCC to provide specific consumer information to prospective and current students. FRCC will provide a paper copy of the information related to these disclosures upon request.

New section added to Legal Notices:

#### Student Services Transaction Identification

For each student services transaction, students are required to verify their identification before any service is provided. Examples of identification can be:

1. A series of questions unique to that particular student;
2. Producing a college identification card;
3. Producing a high school identification card; or
4. Producing some other form of identification that is considered a "secure and verifiable document" which means it must be issued by a state or federal jurisdiction or recognized by the United State Government, and that it is verifiable by federal or state law enforcement, intelligence, or homeland security agencies

### New Course: CON 289 Construction Capstone

Provides a demonstrated culmination of learning within a given program of study.

### DEA 182 Clinical Internship II & Seminar (2)

Credits changed to 2 and Contact Hours changed to 90.

### DEA 183 Clinical Internship III (6)

Credits changed to 6 and Contact Hours changed to 270.

**New Course: EIC 289 Capstone** Provides a demonstrated culmination of learning within a given program of study.

### ENG 221 Creative Writing I (3)

New Description: Teaches techniques for creative writing. Explores imaginative uses of language through creative genres (fiction, poetry, and other types of creative production such as drama, screenplays, graphic narrative, or creative nonfiction) with emphasis on the student's own unique style, subject matter and needs.

### MAT 266 Differential Equations with Linear Algebra (4)

New Description: Explores ordinary differential equations with an introduction to select topics in linear algebra. Course covers first and second order differential equations, series solutions, Laplace transforms, linear algebra, eigenvalues, first order systems of equations, and numerical techniques for solving differential equations.

### MUS 167 Music Business I (3)

New Description & Contact Hours: Provides a foundational overview of the current, historic, and projected business practices in the music entertainment industry. Course provides opportunities to gain an understanding of the music entertainment industry including copyright, labels, publishing, licensing, distribution, marketing, finance, legal considerations, and current and future opportunities. 45 Contact Hours.

### MUS 265 Live Audio Engineering (3)

Prerequisite is MUS 163 instead of MUS 164.

Continued on next page

**New Course: OTE 101 Quality Assurance Precision Optics (3)**

Introduces precision optics fabrication, as well as quality assurance practices required to identify, inspect, and measure optical components. Hands-on labs will provide the opportunity to apply concepts covered in the course. 67.5 Contact Hours. Coreq: MAT 108

**New Course: OTE 105 Fabrication Methods Precision Optics (4)**

Provides a basic understanding of the methodology and processes used in the fabrication of precision optical elements. Emphasis is placed on the selection and use of tooling, materials and equipment used in the manufacturing process with specific examples. 90 Contact Hours. Prereq: MAT 108

**New Course: OTE 130 Metrology of Optical Systems (3)**

Provides students with a basic understanding of the optical system measurement and testing techniques used to determine overall quality of an optical system's performance. It presents a comprehensive review of measurement practices essential to ensuring the quality of optical systems. 67.5 Contact Hours Prereq: MAT 108

**PHT 111 Introduction to Pharmacy (3) Revised Description**

Introduces the practice of pharmacy and the work that pharmacy technicians perform. The course provides an overview of careers within the field; educational, certification and accreditation requirements; ethical and legal responsibilities; pharmacology; as well as a variety of issues that touch on attitudes, values and beliefs of successful pharmacy technicians.

**New Course: PLU 289 Plumbing Capstone**

Provides a demonstrated culmination of learning within a given program of study.

**Revised: Surgical Technology Program Admissions Process Steps to Apply**

1. Attend Mandatory Information Session at the WC  
You must attend a Surgical Technology Program Information Session before you register for the program.
  - Date/Time: Second Wednesday of the month, 6:00 p.m. - 7:00 p.m. (no sessions in December or July)
  - Location: Westminster Campus, Room A0211.  
See campus map and get directions. See Level A map.
2. Apply to FRCC
3. Complete Prerequisite Coursework

A minimum GPA of 2.75 in these seven courses is required.

