ED F595P F01: The Wild Side of Education:

Teacher Workshop in Yukon-Charley Rivers National Preserve

This course will be based at historic Coal Creek Camp, a restored mining camp in the heart of the Yukon-Charley Rivers National Preserve. Located only a few miles from the Yukon River, teachers will be immersed in the history of the gold rush, boreal forest ecology, archaeology, and scientific research in the preserve. Along with National Park Service education and resources staff, participants will explore the natural and cultural history of the area and investigate the sub-artic ecosystem and historic sites within the preserve. Work will be required before and after the field portion of the course, and participants must submit a final project.

3 Credits, Graded P-NP

Summer 2015

Instructors:
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Additional National Park Service staff TBA

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Course Meeting Information

Initial Orientation Meetings: (6 hours)
Tuesday, July 14 and Thursday, July 16, 6:00 – 9:00 PM
Participants will meet at the Morris Thompson Cultural and Visitors Center for an introduction to the natural and cultural history of Yukon-Charley Rivers National Preserve. They will meet National Park Service staff and learn about ongoing projects and research being carried out in the preserve. These sessions will include a discussion about logistics and special considerations for the field-based portion of the class. (Webinar/video-teleconference for the orientation meetings may be available for participants outside of the Fairbanks-North Star Borough.)

Workshop: (28 hours)
4 Days (July 21-24) at Coal Creek Camp in Yukon-Charley Rivers National Preserve. Course fee includes travel from Fairbanks to/from Coal Creek Camp via small aircraft.
Independent Work: (3 hours)
Participants will finalize the place-based, standards-aligned lesson plans that they began during their time in Yukon-Charley Rivers National Preserve. These lesson plans will incorporate the knowledge and experiences they gained during the field portion of the workshop, align with state and local curriculum, address relevant student performance standards, and reflect current best practices in curriculum design and instructional strategies.

Post Workshop Meeting: (3 hours)
Tuesday, July 28, 6:00 – 9:00 p.m. at the Morris Thompson Cultural and Visitor Center (may be available by webinar/video-teleconference for participants outside of the Fairbanks-North Star Borough)
Participants will share their lesson plans and supporting materials with other participants.

Intended Audience: K-12 educators

Enrollment Restrictions: 15 participant maximum

Course Prerequisite/Co-requisites: None

Link to Standards for Alaska Teachers:
This professional development effort is rooted in the fundamentals of the standards for Alaska Teachers. It is offered to encourage and support practicing educators in attaining, maintaining or surpassing the standards that, as stated in Standards for Alaska’s Teachers, “define the skills and abilities our teachers and administrators need to possess to effectively prepare today’s students for successful lives and productive careers” (http://www.eed.state.ak.us/standards/pdf/teacher.pdf).

Course content aligns with and enhances the following performance standards for Alaska’s teachers (Standards for Alaska’s Teachers, http://www.eed.state.ak.us/standards/pdf/teacher.pdf):

3a: The teacher “incorporate[es] characteristics of the student’s and local community’s culture into instructional strategies that support student learning.”
3c: The teacher “appl[ies] knowledge of Alaska history, geography, economics, governance, languages, traditional life cycles and current issues to the selection of instructional strategies, materials, and resources.”
4d: The teacher “connect[s] the content area to other content areas and to practical situations encountered outside the school.”

4e: The teacher “stay[s] current in the teacher’s content area and demonstrat[es] its relationship with and application to classroom activities, life, work, and community.”

5b: The teacher “creat[es], select[es], adapt[es], and us[es] a variety of instructional resources to facilitate curricular goals and student attainment of performance standards.”

8b: The teacher “maintain[s] and updat[es] both knowledge of the teacher’s content area or areas and best teaching practice.”

8c: The teacher “engag[es] in instructional development activities to improve or update classroom, school, or district programs.”

8d: The teacher “communicat[es], work[es] cooperatively, and develop[es] professional relationships with colleagues.”

**Course Design:**

1. Requires attendance at 6 hour orientation meeting (2 sessions of 3 hours each)
2. Will require a commitment of 28 hours of active engagement while in attendance at Coal Creek Camp
3. Requires 6 hours, post-workshop (3 hours independent work and 3 hours in classroom)
4. Does not apply to any UAF certificate or degree program.
5. This course is based upon the collegial sharing, collaboration and support of the participants and facilitator as a community of learners. Course activities will include lecture, experiential field activities, group discussions, peer work sessions, and reflective practices.

