

Teaching Surf Instructors to Teach



National Surf Schools and Instructors Association Instructors and Coaches Training Manual



Academic Outreach and Formal Course Development Additional Module for Teachers

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Academic Course Development Introduction

This module is specifically directed towards educators and or surf instructors who want to develop a surf related class for their school or university. It provides two examples of course proposals in the Appendix: one successfully used by a high school teacher to create a Board of Education approved surfing class at Ocracoke High School in North Carolina, and one broad scoped classroom type course prepared as a 3 unit college level classroom course. The subject matter to develop and present each class can be found within this manual, NSSIA's Teaching Surf Instructors to Teach.



College Course Syllabus Development

A syllabus is the basic reference document that guides a student through a course. It is also the framework that allows the teacher to logically build the course to meet predefined explicit objectives. It provides a time line for the instructor and students and helps the instructor define clearly the objectives of the course as outlined by the college. In effect, it sets the tone of the course and identifies clear expectations for the course and students.

A well-constructed syllabus can help to lessen student anxiety and allow faculty to concentrate on instruction. The shortcomings of a syllabus most likely will show up in the final weeks of the semester when students and professors are harried, and misunderstandings become evident for all concerned. It is important to define your view and purpose of the course, as well as the school's objectives for content and skill.

The syllabus provides a time line with key events like exams, papers, and projects highlighted while allowing for some flexibility on the part of the instructor.. The well thought out objectives of the course define for the instructor the activities and materials that must be learned before the end of the semester.

The syllabus is also used by the college to determine the proper school where the course will be located and even if a particular course should be scheduled during a semester. A course proposal is similar to a syllabus, but is in reality the first marketing step prior to inserting details for the full course.

Syllabus Development

First state observable behavior performances starting with "The student will... ". Then begin the syllabus. The format should be similar to the following:

- Topic/Course by number, name, section, credit hours, meeting days and times, room and building, name of instructor, office, any phone numbers instructor is willing to include, office hours, e-mail
- Prerequisites if necessary
- Required purchases/texts and supplies

- Course description and objectives/goals
- Policies regarding attendance, participation and respect
- Policies regarding assignments, academic honesty
- Grading and course requirements
- Other assessment tools (i.e. portfolio)
- Resources for support: study groups, tutors, learning assistance, etc.
- Course Calendar
- How the course is organized... lecture, lab, etc.

Course Descriptions

The Course Description is a short paragraph that describes the purpose of the course such as “to develop a historical perspective of the influences of surfing culture on high school age students in coastal communities.” Additional information would include how the course will be presented. Typical wording might be “The course will be devoted to writing, reading, and critical thinking through individual and group discussion and assignments. This course emphasizes

Course Objectives

Course objectives should be clearly listed so there will be no misunderstandings about what the student should be expected to provide during the class and to learn upon completion of the class.

General Notes

Another good idea is to provide some general notes related to attendance and notification, make-up policy, timeliness of assignments, academic honesty, behavior, etc. An example of attendance expectations might be “Each time you are absent from class you will lose a percentage of the 20% of your grade allotted for class participation. Your dedication to attending class is one of the best indicators of your success in this class.

Daily Syllabus

The Daily Syllabus in the college environment is very similar to the daily lesson plan in the high school environment. It is mostly a guide describing for the instructor what topic will be discussed and expectations for each class meeting. Importantly, it will also describe the purpose of student exercises and participation.

Lesson Plan Format

There are a number of different formats that can be used for lessons depending of the delivery model being used. Since the NSSIA uses the Mastery Model, the following format will be useful in developing classroom lesson plans to be approved by your school district or academic community. Remember that you will need a lesson plan for each sub-topic and meeting of the class.

Outline

- Title
- Background
- Objectives
- Instructional Foci (material list)
- Introduction
- Presentation
- Interactive Items
- Application and Activity
- Evaluation Items
- Summarize and test
- Assignment
- References

Title: Name and Focus of your lesson

Background: For which class is the lesson intended; at what grade level (if any); what is the total length of the lesson (i.e. three 50-minute class periods; or two 90-minute class periods); any other appropriate background information (such as prerequisites for the lesson, etc.)

Objectives: These are written behavioral objectives. What do you expect the student to be able to do at the end of the lesson?

Instructional Materials: What you will need to accomplish the teaching of the lesson (movie, projector, computer, handouts, supplies, etc.).

Introduction: Your anticipatory set – how you will get students motivated and excited about the lesson.

Presentation: The step-by-step heart of the lesson. This needs to be DETAILED. It should have enough detail that another person could follow and teach your lesson plan (assuming they had background in surfing). Make sure you include time estimates so that you know if you are ahead or behind when you are actually delivering the lesson.

Interactive Items: How are you going to interact with/involve the students? You could include this as a separate section or you can just make notes in your presentation section (i.e. label certain steps as II for interactive item).

Application and Activity: How are the students going to apply their newly acquired knowledge? This may be a practice activity, a lab, a class discussion, etc. This can be included as a separate section or you can just make notes in your presentation section (i.e. label certain steps as AA for application and activity).

Evaluation Items: How will you evaluate the student's understanding of the material presented? This includes informal (questioning during the lesson and verbal contributions) and formal (projects, laboratories, exams etc.). This often

will include references to large projects or unit exams. Your lesson plan can even include test questions. If you do this as part of your lesson plan creating your unit exam is easy, you just combine all the questions from the lesson plans!