- The following prerequisite coursework must be completed before applying to the program, with a letter grade of "C" or better
  - o ENG 121 English Composition I
  - o MAT107 Career Mathematics or higher
  - o HPR 208 Medical Record Terminology (2 credits)
  - o BIO 201 Human Anatomy & Physiology I (4 credits with lab)\*
  - o BIO 204 Microbiology (4 credits with lab)\*
- The following courses can be in progress when applying to the STE program
  - o BIO 202 Human Anatomy & Physiology II (4 credits with lab)\*
  - o PSY 235 Human Growth and Development\*

If any prerequisite coursework was taken outside of the FRCC system, you must have your transcripts officially evaluated through the FRCC Registrar's Office.

- All prerequisites must be transferred to your FRCC transcript before applying.
- Evaluations take up to 30 days to complete after Registrar's Office receives the official transcript and the Transfer Credit Evaluation Form. Be sure to specify AAS in Surgical Technology as your degree plan.
- To be considered official, transcripts may not be issued to the student; transcripts must be mailed directly from the previous college to the FRCC Registrar's Office.

**Additional Requirements**

All Allied Health Students who are in programs that have a Clinical Rotation requirement must have proof of the following, to go to their clinical site:

- TB Test (valid for one year and must remain current throughout the program)
- Tdap (within 10 years)
- Hepatitis B Series (three shots) or proof of immunity via a titer
- Measles, Mumps Rubella (MMR, two shots or proof of immunity via a titer)
- 2 Varicella a.k.a. Chickenpox (proof of vaccination, immunity via a titer or disease)
- Seasonal influenza vaccine October – March
- American Heart Association BLS Provider CPR cards (valid for two years), except EMS which follows the Colorado State guidelines for CPR
- Passing a background check and drug test through FRCC will also be required

Continued on next page



## Changes since our last Addendum on October 6, 2017

### Chemistry A.S. Degree with Designation

**Additional Required Courses** should be:

MAT 202 Calculus II	5
MAT 203 Calculus III	4
<b>PHY 211 Physics: Calculus-Based I w/Lab</b>	<b>5</b>
<b>PHY 212 Physics: Calculus-Based II w/Lab</b>	<b>5</b>
CHE 211 Organic Chemistry I w/Lab	5
CHE 212 Organic Chemistry II w/Lab	5
Total Credit Hours:	29

### New Course: OTE 100 Fundamentals of Lights & Lasers (4)

Introduces the fundamentals of light, optics and lasers. This course covers the nature and properties of light (such as energy, amplitude, wavelength, frequency, period, phase, propagation). This course also addresses geometrical optics (reflection, refraction, imaging, thin lens formula, lens maker's equation), wave optics (interference, diffraction, polarization), and the basic principles and practical applications of lasers. 90 Contact Hours. 12.5.17

### New Course: OTE 102 Intro Manufacturing Tech (GDT/SPC/Print Reading/Lean) (3)

Evaluates topics and practices central to the optics manufacturing industry. This course covers major topics in optics manufacturing technology including reading optical engineering drawings/prints, lean manufacturing, statistical process control, and geometric dimensioning and tolerancing for optics, focusing on the unique practices and toolsets within each. 67.5 Contact Hours. 12.5.17

**New Course: OTE 103 Laboratory Operations (3)** Evaluates topics and practices central to working in laboratory and clean-room environments within the optics manufacturing industry, with emphasis on manufacturing, integration, and testing. Major topics include lab safety, lab organization and operations, and laboratory soft skills. Specific subjects within each of these topics are examined independently, focusing on the unique practices and toolsets within each and their applicability to lab operations in optics manufacturing. 67.5 Contact Hours. 12.5.17

### New Course: OTE 104 Optics: Electronic Instrumentation (3)

Introduces the basic electronic instrumentation skills needed when working in optics and photonics labs and related fields. Covers the basic components used in AC and DC electronics, optical detectors and photonic 'circuits', common instruments and interfaces used in test and troubleshooting of photonic systems, and basic data analysis tools and techniques. 67.5 Contact Hours. 12.5.17

