## RTM 151C Winter Mountaineering (2 units)

Department of Recreation and Tourism Management California State University Northridge

### Fall 2011

Redwood Hall 153 – Sat. 1:00-2:50 Class Meetings on October 22 plus online sessions. Plus Field Location on December 2-3 (all day) and December 17-23 (optional climb Mt. Whitney)

**INSTRUCTOR:** Al Wright, Ph.D. Questions: alan.wright@csun.edu

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or

www.alwrightonline.com

# **COURSE DESCRIPTION:**

Advanced instruction in mountaineering and travel in the backcountry, with particular emphasis on snow and ice climbing (not vert.), avalanche prediction, physical effects of high altitudes and winter camping skills. Emphasis is on technique, proper use of equipment, environmental practices and safety. Arranged field trips are required.

### **COURSE OBJECTIVES:**

<u>Departmental Student Learning Outcome #1:</u>

"Students will demonstrate critical thinking including analysis, synthesis, and evaluation in the fields of play, leisure, recreation, parks, and/or tourism through a variety of pedagogies."

At the conclusion of the course students should be able to:

- 1. Have an increased understanding and appreciation for the natural environment, and demonstrate minimum impact techniques during winter backcountry travel
- 2. Be able to analyze weather conditions and preparedness of a group to make mature decisions regarding setting up camp, finding safer terrain or down-climbing
- 3. Have an increased understanding of navigational skills in a winter mountainous environment
- 4. Assess and evaluate snow conditions regarding potential for avalanche
- 5. Synthesize factors of physiology and external conditions to make proper decisions regarding cold-related illness
- 6. Comprehend the effects of high altitudes on human physiology and the medical emergencies of HAPE, HACE & AMS

- 7. Apply winter travel techniques of snowshoeing and cross country skiing for safe navigation in the backcountry
- 8. Properly analyze environmental conditions and apply appropriate snow and ice climbing techniques for ice axe, crampons, roped travel, & crevasse rescue
- 9. Demonstrate appropriate levels of self-confidence, self-awareness and sensitivity to the needs of others in the group
- 10. Demonstrate appropriate decision-making skills for group safety during travel

# **COURSE CONTENT:**

- I. Introduction
  - A. Planning and information gathering
  - B. Preparation: mental and physical
  - C. General requirements of resource management agencies
- II. Regulation of body temperatures
  - A. Heat transfer mechanisms
  - B. Heat production
  - C. Insulations principles and materials
  - D. The layering system
- III. Water and heat emergencies
  - A. Bodily requirements for hydration
  - B. Dehydration and heat exhaustion
  - C. Hyperthermia: symptoms, treatment
  - D. Water: sources and purification
- IV. Environmental considerations
  - A. Minimal impact philosophy
  - B. Ecosystems and environment sensitivity
  - C. Animals and human visitors
  - D. Minimum impact camping and
  - travel techniques
- V. Environmental hazards
  - A. Weather
  - B. Snakes and reptiles
  - C. Mammals
  - D. Ticks, scorpions, spiders
  - E. Fires

### VI. Backcountry travel techniques

- A. Navigation with map and compass
- B. Hiking techniques: conserving energy
- C. Crossing water hazards
- D. Safety

### VII. Food in the Backcountry

- A. Nutritional and caloric requirements
- B. Menu suggestions: freeze dried/ dehydrated
- C. Cooking techniques
- D. Preparation, packaging and storage

### VIII. Basic first aid

- A. Safety: judgement
- B. True emergencies: bleeding & breathing

### IX. Short term survival

- A. Priorities
- B. Shelters
- C. Water & Food

### X. Winter outdoor living skills

- a. Outdoor equipment
- b. Nutritional demands
- c. Environmental practices

### XI. Hazards of the winter environment

- d. Hypothermia
- e. Heat transfer mechanisms
- f. Environmental physiology
- g. Emergency responses

### XII. Avalanche

- h. Prediction
- i. Safe travel in avalanche terrain
- i. Rescue techniques

### XIII. Travel in the winter environment

- k. Snow-shoe techniques
- 1. Cross country ski techniques
- m. Crampon climbing techniques
- n. Orienteering review

