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 **Spring 2022**

**Agriculture and Natural Resources Department**

**NR 133**

**Introduction to Chainsaw**

**Syllabus**

**Course Name: NR 133 Section #: 59171 Units: 0.5** Credit/No Credit

**Instructor:** Roberts, Rodnie

**Email:** wildland@valleyrop.net

**Phone:** 559-876-2122

**Office Hours:** By Appointment Only

**Course Prerequisites:** None

**Textbook and Required Materials:**

1. Fallers’ & Buckers’ Handbook Practical methods for falling and bucking timber safely. WBC of British Columbia **(Provided)**
2. Chainsaw Operator’s Manual, Chainsaw Safety, Maintenance and Crosscutting Techniques. ISBN 9780643103825 **(Recommended)**
3. National wildfire coordinating group. 2004. Firefighter training, S-212 National interagency fire center. Boise, ID. **(Recommended)**

**Class Meeting Time and Place:** Thursday, 02:20PM-02:45PM

**Orientation:** January 11, 2022 in FEM 4.

**Course Description:** Provides introductory level training for the use of chain saws in the forestry and natural resources field. Emphasis is on defining and applying chain saw safety standards, maintenance and function of personal protective equipment (PPE), identification of chain saw parts, maintenance, tuning, and tactical application of techniques required for brushing, limbing, bucking, and falling trees. This class also strives to develop physical skills and stamina that is necessary for arduous work.

**Course Goals and Student Learning Outcomes:**

* Apply chain saw safety standard skills outlined by Occupational Safety & Health Administration (OSHA).
* Differentiate among basic chain saw parts nomenclature, maintenance, tuning, troubleshooting, and safety features.
* Select the approved use, maintenance, and function of personal protective equipment (PPE) required for safe chain saw operation.
* Select the appropriate field maintenance tasks required for proper chain saw operation.
* Apply the tactical chain saws skills related to brushing, limbing, bucking, and falling wood material.

**Objectives and Guidelines:**

The above field studies course is a one-day course designed to give students hands on experience in Wildland Fire Suppression Techniques (including usage of Hand Tools and Hydraulic Systems) and Ecosystem Restoration. Crew Dynamics is an important component of the activities. You should perform the work as though this is a job. The instructors observe your performance in order to grade and recommend you for summer employment.

**Course Objectives:**

*In the process of completing this course, students will:*

* List and define chain saw safety standards outlined by Occupational Safety & Health Administration (OSHA).
* Identify basic chain saw parts nomenclature, maintenance, tuning, troubleshooting, and safety features.
* Know the approved use, maintenance, and function of personal protective equipment (PPE) required for safe chain saw operation.
* Demonstrate field maintenance tasks required for chain saw operation.
* Demonstrate the tactical application of chain saws in brushing, limbing, bucking, and falling wood material.

**What to Wear**: (Student Required PPE for Field Practicum)

Each student must have the following items during each class in order to be allowed to participate and earn credit for field trip.

- Hardhat (provided)

- Ear Protection (provided)

- Leather Gloves (provided)

- Water container (1-quart canteens or water bottles)

- Leather Boots (minimum 8” high uppers, nonskid soles preferably Vibram, no steel) (provided)

- Nomex Pants (provided) (Student provides leather belt)

- Nomex Shirt (provided)

- Backpack (provided).

\*\*You will be outside all day and you will be hiking. Do not forget your lunch and drinking water!

**Field Trip: TBD**

ASSIGNMENTS

**Writing Assignments**: All writing assignments will require that you visit the Writing center in order to receive a full grade.

**Module Take-Aways:** After each class session you will be required to write down 5 main points that you took away from class.

**You Are Required To Take Notes, It Will Be A Part Of Your Grade:** Much of the concepts and information you will be required retain will be passed along through lectures. You must take good notes to ensure that you have the required material for study purposes. If you miss class you will need to find a class mate and obtain the notes for the day you missed. Lecture information will not always be formatted to be posted on canvas.

**Communication Is Required:** Unless previously arranged with the instructor, if you miss a deadline on an assignment without contacting me ahead of time you will not get an opportunity to make it up, which means you will get a zero. You need to be a responsible adult; this program will not enable irresponsibility.

