Since 1999

"The More You Carry In Your Head,
The Less You Carry On your Back"

Earth Skills and Bushcraft Education
College Credit Manual

10-Week Earth Skills and Bushcraft Fall Semester Program
10-Week Earth Skills and Bushcraft Spring Semester Program
3-Week Earth Skills and Bushcraft Winter Program
4-Week Earth Skills and Bushcraft Summer Program
2-4 Week Summer Canoe Expedition

This document is available online at: http://www.jackmtn.com/PDF/essp_credit.pdf

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Section 1 – About Our Programs and Educational Philosophy

For 99% of human history our species lived in close connection with the land and it's creatures. We're living in the 1% of our history where we've cut ourselves off from the land around us. Our programs focus on reconnecting people to the natural world. Students receive intensive, hands-on instruction in bushcraft and nature lore. They learn how to live well in the bush using a few simple tools, the skills of a professional guide, and the traditions of a way of life that's disappearing.

We draw from numerous disciplines to provide students with a thorough education. They include:

1. **Wilderness Survival** - Basic, intermediate and advanced survival.
2. **Bushcraft** - Making what you need with natural materials from the forest; Shelter design and construction, primitive firelighting, knife and axe use, saw construction, netting, making cordage, knots, etc.
3. **Traditional Canoeing** - Paddling, poling, lining, portaging, and using traditional gear such as tumplines and wannigans.
4. **Nature Lore** - Tracking, edible/medicinal wild plants, weather forecasting, bird and mammal studies.
5. **Navigation** - Barehand (using no modern tools), map and compass, GPS.
6. **Traditional Crafts** - Making useful items such as bows, arrows, pack frames, canoe paddles, toboggans, snowshoes, etc.
7. **Outdoor Cooking** - Stone ovens, pot suspension systems, primitive grilling, sourdough baking, reflector ovens, dutch ovens, etc.
8. **Outdoor Leadership** - Trip preparation and planning, provisioning, safety, leadership behavior, etc.
9. **Guide Training** - Becoming a professional outdoor leader, managing groups in the woods and on the water.
10. **Environmental Education** - Key principles of how life works on Earth.
11. **Hunting, Fishing and Trapping** - There are daily opportunities to harvest fish and game in season with the proper licenses, but no fish and game laws are broken during the course. In past semesters we've trapped for beaver and muskrat, hunted deer, and fished for a variety of species using fly tackle, spin tackle and traditional methods.

Our students come from all age groups and walks of life. Slightly more than half have been college students, representing such institutions as Brown University, Oxford University, Green Mountain College, Evergreen State College, New York University, Colorado Mountain College, the University of Colorado, Duke University, Plymouth State University, the University of Saskatchewan, Harvey-Mudd College and Antioch New England Graduate School. The remaining students have come to us from diverse backgrounds and occupations.

While we do not directly award credit, this manual will assist the student in obtaining desired credits from his or her university. Students should be advised that seeking course credit for participation through a separate institution may cause the student to incur additional fees from his or her institution and may involve additional assessment measures. Our instructors will assist and guide additional learning objectives, but it is the student who must ultimately decide if seeking course credit, while simultaneously experiencing our program, is financially worthwhile and academically desirable.

About the Director

The director and head instructor is Tim Smith, owner of Jack Mountain Bushcraft & Guide Service. Tim has a BA in anthropology from Union College, an M.Ed. from the University of North Texas, and is a registered master Maine Guide, registered New Hampshire hunting and fishing guide, and wilderness first responder. Our programs also incorporates the talents of numerous part-time instructors, who add a wealth of knowledge on various specialized topics.

Our Educational Philosophy

Knowledge is power, but knowledge is constructed, not received. It is built incrementally, over time. If teaching were simply telling, then anyone who excelled in a field would be an effective teacher of it. But this transmission model of teaching isn't effective for most learners. Standing in front of someone and telling them what they need to know isn't facilitating learning. Especially when you consider the differences between visual, auditory, and kinesthetic learning styles. We subscribe to the learning model of teaching, where the role of the teacher is to create situations where learning takes place. Students build upon their knowledge daily, and by the end of the experience they've accumulated a storehouse of information and experiences. But the instructor must also make it relevant. It's easy to scoff at friction fire since matches and lighters are so readily available. But remove them from the equation and it's instantly relevant, and the desire to learn the subtleties of the hand drill takes on renewed importance. Our students are actively learning, immersing themselves in the curriculum by necessity. An example of this is how we teach shelter building. You can learn something about a shelter by making one. You can learn more about it by sleeping in it. But to truly know that specific shelter, you need to spend four consecutive nights in it. In this way you're forced to deal with the consequences of shoddy construction or not paying attention to details. Maybe the first night is rough, but it teaches you what you need to do before the second night in order to shore it up and get some sleep. The second night is spent learning some of the subtleties that would make it more comfortable. The third night is fine-tuning it to your specifications, and the fourth night is enjoying the fruits of your labor. If you were to build the same shelter again, you could eliminate the learning curve because you'd know what to do from the outset. That's experiential education.