### New Course: OTE 160 Advanced Topics Optics & Photonics

**(3)** Provides an understanding of thin film optical coatings and fiber optics. Topics include the theory of propagation of light through optical thin films, use of modern design tools, overview of manufacturing techniques, instrumentation, technologies and equipment for thin film deposition, applications of thin film optical coatings, the theory of propagation of light through optical fibers, applications of fiber optics, handling of optical fiber and fiber components, and basic manufacturing concepts for fiber optics and components. 67.5 Contact Hours. 12.5.17

### New Certificate: Optic Technology

Campus: Boulder County Campus

This award has been approved by the Higher Learning Commission. It has also been submitted to the Department of Education (ED), but is currently under review and not eligible for financial aid at this time. Upon ED approval, this statement will be removed and a note placed in our Catalog Addendum noting the date of financial aid approval.

This certificate prepares students for entry-level positions dealing the production of precision optics for use in cameras, projectors, eye wear, microscopes, telescopes, domestic appliances and binoculars. Students will learn the necessary techniques to produce precision spherical and plane optics to specifications, corrects lens/prism surfaces, and fabricate optics multiple uses, from 3D-projector technology, to national defense applications.

#### Required Courses

OTE 100 Fundamentals of Lights & Lasers	4
OTE 101 Quality Assurance of Precision Optics	3
OTE 102 Intro to Manuf Tech (GDT/SPC/Print Reading/Lean)	3
OTE 103 Laboratory Operations	3
OTE 104 Optics: Electronic Instrumentation	3
OTE 105 Fabrication Methods for Precision Optics	4
OTE 130 Metrology of Optical Systems	3
OTE 160 Advanced Topics in Optics & Photonics	3
Total Credit Hours:	26

#### Mathematics

Select one course from below:

MAT 108 Technical Mathematics	4
MAT 122 College Trigonometry	3
MAT 166 Pre-Calculus	5
MAT 201 Calculus I or higher	5
Total Credit Hours:	3-5

**Total Credit Hours: 29-31**

12.5.17

### New Certificate: Peace Officers Standards & Training

Campus: Larimer Campus **This award has been approved by the Higher Learning Commission. It has also been submitted to the Department of Education (ED), but is currently under review and not eligible for financial aid at this time.**

#### Required Courses

LEA 101 Basic Police Academy I	6
LEA 102 Basic Police Academy II	12
LEA 105 Basic Law	8
LEA 106 Arrest Control Techniques	3
LEA 107 Law Enforcement Driving	3
LEA 108 Firearms	3
EMS 115 Emergency Medical Responder	3
PED 112 Fitness Center Activity III	1

**Total Credit Hours: 39**

12.5.17

**New Course: LEA 101 Basic Police Academy I (6)** Conforms to POST standards and Colorado state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on simulating actual situations utilizing both a lecture and laboratory mode of learning. 90 Contact Hours. 12.5.17

Continued on next page

**New Course: LEA 102 Basic Police Academy II (12)**

Conforms to POST standards and state certification requirements as well as the basic skills and knowledge to perform the entry level duties of a peace officer. Emphasis will be on simulating actual situations utilizing a lecture and laboratory mode of learning.  
180 Contact Hours. 12.5.17

**New Course: LEA 105 Basic Law (8)**

Conforms to the Colorado POST standards and state certification requirements as well as the basic skills and knowledge necessary to perform the entry level duties of a peace officer. Emphasis will be on United States Constitution, arrest, search and seizure, interrogation and confessions, rules of evidence, Colorado Criminal Code, Colorado Children's Code, Liquor Code and controlled substances.  
120 Contact Hours. 12.5.17

