

-Outdoor Ed /Fly Fishing

Objectives :

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School District 73 Kamloops

Status: approved

School Name: Westsyde Secondary

Course Name: Outdoor Education/ Fly-Fishing 11-12 Advanced
Course Code:

Category: Technology/Recreation
Grade Level of Course: 11-12

Number of Course Credits: 4

Number of Hours of instruction: 110

Date Approved:

Pre-requisites: Outdoor-Education Level 1 (YOE10)

Rationale

This course has been developed as a follow up to Outdoor ed level

1 The objectives of Outdoor Education 11-12 are:

- to teach and familiarize the student in wildlife identification, management and conservation. This includes identification and habitat of wildlife species.
- to take advantage of the outdoor recreation potential which is available to the public in the Kamloops area.
- to emphasize the students responsibilities to landowners, the public at large, wildlife and the environment
- to teach the student, to build equipment for outdoor use as well as proper care, safety and handling of all outdoor equipment. Fly fishing rod, wooden net, boat building, advanced fly-tying
- to teach practical skills that will make the student's use of the outdoors more pleasurable and safe.

Outdoor Education

Unit Title:	Time
1. Ethics and Conservation Initiatives	5
2. Constructing a wooden fly net	15
3. Lake and stream biology, management	5
4. Manufacturing Graphite fly rod	15
5. Entomology	5
6. Fly Tying Advanced	40
7. Tying knots and casting basics	5
8. Fishing methods, safe boat use	5
9. Lake environment and ecosystems	5
10.Planning for an outdoor Adventure	5
11. Guest speakers	5
TOTAL:	110 hours

Course Synopsis:

This course has been designed for students who have already taken outdoor ed as well as to encourage students to explore and make better use of the outdoors, in a safe and respectful manner. Students will be taught ethical decision making skills, fish/animal/bird identification skills, conservation initiatives and laws, wildlife management, fly tying , practical equipment building skills, first-aid and wilderness survival skills. All of these skills put together will help students to become more familiar and take advantage of the huge outdoor recreation potential available to the public in the Kamloops area.

Unit 1- Outdoor Ethics and Conservation initiatives

It is expected that the student will learn:

- to emphasize the students responsibilities to landowners, the public at large, wildlife and the environment
- to teach and familiarize the student in wildlife management and conservation. This includes identification and habitat of wildlife species.
- to familiarize themselves with provincial and regional fishing regulations, catch quotas and responsibilities through the study of the Provincial Angling Synopsis
- to research various agencies or societies that act in direct protection or reclamation of our environment and resources. This can be a study of Conservation officers, Park Wardens, Ducks Unlimited, Freshwater Fisheries Society, Grassland Community etc.
- to recognize and become active participants in the above initiatives

Unit 2- Constructing a Wooden Fly net

It is expected that the student will learn:

- practical skills that will make the student's use of the outdoors more pleasurable and safe
- to build equipment for outdoor use as well as proper care, safety and handling of all outdoor equipment
- safety in the wood shop through tests and practical applications
- the design and construction process in making a project applicable to this course and outdoor recreation
- various wood identification as well as uses
- advanced woodworking skills, steaming, laminating and bending and using waterproof glues.

Unit 3- Lake and Stream Biology and Management

It is expected that the student will learn:

- wildlife management and conservation. This includes identification and habitat of wildlife species.
- biodiversity of trout and char species and their geographic distribution
- about stocking programs, hatcheries and wild populations of trout and char
- importance of trout to the environmental tourism industry of the region
- the importance of trout and char to public recreation as well as health and wellness
- the purpose of both government and public initiatives in the creation and maintenance of managed fisheries throughout the region. Ex. Stream diversions and aeration projects
- purpose of the Freshwater Fisheries Society of BC and their various initiatives

Unit 4- Manufacturing a Graphite fly rod

It is expected that the student will learn:

- practical skills that will make the student's use of the outdoors more pleasurable and safe
- to build equipment for outdoor use as well as proper care, safety and handling of all outdoor equipment
- safety in the metal shop through tests and practical applications
- the design and construction process in making a project applicable to this course and outdoor recreation
- to make a fly rod and associated tools (rather than buying them), and to be innovative and creative

Unit 5- Entomology (the study of insects) Advanced

It is expected that the student will learn:

- wildlife identification, management and conservation. This includes identification and habitat of wildlife species
- the life cycles of insects and their importance in seasonal food chains pertaining to a lake environment
- to chart hatch information from various resources (articles, video, internet) including personal observations
- to recognize various species of insect, their life stage and seasonal importance to a lake ecosystem
- to identify the anatomical parts of insects in their larval, nymph, pupal, and adult stages
- to focus on advanced tying techniques. Including whip finishing, using various other materials, furs, feathers as well as an emphasis to take their skills and try developing their own unique patterns.
- to be creative and make use of any variety of material that can be used to obtain the desired effect they want in building a fly pattern.
- compare tied flies to real insects in the field

Unit 6- Fly Tying (advanced)

It is expected that the student will learn:

- to build equipment for outdoor use as well as proper care, safety and handling of all outdoor equipment
- practical skills that will make the student's use of the outdoors more pleasurable and safe
- to replicate the patterns of various insects using traditional as well as modern fly-tying practices
- to respect this "art form" as well as the methods and ideals presented to them from professional volunteer speakers/teachers who are going to teach them how to do it
- the various uses of exotic feathers and furs in fly tying
- the ethical use of these various exotic materials such as polar bear fur
- the use of plastics, metals and ceramics in modern fly tying.