**Instructional Goals and Defined Outcomes**

Participants will be introduced to the most recent and relevant science happening in Interior Alaska’s National Parks. They will practice observing, questioning, and applying new understandings and skills through the collection, analysis, and communication of data. Through professional learning community-style discussion, work sessions, and peer coaching, participants will examine applications of content to their classrooms, culminating in a place-based lesson plan that incorporates educational best practices and aligns with curriculum goals and standards.

Participants will meet with National Park Service (NPS) resource specialists to investigate the landscape through scientific and historical inquiry. Collaborative professional learning communities focused on curriculum and instruction will complement field and lecture sessions with NPS scientists and historians. Participants will document their experiences and create supporting educational materials through photography, video, and audio recorded on tablets and/or smartphones. Outside of formal instructional sessions, participants will have the opportunity to interact one-on-one with NPS staff to learn more about ongoing science projects, Preserve and area history, and career paths in natural resources.
1. **Instructional Goals:**
   The instructor(s) will:
   1.1. Inform participants about the ecological processes being studied by National Park Service researchers.
   1.2. Inform participants about the natural and cultural history of the Yukon-Charley Rivers National Preserve.
   1.3. Offer course participants strategies to engage K-12 students in current historical and ecological research and environmental stewardship activities.
   1.4. Provide a framework for teachers to practice inquiry-based teaching, conduct field studies using ecology field technique and incorporate research into classroom teaching.
   1.5. Engage participants in discussions, reflective writing and informal sharing about science instruction and how to incorporate field science into their classrooms.

2. **Defined Outcomes:**
After successful course completion, students will be able to:
   2.1. Explain basic concepts of boreal forest ecology.
   2.2. Identify key historical events that occurred in relation to the Gold Rush and the subsequent development of Interior Alaska, especially the area comprising Yukon-Charley Rivers National Preserve.
   2.3. Compare and contrast scientific and traditional ecological knowledge as ways of knowing, and discuss the benefits and drawbacks of both.
   2.4. Develop and teach at least one place-based, standards-aligned lesson plan about boreal forest ecology, gold rush history, or other content areas included in course instruction for K-12 students.
   2.5. Recognize opportunities to incorporate selected inquiry-based science and history learning activities into their curriculum and effectively implement selected activities.
   2.6. Comfortably use a “backwards-design” approach to lesson plan design, and explain this type of approach and how it differs from “traditional” approaches to curriculum design.
   2.7. Summarize the mission of the National Park Service and identify opportunities to use NPS resources, themes, programs, and services in the classroom.

**Instructional Methods**
Instructional strategies will incorporate mixture of lecture, small group discussion, journaling, hands-on scientific inquiry and investigation.

**Writing Style Requirements**
Participants writing will reflect the clarity, conciseness and creativity expected of post-baccalaureate certified educators.
Attendance and Make-up Policy
Participants are expected to actively and collegially participate in all workshop sessions as a contributing member of a learning community. Attendance is required for the full course, including two pre-trip orientation sessions and one post-trip project sharing session. (Webinar/video-teleconference for pre- and post-trip sessions may be available for participants outside of the Fairbanks-North Star Borough.)

Course Assignments, Assessment of Learning, and Grading System
Course grading will be pass/no pass based upon the following. A final grade of 70% or higher is required for passing. Models or rubrics will be provided for each assignment.

a. Participation and collegial support 50%
   Participants will be expected to actively and collegially participate in discussion, activities and other process experiences during all seminars and activities, including both indoor and outdoor settings and evening sessions.

b. Lesson plan and supporting materials 40%
   Participants are expected to produce a lesson plan based on their experience in Yukon-Charley and to share the lesson plan, any supporting materials, and reflections on the curriculum development process with their colleagues during an evening session on July 28, 2015 in Fairbanks. The place-based lesson plan should reflect a backwards-design approach; address Common Core Standards, Next Generation Science Standards, and other local, state, and national performance standards; and incorporate NPS resources and themes. Ideally, participants will share their lesson plans and supporting materials with other educators in and external to the course.

c. Evaluation 10%
   Participants will complete pre- and post-course knowledge and attitudes surveys and participate in course evaluations.

Tentative Course Calendar/Schedule

Tuesday, July 14 and Thursday, July 16 6:00-9:00PM
- (2) 3 hour orientation meetings at the Morris Thompson Cultural and Visitors Center
  - NPS staff will review course schedule, logistics, goals, and requirements.
  - Participants will complete a pre-course survey to assess learning and evaluate course effectiveness.
  - NPS staff will provide basic safety and stewardship orientation, including bear awareness, leave no trace practices, and self-care in inclement conditions.
  - NPS staff will provide an overview of NPS mission and history and purpose and significance of Yukon-Charley Rivers National Preserve.
O NPS staff will provide an introduction to natural and cultural history of Interior Alaska.