**Criminal Justice AAS Degree**

Campus: Larimer Campus Code: F\_AAS\_CRJ7

**Required Courses**

- CRJ 110 Intro to Criminal Justice 3
- CRJ 209 Criminal Investigations I 3
- LEA 101 Basic Police Academy I 6
- LEA 102 Basic Police Academy II 12
- LEA 105 Basic Law 8
- LEA 106 Arrest Control Techniques 3
- LEA 107 Law Enforcement Driving 3
- LEA 108 Firearms 3
- EMS 115 Emergency Medical Responder 3
- PED 112 Fitness Center Activity III 1

**Total Credit Hours: 45**

**General Education Requirements****English**

Select one course (3 credits) from below:

- ENG 121 English Composition I 3
- ENG 122 English Composition II 3

**Total Credit Hours: 3**

**Communication**

Select one course (3 credits) from below:

- COM 115 Public Speaking 3

**Total Credit Hours: 3**

**Arts & Humanities**

- PHI 112 Ethics 3

**Total Credit Hours: 3**

**Mathematics**

- MAT 107 Career Mathematics 3 or higher

**Total Credit Hours: 3**

**Social and Behavioral Sciences**

Select one course (3 credits) from below:

- SOC 101 Introduction to Sociology I 3
- PSY 101 General Psychology I 3
- POS 111 American Government 3

**Total Credit Hours: 3**

**Required General Education Courses**

**Total Credit Hours: 15**

**Total Credit Hours: 60**

12.5.17

**New Course: LEA 106 Arrest Control Techniques (3)**

Exploration of the skills, knowledge and abilities necessary to effectively maintain control of a suspect when making an arrest. Explains the continuum of force and de-escalation of force.  
67.5 Contact Hours. 12.5.17

**New Course: LEA 107 Law Enforcement Driving (3)**

Exploration of the skills, knowledge and abilities required for operation of a law enforcement vehicle. Emphasizes defensive driving. Enables students to demonstrate skills by driving a vehicle under simulated conditions. 67.5 Contact Hours. 12.5.17

**New Course: LEA 108 Firearms (3)**

Discusses the skills, knowledge and abilities necessary to safely use police firearms. Students will demonstrate skills by firing weapons on a firing range. The student will demonstrate basic safety techniques and will be able to explain the firearms role within the continuum of force. 67.5 Contact Hours. 12.5.17

**New Certificate: Fundamentals of Public Safety Dispatch**

Campus: Westminster Campus

Initial and ongoing training is an essential component of a 911 dispatcher's career. And the most significant training often occurs within a 911 dispatcher certification program, either through the state, through a national association, or through a combination of the two.

While Colorado currently does not require certification to work as an emergency dispatcher, completing the Fundamentals of Public Safety Dispatch (PSD) certificate will assist students in understanding the foundations of the criminal justice system, policing, stress management, communication and various components of understanding human behavior.

**Requirements**

Admission Requirements: Students must pass a general background check in order to be accepted in the program, be at least 18 years old prior completing the Fundamentals in Public Safety Dispatch (PSD) certificate, and have earned their high school diploma or GED.

**Required Courses**

- CRJ 110 Intro to Criminal Justice 3
- CRJ 125 Policing Systems 3
- PSY 101 General Psychology I 3
- PSY 116 Stress Management 3

**Total Credit Hours: 12**

**Elective Course**

Select one course (3 credits) from below:

- SOC 231 Sociology of Deviant Behavior 3
- PSY 226 Social Psychology 3

**Total Credit Hours: 3**

**Total Credit Hours: 15**

12.5.17

### **New Certificate: Public Safety Dispatch**

Campus: Westminster Campus

**This award has been approved by the Higher Learning Commission. It has also been submitted to the Department of Education (ED), but is currently under review and not eligible for financial aid at this time.**

Becoming a 911 operator involves preparing for employment by meeting minimum requirements, which usually involves being at least 18 years old and possessing a high school diploma or GED. Some agencies require candidates to also possess a valid driver's license.