> *"Experiential education is the process of actively engaging students in an authentic experience that will have benefits and consequences. Students make discoveries and experiment with knowledge themselves instead of hearing or reading about the experiences of others. Students also reflect on their experiences, thus developing new skills, new attitudes, and new theories or ways of thinking."* (Kraft & Sakofs, 1988)

In addition to passing on traditional skills, we focus on using them to foster critical thinking, problem solving, creativity, curiosity, and a concern with ethical issues.

Summed up in a single word, our educational philosophy is this: Can

Section 2 – Program Objectives and Intended learning Outcomes

Our Educational Objectives

Bush lore is the combination of nature knowledge and bushcraft. Passing it on is the basis of our programs.

Nature knowledge is an understanding of the natural world, including plants, fungi, lichens, animals, birds, fish, mollusks, insects, amphibians, reptiles, rocks, minerals, soil, water, ice, weather, celestial bodies and ecology, the dynamic interaction of each with the whole. It can be learned but, in most cases, not directly taught. Experienced teachers can aid the learning process by creating study routines and providing resources. Observation and study are the keys and it's a lifetime endeavor.

Bushcraft is the active component of our interaction with nature. Both art and science, bushcraft is doing, making, crafting, traveling, building and living in the natural world using simple, low-tech tools. Static knowledge, such as how to care for tools, etc., is a small percentage of the discipline. The vast majority is active, dynamic and hands-on.

Intended Learning Outcomes

Upon successful completion of our programs, a student will:

1. Demonstrate knowledge, comprehension and application of a wide variety of bushcraft and primitive skills, including fire, shelter, outdoor cooking, tracking, observational weather forecasting, bowmaking, carving, basketry, cordage and natural bindings, navigation, and the use of the axe, saw, and knife.
2. Demonstrate knowledge, comprehension and application of traditional canoe skills, including paddling, poling, safely running whitewater, portaging, and other related skills. Also accurately self-evaluate their skill level and difficulty of rapids in order to make prudent decisions regarding whether to run or not.
3. Demonstrate knowledge, comprehension and application of traditional winter bush skills, including canvas tent use and care, wood stove setup, use and safety, snowshoeing techniques, the use of toboggan and sled to transport gear, and use of appropriate tools.
4. Build a variety of pieces of traditional gear using simple hand tools.
5. Define basic, intermediate, and advanced wilderness survival and the appropriate skill-set for each.
6. Assemble and maintain a tool kit with which they can make a variety of different crafts.
7. Navigate by map and compass, and also by using barehand methods.
8. Build a strong foundation of nature knowledge about the weather, birds, mammals and their tracks, fish, insects, the stars and constellations, and plants.
9. Have a working knowledge of 100 edible, medicinal, and otherwise useful wild plants.
10. Evaluate current and historical literature on bushcraft and outdoor leadership.
11. Evaluate whether modern high-tech camping practices have a minimum or displaced impact on the environment.
12. Compare the impact of a small-scale thermophyllic composting system that includes human waste with modern, input-intensive systems on the local environment.
13. Evaluate the role of traditional Earth skills and bushcraft in modern outdoor and adventure education.
14. Understand principles of effective outdoor leadership and group dynamics.
15. Effectively plan, provision, and prepare for a weeklong or multi-week wilderness trip.
16. Increase self-confidence through skill acquisition and an understanding of their impact on local ecology.
17. Document daily progress with individual skills in their logbook.

Section 3 – Assessment and Evaluation

We embrace portfolio-based assessment as it demonstrates what a student has accomplished instead of placing them in competition with their peers. Students keep a daily logbook and nature journal during the program to record what they've done. These, along with crafts they've made, projects they've worked on, photographs they've taken, and everything else they've done during the program are assembled into individual student portfolios.