# XIV. Hazards of the high altitude environment

- o. Environmental physiology review
- p. Acute mountain sickness (AMS)
- q. High Altitude Pulmonary Edema (HAPE)
- r. High Altitude Cerebral Edema (HACE)
- s. Emergency responses

#### XV. Winter Shelters

- t. Snow caves
- u. Igloos
- v. Emergency shelters

## XVI. Roped travel

- w. Belay techniques
- x. Ice axe/self-arrest
- y. Crevasse rescue

### **METHODS OF INSTRUCTION:**

- 1. <u>Methodology:</u> Lectures and experiential laboratory sessions will enable students to develop the skill competencies necessary for a safe outcome in travel in winter environments.
- 2. <u>Schedule of Instruction:</u> The class meets for 30 hours of instruction as a 2 unit class. The course is run in a non-traditional intensive format to maximize learning through experiential education methods. The class begins with face to face orientation and introductory lectures, followed by several on-line lectures (virtual class meetings), then there is a mandatory pre-field class meeting on campus, and finally the experiential class in a wilderness setting.

Fall 2011 brings back a special opportunity for students. In addition to the weekend field class there will be an opportunity for a winter climb on Mt. Whitney (the highest mountain in the lower 48 states). Students will need to choose in advance if they want to pursue this optional climb. Details will be provided at the course web site and in class.

### **METHODS OF ASSESSMENT:**

Departmental Student Learning Outcome #1:

"Students will demonstrate critical thinking including analysis, synthesis, and evaluation in the fields of play, leisure, recreation, parks, and/or tourism through a variety of pedagogies."

### A. Assessment Tools:

- a. Embedded questions on final written exam and skill tests.
- b. Ability competency testing per certification standards where applicable

# **B.** Evaluation Tools:

a. Examination: 50%

b. Active Participation: 50%

**Text:** Mountaineering: Freedom of the hills. (2003). 7<sup>th</sup> edition. Seattle: The Mountaineers.

<u>Class Field Trip:</u> The specific weekends for the class trip is found on the first page of this syllabus. Because the trips encompass over 75% of the time in this class, attendance on these trips is **mandatory**. Make sure you are available from Friday morning to Sunday afternoon of the weekend corresponding to your trip and all day Saturday for the first field trip. If you have a commitment during the weekend trips, you will have to drop the class. Unfortunately, there is no way around this. **BE AWARE OF WHICH SECTION YOU HAVE REGISTERED FOR, AND MAKE SURE THAT WEEKEND FITS YOUR SCHEDULE!** 

### OTHER FIELD CLASS INFORMATION AND MISC CLASS POLICIES:

### A. Grading Criteria

1. The CSUN criteria for grading will be strictly followed including that an "A" represents "Outstanding" work and "an innovative application of the subject matter." Refer to CSUN catalogue for additional details. Because class participation is such a significant part of the grade, attendance will be taken and

failure to attend all class sessions will compromise your grade. Failure to attend the weekend field class will result in a failing grade for the class.

- 2. An Incomplete ("I") is assigned only as specified by Instructor and upon consultation and approval of the Instructor. Incompletes are normally not permitted.
- 3. For Credit/No Credit grading, student must be doing passing work to receive "credit." Credit/No Credit grading option must be requested on SOLAR by the appropriate deadline.
- B. Students may not attend the field trip without review of the field trip information by the instructor prior to the field class. You must attend that class session. In addition to being adequately prepared for the environmental demands of the field setting, students are required to complete a release form and insurance verification form PRIOR to the field class session.

# C. Student Discipline

Inappropriate conduct by students (such as consuming alcohol on field trip and/or any other safety violation) is subject to discipline as provided in Sections 41301 through 41304 of Title 5, California Administrative Code. Refer to CSUN catalog for further details. The consequence for use of alcohol or illegal drugs in a field class is a failing grade for the class.

D. Field Trip Advanced Information about Equipment and Student Costs

More detailed information will be provided during the class to indicate what to bring, how to get there, and so forth for the required field class.

Travel: Students are encouraged to car pool for financial and environmental reasons. Student choices to car pool are the full responsibility of the students. PROOF OF CAR INSURANCE (if driving) is required by the university. Students should bring proof of insurance coverage to the pre-field class meeting in addition to their vehicle license plate number. Students can download the form provided on-line and bring that form to the pre-field class meeting.