Many individuals who are interested in pursuing a career in emergency dispatch choose to complete a college program in a closely related field. Completing the Public Safety Dispatch (PSD) certificate can provide considerable knowledge of the criminal justice system, communications, emergency management, and public safety protocols – all of which are highly relevant to working as a 911 dispatcher.

As a dispatcher, strong listening skills, empathy, the ability to multi-task, leadership skills, problem-solving skills, typing skills, and proficiency in computer-aided dispatch software. The Public Safety Dispatch (PSD) certificate provides students hands-on training through internships in communication centers and through an Emergency Dispatch course (CRJ 201) where students will use the most recent and industry relevant curriculum developed and taught by industry experts.

In most cases, a high school diploma or the equivalent is enough for entry-level dispatcher positions, but some employers may not even require this level of education. In other cases, certain emergency response agencies may favor applicants who possess a college degree.

911 dispatchers need to possess a wide range of job-specific skills, so taking relevant electives outside of the major area of study can gain you experience. For example, a criminal justice major could benefit from computer courses, or a computer science major could benefit from liberal arts or communications courses. These various areas of study are represented in the Fundamentals of Emergency Dispatch.

The Bureau of Labor Statistics (BLS) reports that candidates with a two- or four-year degree in criminal justice, communications or computer science may have an advantage when applying for jobs. An associate's degree can help students gain valuable skills to help them excel after graduation.

For individuals with aspirations of advancing in the field of emergency communications, a college degree may better facilitate career advancement. In addition, many agencies accept a formal educational program as a substitution for experience, on a year-by-year basis, thereby allowing many individuals to advance at a faster pace into supervisory positions, or even qualify for entry-level jobs that stipulate experience requirements.

It is not always necessary to have a degree to work as a dispatcher, but an associate's or bachelor's degree may be preferred by employers. A degree in criminal justice, communications or computer science are some of the preferred degrees in this field. Certification may be required depending on the state.

Many individuals who are interested in pursuing a career in emergency dispatch choose to complete a college program in a closely related field. A degree program can provide considerable knowledge of the criminal justice system, communications, emergency

management, and public safety protocols – all of which are highly relevant to working as a 911 dispatcher.

#### **Requirements**

Prerequisite: Students must have successfully completed the Fundamentals of Public Safety Dispatch (PSD) certificate prior to admission into this program and have passed a background check.

#### **Required Courses**

CRJ 110 Intro to Criminal Justice 3  
CRJ 125 Policing Systems 3  
EMS 115 Emergency Medical Responder 3  
PSY 101 General Psychology I 3  
PSY 116 Stress Management 3  
CRJ 280 Internship 1  
CRJ 201 Emergency Dispatching 5

**Total Credit Hours: 21**

#### **Elective Course**

Select one course (3 credits) from below:

PSY 249 Abnormal Psychology 3  
CRJ 257 Victimology 3  
COM 220 Intercultural Communication 3

**Total Credit Hours: 3**

#### **Psychology/Sociology Elective**

Select one course (3 credits) from below:

SOC 231 Sociology of Deviant Behavior 3  
PSY 226 Social Psychology 3

**Total Credit Hours: 3**

**Total Credit Hours: 27**

12.5.17

---

## **Changes since our last Addendum on December 5, 2017**

### **New Certificate: Construction Essentials**

Campus: Larimer Campus Code: F\_CER\_CON3

The Construction Trades certificates prepare entry-level employees to enter into an apprenticeship or employer training program.

Through exploration of the construction trades, a student will determine whether the trades are the career they wish to pursue as well as which trade to continue their training in. Certificate completion demonstrates to employers that job applicants are dedicated to their chosen trade, understand the process of construction, have been properly trained in OSHA safety standards, as well as the use of tools, and print reading. In addition to proficiency in essential entry-level skills, instruction in professionalism is embedded in all courses resulting in certificate completers with skills for learning, work ethic, and the attitudes that employers value most. Strong communication and support between industry partners, secondary partners, and FRCC ensures that curriculum is up-to-date and provides an employment advantage to certificate holders.