The portfolio is a factual record what a student has accomplished. Instead of a contrived certification , it offers a real basis by which to evaluate progress and achievement. In this era of people being over-certified and under-qualified, this type of assessment system offers a route back to reality.

Section 4 – Procedure for Seeking Course Credit

The most common means by which students acquire course credit for our programs is through the completion of an independent study with his or her college or university. An independent study is a course that is designed by the student and a supervising faculty member.

Universities will often require the student to arrange for an independent study in the department in which credit is sought. The student should carefully evaluate any decisions involving course credit and may wish to consult an advisor or other individual who can help evaluate the best actions for fulfilling individual academic goals.

Keep in mind that our programs are highly academic and intensive immersion experiences. Students regularly conduct research or complete readings late into the evening. An independent study project will add additional responsibilities to the student and should be considered only if the student is dedicated to the completion of the additional assessment measures.

All independent study arrangements must be made with the college or university prior to arriving to ensure that credit will be issued upon successful completion of the program.

Section 5 – Educational Course Content in Our Programs

The areas of most intensive study have been developed into a 16-hour semester curriculum for our spring and fall courses. Each semester contains instruction in the various other skills mentioned in the course outline, but these 16 hours provide the foundation for the program.

Kinesiology/Outdoor Education – 2 Hours (Fall and Spring Semesters)
Traditional Canoe Travel
Students will become intimately familiar with the canoe by carving a paddle and pole and learning the short-stroke paddling style of north woods guides. Students will also learn the art of poling and snubbing for efficient down and upstream travel.

Kinesiology/Outdoor Education – 2 Hours (Winter Semester only)
Winter Wilderness Travel
Students will begin by constructing leather and canvas mukluks then hit the trail for a multi-week snowshoe trip. Pulling their gear on handmade toboggans, students will set up traditional camps of wall tents outfitted with wood stoves. Through this, students will experience the comfort of winter and how to safely and efficiently travel in the cold.

Kinesiology/Outdoor Education – 3 Hours
Outdoor Leadership
Students will learn to plan and lead extended wilderness canoeing, snowshoeing, and hiking trips. Navigation, lost person, search and rescue, trip planning and provisioning, group dynamics, and use of appropriate gear and tools are included in the course content. Taught by actively working guides.

Environmental Studies
Environment Ethics – 2 Hours
Students will fully develop their understanding of the relationships between humans and their physical and biological surroundings. Students will consider ethical environmental issues and learn to compost all of their organic refuse using a simple and efficient thermophyllic composting system.

Field Botany – 3 hours
Trees, Plants, and Wildflowers of the Northeastern Forest
A field and laboratory component emphasizes the diversity of local plant life and their environments. The scope of this component includes basic structure, plant and animal relationships, identification, adaptation, and uses. Living plants collected throughout the course in all of the natural areas will be pressed, identified and discussed. Student will also complete an in-depth investigation of one plant each day.

Biology – 3 Hours
Mammal Behavior and Tracking
Students will engage in daily studies of the fauna of the northern forest. Students will complete extensive background studies on mammals with an emphasis on their tracks, life histories, and behavior. Students will make plaster track casts as opportunities present themselves.

Anthropology – 3 Hours
Traditional Subsistence Skills
Students will learn traditional forest skills used throughout pre-industrial human history. Building shelters, making fire without modern contrivances, making string and rope, making baskets and pottery for containers, making and using stone tools, tanning skins and furs without chemicals, gathering wild plant and animal foods and learning the tools and techniques of fishing, hunting, and trapping are the main components. Other components are added when practical.

Section 6 – Arranging an Independent Study with Sample Topics

Begin by thoroughly reading the information contained in this manual and on our website (www.jackmtn.com). This information will provide you with an understanding of the goals, objectives, and teaching methods employed throughout the semester. While you read through the material, think about those areas that you feel will contribute the most value to your formal education. You may want to also think about which areas might possibly be used to fulfill requirements of your degree plan. This will guide you in determining the area and subject matter of your independent study course(s) and will aid you as you complete the following steps for arranging an independent study with your school. While our instructors are available to help clarify objectives and subject matter that will be taught in the program, each of the necessary steps in acquiring credit are the responsibility of the individual student.

1. Choose a supervising faculty member for your independent study. If you are unsure where to begin, your initial contact may be with an academic advisor, a professor, or a career counselor at your college or university. If you wish to receive multiple credits (such as an

environmental science credit and a botany credit), you may need to find a separate supervising faculty for each of the independent study courses you wish to complete. The professors may be affiliated with different departments at the college or university, so this will require additional coordination.