Students must meet the instructor at the designated field site location identified in the pre-trip information. If students are late they will not attempt to locate the rest of the class in the wilderness nor are students allowed to depart from the field class experience early.

Detailed explanation of any personal gear necessary for the field experience will be reviewed in class and any university issued gear will be provided. Common personal gear for the field class could include:

Rain Gear/ Winter Boots/ Food / Water Bottles Clothes:

Loose-fitting & flexible wool or pile pants and shirts Warm clothes (pile or wool sweater/ wind gear).

Winter bag/ Skies (can rent) Sunscreen/ Sun glasses

- E. Expenses the student can expect:
- a. Gas cost will vary depending on vehicle and current prices. Round trip travel to the field sites may be 300 miles. Costs will be reduced if shared with car pool.
- b. Campsite fees = could be from \$0 to \$25.00 per student depending on the final field class location.
- c. Food = students provide their own food for field trips so cost varies according to your taste.

- d. Equipment rentals = Students will be required to rent cross country skies for the day field trip. The cost may be \$20. The longer weekend will be on snow shoes provided by CSUN. Winter sleeping bags may want to be rented though CSUN can provide all essential trip gear.
- e. Students may choose to provide their own backpack, sleeping bag, and other assorted camping gear though there is no obligation to provide these as CSUN can provide those for you.
- F. Students should retain copies of their graded work until a final grade is received for the course.
- G. Students are advised to consult with campus services to receive assistance if they have concerns regarding skills in areas such as writing or studying or computer skills.
- H. **Email:** Each student is expected to have access to their CSUN email account. If that is not your primary email you can set up a referral email and check it regularly.

<u>Contacting the professor:</u> Dr. Al Wright (feel free to call him Al) should be contacted with his CSUN email (awright@csun.edu or alan.wright@csun.edu). If you contact me with an individual question I will always *reply* to whatever address was the source of the email. Students are encouraged to ask questions of the professor in class time whenever possible to limit the email traffic where ever possible.

<u>Contacting students by professor:</u> Any class emails sent to students from me will use your official CSUN email that is in the system. If you have a primary email that is not your CSUN account then please have your CSUN GMAIL email forwarded to your personal Gmail or Hotmail or other preferred address. Go to GMAIL and follow the directions at the Forwarding Mail area.

- I. Cellular phones, pagers and other electronic devices not being used for instructional purposes should be kept off during non-field classes (field classes restrict the use of e-devices).
- J. The classroom climate is intended to be ideal for learning. In order to create a safe, welcoming and productive classroom environment, individuals are expected to show respect for each individual associated with the class, the facilities and equipment. Abusive, violent, disrespectful or disruptive behavior will not be tolerated. Students are referred to the policies and regulations section of the University Catalog for university policies and code of conduct information. Students who are disruptive will be removed from class.
- K. Students are encouraged to be proactive and seek out the instructor as soon as they have any concerns about the class or their performance. The end of the semester is too late to take action to bring up a grade. The instructor will deal directly with each individual student on questions regarding grades or progress in the class (not with parents, relatives, friends or other representatives of the student).

### L. STUDENTS WITH DISABILITIES

The instructor, in conjunction with CSU, Northridge is committed to upholding and maintaining all aspects of the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973. If you are a student with a disability and wish to request accommodations, please contact the office of Disability Resources and Educational Services located in the Bayramian Hall 110. General Email: <a href="mailto:dres@csun.edu">dres@csun.edu</a> Phone: (818) 677-2684 for an appointment. Any information regarding your disability will remain confidential. Because many accommodations require early planning, requests for accommodations should be made by the second week of class. Any requests for accommodations will be reviewed in a timely manner to determine their appropriateness to this setting.

# M. Note: the most recent (and accurate) version of this syllabus exists on the course website

**N.** Having now listed many 'policies and procedures' necessitated by our increasingly complex and frequently absurd cultural framework – remember that learning should be fun (at least most of the time) – so speak up if you are not having fun yet!;)

**The Syllabus:** This syllabus includes a great deal of essential class information. Please read it first rather than sending an email asking questions that are easily answered in this document. Also check for other key documents posted at the class website.