Unit 7- Tying Knots and Casting Advanced

It is expected that the student will learn:

- practical skills that will make the student's use of the outdoors more pleasurable and safe
- to build equipment for outdoor use as well as proper care, safety and handling of all outdoor equipment
- the art of fly casting and its uniqueness among other fishing methods
- to "double haul" while casting to obtain a smoother and longer cast
- the various knots necessary in successful fly-fishing process
- to design and custom build their own tapered leaders for varying applications using advanced knots such as the "blood knot"
- practical physical activities to promote a healthy lifestyle

Unit 8- Advanced Fishing methods and boating

It is expected that the student will learn:

- to emphasize the students responsibilities to landowners, the public at large, wildlife and the environment
- about the developing eco-tourism potential of this region pertaining to fly-fishing
- the history of resorts and lodges and of important figures/pioneers of this recreation
- to take advantage of the outdoor recreation potential which is available to the public in the Kamloops area
- safe boating practices, as everyone is required to have a safe boating license
- proper care of boats and outdoor equipment
- rowing, paddling and trolling techniques
- anchoring techniques and systems in shallow and deep water,
- angling ethics and etiquette while in the field
- small motor maintenance and care

Unit 9- Lake and Stream Environment and Ecosystems Advanced

It is expected that the student will learn:

- wildlife identification, management and conservation. This includes identification and habitat of wildlife species.
- to read topographic maps and bathometric charts to further understand lake and lake ecosystems
- to understand the importance of lakes on the interior plateau and their role in an ecosystem
- to understand the importance of streams and rivers and their role in the ecosystem
- to research lakes and streams for their wildlife content and identify wild or stocked populations of wildlife
- the value of lakes and streams pertaining to fresh water content and their role in the water cycle
- lake and stream ecology and the flora and fauna that depend on them for existence
- the effects of illegally introduced alien species on an ecosystem (ie: milfoil, shiners, carp, bullfrogs etc.)
- to research and find the locations of hard to reach hike in lakes that offer unique outdoor recreation activities
- to identify the similarities and differences of insect and fish ecology between moving and stillwaters.
- the symbiotic relationship between trout, char and and the seasonal/cyclical migration of salmon into the ecosystem.

Unit 10- Planning and preparing for an outdoor adventure

It is expected that the student will learn:

- to take advantage of the outdoor recreation potential which is available to the public in the Kamloops area
- to emphasize the students responsibilities to landowners, the public at large, wildlife and the environment
- nutritional importance of carbohydrates, proteins, fats, vitamins and minerals and how they affect the human body
- how to plan an outdoor adventure pertaining to safety, food, shelter and equipment needed
- the importance of “building up” to a trip, to recognize personal limits and goal setting
- teamwork and planning skills in goal setting and achievement of these goals
- outdoor survival techniques such as fire building, shelter building and signaling.
- basics of wilderness first aid and necessary equipment.
- how to catch, clean and prepare their catch (hopefully!)

Instructional Component:

The instructional component of this course includes the use of practical skills, physical activity, applied technologies as well as scientific concepts and methodologies to achieve the outcomes of each of the course units. It involves using literature, practical knowledge of the instructor (and volunteer speakers), indoor and outdoor facilities, and various applicable demonstrations to meet the various learning styles of students and deliver a curriculum through activities and lessons.

Assessment:

Practical Projects	=60%
-Separate rubrics for flies and practical projects	
Written assignments	=20%
Tests/Quizzes (weekly and term)	=10%
Research Projects	=10%

Learning Resources:

- Shop classrooms
- School yard, field
- Computer labs
- Outdoor equipment, provided by school and built/constructed by students
- Guest speakers/teachers (Mo Bradley and members of various outdoor organizations)
- Video
- Books and Magazine Articles

Fly-Tying Assessment/Evaluation: Outdoor-Education

Design: students tying a fly will be assessed on the following for each fly (their best fly can be submitted for grading)

-Size- proper hook selection and attention to detail in representing a “copy” of an actual insect. Body proportion and dimensions. /2

-Stage representation- does the fly correctly represent the life stage of the insect larva/nymph/pupae/adult, with respect to legs, wings, abdominal segmentation, head, thorax, tail. /2

-Colour(s)- appropriate colours and shades used to best represent the appearance of the real insect /2

-Materials- proper tying methods and appropriate materials used in the creation of the fly. /2

-Quality- proper windings, knots and head cements /2

TOTAL /10