#### **Required Courses**

CON 110 Introduction to Construction, Part 1 4  
OSH 127 10-HR Construction Industry Standards 1

**Total Credit Hours: 5**

12.6.17

### **New Certificate: Construction Fundamentals**

Campus: Larimer Campus Code: F\_CER\_CON4

The Construction Trades certificates prepare entry-level employees to enter into an apprenticeship or employer training program.

Through exploration of the construction trades, a student will determine whether the trades are the career they wish to pursue as well as which trade to continue their training in. Certificate completion demonstrates to employers that job applicants are dedicated to their chosen trade, understand the process of construction, have been properly trained in OSHA safety standards, as well as the use of tools, and print reading. In addition to proficiency in essential entry-level skills, instruction in professionalism is embedded in all courses resulting in certificate completers with skills for learning, work ethic, and the attitudes that employers value most. Strong communication and support between industry partners, secondary partners, and FRCC ensures that curriculum is up-to-date and provides an employment advantage to certificate holders.

#### **Required Courses**

CON 110 Introduction to Construction, Part 1 4  
OSH 127 10-HR Construction Industry Standards 1  
CON 111 Introduction to Construction, Part 2 4  
CON 280 Internship 2  
OR CON 289 Capstone: Construction 2

**Total Credit Hours: 11** 12.6.17

### **New Certificate: Electrical Fundamentals**

Campus: Larimer Campus Code: F\_CER\_PLU5

The Construction Trades certificates prepare entry-level employees to enter into an apprenticeship or employer training program.

Through exploration of the construction trades, a student will determine whether the trades are the career they wish to pursue as well as which trade to continue their training in. Certificate completion demonstrates to employers that job applicants are dedicated to their chosen trade, understand the process of construction, have been properly trained in OSHA safety standards, as well as the use of tools, and print reading. In addition to proficiency in essential entry-level skills, instruction in professionalism is embedded in all courses resulting in certificate completers with skills for learning, work ethic, and the attitudes that employers value most. Strong communication and support between industry partners, secondary partners, and FRCC ensures that curriculum is up-to-date and provides an employment advantage to certificate holders.

#### **Required Courses**

CON 110 Introduction to Construction, Part 1 4  
OSH 127 10-HR Construction Industry Standards 1  
CON 111 Introduction to Construction, Part 2 4  
PLU 282 Internship 2  
OR PLU 289 Capstone: Plumbing 2

**Total Credit Hours: 11** 12.6.17

### **New Certificate: Electrical Fundamentals**

Campus: Larimer Campus Code: F\_CER\_ELC2

The Construction Trades certificates prepare entry-level employees to enter into an apprenticeship or employer training program.

Through exploration of the construction trades, a student will determine whether the trades are the career they wish to pursue as well as which trade to continue their training in. Certificate completion demonstrates to employers that job applicants are dedicated to their chosen trade, understand the process of construction, have been properly trained in OSHA safety standards, as well as the use of tools, and print reading. In addition to proficiency in essential entry-level skills, instruction in professionalism is embedded in all courses resulting in certificate completers with skills for learning, work ethic, and the attitudes that employers value most. Strong communication and support between industry partners, secondary partners, and FRCC ensures that curriculum is up-to-date and provides an employment advantage to certificate holders.

#### **Required Courses**

CON 110 Introduction to Construction, Part 1 4  
OSH 127 10-HR Construction Industry Standards 1  
CON 111 Introduction to Construction, Part 2 4  
EIC 280 Internship 2  
OR EIC 289 Capstone 2

**Total Credit Hours: 11** 12.6.17

---

## **Changes since our last Addendum on December 6, 2017**

**Course Change:** MGD 152 is replaced by:

#### **MGD 142 Digital Animatics (3)**

Introduces the steps followed by professional animators and game designers for producing media in a digital environment. Students learn the foundational skills of planning, organizing, storyboards, and pre-visualization techniques necessary to create animated stories. Students will also study the history of animation and game design. 67.5 Contact Hours. 2.7.17