**Tuesday, July 21***
- Arrive at Coal Creek Camp via small aircraft (time TBA)
- Orientation to Coal Creek Camp facilities and protocols
- Dinner
- Professional Learning Communities (evening)

**Wednesday, July 22***
- Educational Tour of Coal Creek Camp
- Resource specialist presentations and field sessions. Topics may include cultural and gold rush history of Yukon-Charley Rivers National Preserve, science of gold panning, archaeology, boreal forest ecology, ornithology, aquatic ecology, geology, wildlife biology.
- Educational Tour of Coal Creek gold dredge
- Independent exploration, journaling, and photo/video/audio documentation
- Professional Learning Communities (evening)

**Thursday, July 23***
- Resource specialist presentations and field sessions. Topics may include cultural and gold rush history of Yukon-Charley Rivers National Preserve, science of gold panning, archaeology, boreal forest ecology, ornithology, aquatic ecology, geology, wildlife biology.
- Slaven’s Roadhouse visit/tour and independent exploration, journaling, and photo/video/audio documentation near Yukon River
- Yukon River boat trip
- Professional Learning Communities (evening)

**Friday, July 24***
- Independent exploration, journaling, and photo/video/audio documentation
- Return to Fairbanks via small aircraft

*All on-site activities in Yukon-Charley subject to change according to weather and staff availability.

**Tuesday, July 28, 6:00 – 9:00 PM**
- 3 hour post-workshop session in Fairbanks
  - Participants will share and submit their lesson plans and supporting materials.
Supplemental materials
No textbooks are required. Suggested Reading (optional):

Electronic resources

Yukon-Charley Rivers National Preserve Website (www.nps.gov/yuch):

Learn About the Park
Significant Values of Yukon-Charley Rivers

Nature
   Animals
   Plants
   Environmental Factors
     Fire Regime
   Natural Features and Ecosystems
     Geologic Formations
     Permafrost

History & Culture
   People
   Places
   Stories

Central Alaska Inventory & Monitoring Network web site
(science.nature.nps.gov/im/units/cakn/index.cfm)

Print resources


**Course Policies:**

**Audit Policy**
Auditors must complete written work.

**ADA Policy**
The University of Alaska Fairbanks is committed to providing equal access for students with disabilities. The Office of Disability Services implements the Americans with Disabilities Act (ADA) and insures that UAF students have equal access to the campus and course materials. We will work with the Office of Disabilities Services (203 WHIT, 474-7043) to provide reasonable accommodation to students with disabilities. If you have a physical or leaning disability, please advise us in writing of any special consideration necessary by the beginning of the class. We will do everything possible to accommodate you in accordance with the Americans with Disabilities Act.

**Academic Dishonesty Policy**
Academic integrity is a basic principle that requires all students to take credit only for the ideas and efforts that are their own. Cheating, plagiarism and other forms of academic dishonesty are defined as the submission of materials in assignments, exams or other academic work that is based on sources prohibited by the faculty member. Academic dishonesty is defined further in the “Student Code of Conduct.” In addition to any adverse academic action that may result from the academically dishonest behavior, the University specifically reserves the right to address and sanction the conduct involved through student judicial review procedures and the Academic Dispute Resolution Procedure specified in the University catalog.

**Professional and Ethical Behavior**

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University of Alaska Fairbanks College of Education students are expected to abide by the State of Alaska Code of Ethics of the Education Profession and professional teaching standards as they concern students, the public and the profession. The standards, adopted by the Professional Teaching Practices Commission, govern all members of the teaching profession. A violation of the code of ethics and professional teaching standards are grounds for revocation or suspension of teaching certification.

**Technology Integration**

University of Alaska Fairbanks College of Education students are expected to (a) demonstrate sound understanding of technology operation and concepts; (b) plan and design effective learning environments and experiences supported by technology; (c) implement curriculum plans that include technology applications in methods and strategies to maximize student learning; (d) facilitate a variety of effective assessment and evaluation strategies; (e) use technology to enhance productivity and professional practice; and (f) understand the social, ethical and human issues surrounding use of technology in PreK-12 schools and apply those principles in practice.

**Support Services**

Student Support Services are available at UAF. The office is located at 512 Gruening Building and the phone number is 474-6844. You may also obtain additional information about support services at: http://www.uaf.edu/sssp/.