**Missed Exam:**

In the event you are going to miss an exam OR assignment you must:

* Contact an instructor at least 1 day ahead of time to let me know your special situation.

**Team Work:** The only way we get through this is together. We need to help one another. Work as a team, pick each other up, help one another get through the academic and physical challenges, we need to have regular study groups, hold each other accountable and hold yourself accountable.

**Personal Growth and Effort:** You are here by choice and you are going to do it anyway, might as well do it right. Have some integrity to do the right thing when no is looking.

**Reading And Writing Is Required:** During this course you should expect to have to communicate through reading, writing and oral briefings.

Preparedness

**You Are Responsible For Your Learning:** If you don’t understand you need to ask. You are here by choice so, strive to do well. If you don’t ask, you cannot be helped.

**Participation Guidelines:** participation is considered active involvement in all classroom or lab activities. Participation requires you to engage in lecture topics. You will be graded on your participation.

**Class Room Preparedness:** You will be docked preparedness/participation points for not having your required materials. You must always bring to class your Lecture/Lab Manuals.

**You Must Always Be Prepared For Class:**

* If you do not have your proper PPE you will be excused from class and will lose credit for the day.
* If you do not have your lab manual or notetaking materials you will be considered unprepared, will be excused from class and will lose credit for the day.

**Personal Protective Equipment (PPE) is mandatory for all field exercises:**

Safety rules must be strictly followed including the use of personal protective equipment (PPE) and cautious behavior. Students who fail to have in possession all PPE for field trip/exercises will not be allowed to participate, will be dismissed from the day’s exercise, and will be charged an absence for the day.

**SEE STUDENT REQUIRED PPE listed items above under what to wear:**

**Classroom Visitors:** It is not permitted to bring guests to class.

**Late Work:** Work that is turned in late will lose 10% percentage grade points for each class session that is missed. (one class session late = -10% two class sessions late = -20%. Make up work will not be accepted after 3 missed sessions)

**Make-ups:** Make up work will be accepted at the discretion of the instructor. All make up work must be discussed and approved by the instructor. Do not assume that make up work will be made available to you.

**Extra Credit:** Extra Credit opportunities may be made available throughout the semester. Opportunities will be communicated as they arise.

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| **Mastery SKILLS** | * **Chainsaw Operations**
* **Cleaning and Maintenance**
* **Trouble Shooting**
* **Wedging**
 | * **Tool Maintenance**
* **Saw Kit readiness**
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| **MODULE** | **TOPIC** | **SCHEDULE** **& ASSIGNMENTS** | **LEARNING OBJETIVES** |
| **1** | **Introduction****Equipment Work, Tools, Culture and Safety Practices****Terminology** | * **LECTURE 1:** Introduction to Chainsaw equipment and work culture and terminology
* **PPT-**
* **VIEW and DISCUSS**: \*\****YouTube***-
 | * Introduce the Chainsaw
* Gain an understanding of the various pieces of equipment needed for chainsaw operations
* Explore the culture and requirements for the job.
* Define common chainsaw operations terminology.
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| **2** | **General Work Protocols and** **Basic Starting and Operating Procedures** | * **LECTURE 2a:** General Work Protocols and Job Hazard analysis
* **LECTURE 2b:** Medical Planning
* **PPT-**
* **VIEW and DISCUSS:** \*\****YouTube*** –
 | * Identify components of worksite safety.
* Identify common Safety concerns for chainsaw operations.
* Understanding how to assess complete Job Hazard Analysis
* Understanding the physical demands of the job.
* Introduction to basic operating procedures.
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| **3** | **Risk Management****Binds, Bucking and Limbing** | * **LECTURE 3a:** Risk Management
* **LECTURE 3b:** Bucking and Limbing procedures, identifying binds
* **PPT-**
* **VIEW and DISCUSS:** \*\****YouTube***
 | * Define what risk management is.
* Define situational awareness
* Demonstrate proper assessment of binds.
* Identify the concepts of limb cutting sequences.
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| **4** | **Project Planning** **Chain Management** | * **LECTURE 3a:** Project Planning
* **LECTURE 3b:** Chain Maintenance
 | * Identify Project work Flow
* Identify Communication Protocol Link and check in procedures
* Develop and apply Medical evacuation protocols
* Utilize 9 line reporting system to communicate an emergency.
* Understanding of the parts of a Chain.
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| **5** | **Tree Felling Concepts****FIELD Practice** | * **LECTURE 5:** Introduction to Tree felling
* **PPT**-
* **VIEW and DISCUSS**: ***YouTube*** –
 | * Describe the procedure to properly fall a tree.
* Identify common falling difficulties
* Understand wedging protocols.
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| **6** | **FIELD Practice****Case Study-Dutch Creek Protocol** | * **LECTURE 6a:** Basic Concepts of Wildland Fire Behavior.
* **LECTURE 6b:** Topography Influences
 | * Describe the procedure to properly fall a tree.
* Identify common falling difficulties
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| **7** | **FIELD Practice****MID TERM REVIEW** | * **LECTURE 7:** FIELD
* **PPT-**
 | * Field repetitions
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| **8** | **FIELD FINAL** |  |  |
| **9** |  **WRITTEN FINAL** |  |  |