2. One you have chosen a supervising faculty, you will need to familiarize him or her with our program goals, objectives, and teaching methods as well as your personal interest in the program. We suggest that you share this manual with your supervising faculty so that he or she understands the educational benefit and academic scope of the program.

3. Establish an Independent Study Agreement with your college or university. A sample agreement is included in this manual. The student should fully understand this agreement before beginning their course with us. This agreement acts as a well-defined plan as to what objectives will be learned and/or mastered and what specific assessment measures beyond those already incorporated in the course will be required of the student. A supervising faculty may require a written report, an oral presentation, the completion of a reading list, a collection of photographs, the demonstration of an acquired skill, or any other assessment measure so that credit can be awarded upon completion the program.

4. Send a copy of your Independent Study Agreement to us prior to arriving for the course. If this is not possible due to time constraints, bring a copy of the agreement when you arrive. While the focus of the instructor will be the course outline, we will be aware and conscientious of all independent study goals and objectives throughout the course.

5. Upon completion of the course, submit your completed project to your supervising faculty for approval and credit. Send another copy of your project (if possible) to us.

Below is a sample of independent study topics that fit within our curriculum. Project possibilities are not limited to this list.

Anthropology
- Native Cultures and Technology
- Primitive Technology
- Stone Tool Construction and Use
- Making and Using Traditional Wooden Hunting Bows
- Shelters of the Northeast

Art
- Nature photography, sketching, or watercolors
- Traditional Crafts
- Traditional Leather Tanning (braintan or barktan)
- Coiled, Twined and Plaited Basketry
- Traditional Ceramic Replication

Astronomy
- Stars and the Night Sky
- Celestial Navigation

Biology
- Field Botany and Uses of Plants of the Northern Forest
- Birds of the Northeast forest
- Mammals of the Northeast Forests

Ecology
- Ecology of the Northeastern Forests

English
- Nature Journaling
- Survey of Adventure Literature
- Survey of Wilderness Survival Literature

Environmental Education
- The Flow of Energy
- The Cycling of Matter
- The Interrelating of Life
- The Changing of Forms

Experiential Education
- Concepts of Experiential Education
- Bloom's Taxonomy in the Outdoor Classroom
- Designing Engaging Experiential Programs

First Aid/Safety
- Wilderness First Aid
- Search and Rescue
- Traditional Bush Medicine
- Finding Lost People; Man-Tracking

Geography
- Creating Maps
- Study of local topography

History
- History of Environmental Use in the USA
- History of the Canoe in North America

Meteorology
- Weather Observation and Prediction

Nutrition
- Herbal Studies
- Outdoor Cooking and Baking
- Provisioning for Maximum Nutrition and Minimum Cost
- Food Preservation
- Traditional Travel Foods

Outdoor Leadership
- Guide Training
- Outdoor Leadership Practices
- Trip Planning
- Modern and Barehand Navigation

Physical Education/Kinesiology
- Traditional Canoe Travel
- Traditional Snowshoe Travel and Winter Wilderness Living
- Hiking and Backpacking Skills

Psychology/Sociology
- Group Living and Conflict Resolution
- Expedition Behavior
- Maslow's Hierarchy of Needs in the Context of Wilderness Survival

Sustainable Living
- Thermophyllic Composting; Turning Waste into Soil

Wilderness Survival
- Physiological Concepts Relevant to Wilderness Survival
- Psychological Concepts Relevant to Wilderness Survival
- Survival Kits; Separating Fact from Fiction

Zoology
- Mammals of the Northeast Forest
- Mammal Tracking

Section 7 – Independent Study Agreement

Sample Independent Study Agreement

Student Information

Name _____ College/University _____

Permanent Address _____

Supervising faculty Information

Name _____ Title/Department_____

Phone _____ Email_____

Project Information

Credits to be earned (number and type)_____

Title of Independent Study_____

Program Name and Dates Student is Attending _____

Project Due Date _____

Attach an Independent study plan as agreed upon by the student and supervising faculty. This description must include the following elements:

- Goal
- Additional student requirements to be completed before, during, and/or after the course, if required
- Assessment Measures/Grading policy and determination
- Supplemental reading list, if required

Student Signature_____ Date_____

Supervising Faculty Signature_____ Date_____

Make 3 copies of this form & attached study plan: a student copy, supervising faculty copy, and a copy for Jack Mountain Bushcraft & Guide Service.