**Grading Policy:** Grading will be based on the results of Operational Skills, Repair Skills,

Laboratory Participation and Final Exam. Assignments must be submitted on the due date or earlier. Assignments and exams will be based on lectures, in-class labs, and reading assignments.

**Please read all assignments.**

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**Accommodation Statement:**

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible. A formal counseling assessment to determine the appropriate accommodation is required before any accommodation(s) can be made. The counseling center facilitates the process.

**Cheating and Plagiarism:**

Cheating and plagiarism are serious offenses and will not be tolerated. Students shall comply with Board Policy 5410; each student is expected to exert an entirely honest effort toward attaining an education. Violations of this policy will result in failing grade on an assignment and/or entire course.

If class is canceled due to extreme weather or other issues students will be notified via Remind or email.

**IMPORTANT DATES SPRING 2022**

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| **DATE** | **DAY** | **EVENT / DEADLINE** |
| 3-Jan | (M) | Campus re-opens after Winter Break |
| 7-Jan | (F) | Last day to add a full-term Spring 2022 class in person or online through WebAdvisor 5:00 p.m. |
| 10-Jan | (M) | Start of Spring 2022 semester |
| Jan 10 - Mar 11 | (M-F) | Short-term classes, first nine weeks |
| 17-Jan | (M) | Martin Luther King, Jr. Day observed (no classes held, campus closed) |
| 21-Jan | (F) | Last day to drop a Spring 2022 full-term class for full refund |
| 28-Jan | (F) | Last day to register for a Spring 2022 full-term class in person w/ authorization code |
| 28-Jan | (F) | Last day to drop a Spring 2022 full-term class to avoid a “W” in person |
| 30-Jan | (Su) | Last day to drop a Spring 2022 full-term class to avoid a “W” on WebAdvisor |
| 30-Jan | (Su) | Last day to add a Spring 2022 full-term class with an authorization code on WebAdvisor |
| 18-Feb | (F) | Lincoln Day observance (no classes held, campus closed) |
| 21-Feb | (M) | Washington Day observance (no classes held, campus closed) |
| 11-Feb | (F) | Last day to change a Spring 2022 class to/from Pass/No-Pass grading basis |
| 1-Mar | (T) | Deadline to apply for graduation for Spring 2022 completion |
| 11-Mar | (F) | Last Day to drop a full-term class (letter grades assigned after this date) |
| Mar 14 - May 20 | (M-F) | Short-term classes, second nine weeks |
| Apr 11 – April 15 | (M-Th) | Spring recess (no classes held, campus open) |
| 15-Apr | (F) | Good Friday observance (no classes held, campus closed) (classes reconvene April 18) |
| May 16-20 | (M-F) | Spring 2022 final exams week |
| 20-May | (F) | End of Spring 2022 semester/commencement |
| 30-May | (M) | Memorial Day holiday (campus closed) |