Summarize and Test: At the end of the lesson you need to leave time to summarize the key items and test the student's understanding with some directed questioning.

Assignment: An outside class assignment for the students to practice with the information. This could be homework from the book, a written assignment sheet, etc. This may be N/A.

References: Any reference to your textbook or other printed material. This may be N/A.



Appendix A – HS Class Proposals
Ocracoke High School /Surfing Class

Surf Class Proposal
Dates: May-October 2000

Outline

Packet Presented to Board of Education (Hyde County, NC) and Updated Information

- A. Written Statement about Course
- B. Letter to Superintendent of the National Park Service for Use of Land
- C. Insurance Issues
- D. Safety Concerns
- E. Vehicle Request Form Hyde County Schools
- F. Budget
 - 1. Fundraisers
 - Halloween Carnival Spook House (October 27th, 2000)
 - Candy Apple Booth (October 27th, 2000)
 - 2. Educational Grants
 - Bright Ideas Grant (tentative)
- G. Swimming Safety
 - 1. Copy of Red Cross Swimming Requirements
 - 2. Permission Slip to Have Swimming Lessons
- H. Buddy Pelitier Surfing Foundation Scholarships
- I. Job Information Local / Global Market
- J. Outline of Guest Speakers
- K. Letter to Potential Students
- L. Permission Slip for School Functions
 - 1. Covers Travel to the Beach
 - 2. Covers Participation in the Course
- J. Athletic Agreement NCSAA
 - 1. Students must maintain a "C" average to remain in the course
 - 2. Students must complete athletic physical
 - 3. Students and Coaches must sign athletic pledge
- K. Copies of Articles on the Class
 - 1. Virginian Pilot
 - 2. Island Breeze
 - 3. Coastland Times
 - 4. Ocracoke Island News
 - 5. Ihigh.Com (Web Site)

Note: This outline was prepared by Joan O'Neill, the K-12 PE/9-10 English/Athletic \ Director at Ocracoke School on the North Carolina Outerbanks.

She was helped by Gary Zbel, another instructor at Ocracoke. In May, 2000, they wrote a 40 page proposal to have surfing added to Ocracoke's curriculum. In July, the school board passed this proposal for grades 7-12. In August and September, three local newspapers carried the story. Ocracoke thus became the first school on the East Coast of the US to have surfing as a class, not just a club.

Typical High School /Surfing Class Lesson Plan

1. TITLE: Surf Reporting, Forecasting and Big Wave Riding
2. BACKGROUND:
 - a. 9th grade
 - b. Science
 - c. Prerequisite: basic physics
 - d. Three 90 minute classes
3. OBJECTIVES:
 - a. Students will learn:
 - i. Anatomy of a Wave.
 - ii. Where does wave energy come from?
 - iii. Wavelength, Frequency and Wave speed of various wave forms.
 - iv. Discover how ocean waves are created and break.
 - v. Understand how the shoreline and shoal impact waves.
 - vi. Learn about surf and weather forecasting of both local and big wave of the North Pacific.
4. MATERIAL LIST:
 - a. "Making the Call – Big Waves of the North Pacific" DVD
 - b. AV Support
 - c. Computer access
 - d. Slinkys
 - e. Short, wide cardboard boxes with filled with one inch of sand filling the bottom of box, some pebbles and a popsicle stick. Enough for 4 – 5 stations depending on number of students.
5. INTRODUCTION: We encounter waves every second, because waves carry energy. Whether its light waves to see, sound waves to hear, or ocean waves to surf, an understanding about waves leads to a greater understanding about energy. Understanding ocean waves will enhance knowledge about weather, our oceans and environment.

6. PRESENTATION/ INTERACTIVE ITEMS/ APPLICATION AND ACTIVITY/EVALUATION ITEMS:

This presentation will discuss the types of waves we encounter, and describe the anatomy of a wave and distinguish between transverse and longitudinal waves. Student will also learn the basics of surf reporting and forecasting by reviewing both local and big wave spots. How weather, coastline and shoals affect waves will also be presented.

a. Class One: Waves and Energy

Interactive Warm-Up Activity:

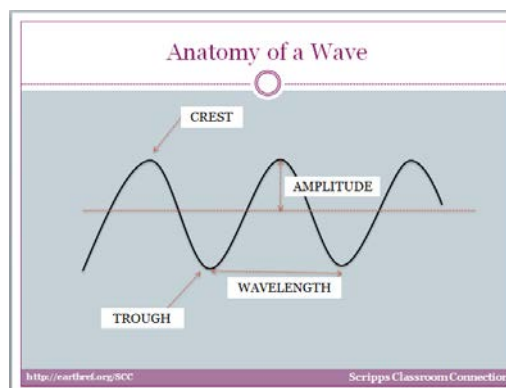
- Have students list as many type of waves as they can think of.
- Ask what do waves transfer?
- Have students work with partner to answer these question for few minutes and then discuss as a class.

Review and Correct with:

- Sound waves, visible light waves, radio waves, microwaves, water waves, sine waves, cosine waves, stadium waves, earthquake waves, waves on a string, slinky waves - These are ALL types of Waves!
- Waves transfer ENERGY!!

Activity Two:

- Have students draw the following diagram in their notebooks:



- Describe and review the parts of a wave:
 - CREST: The peak of a wave
 - TROUGH: The lowest point of a wave

- AMPLITUDE: The height of the wave from the equilibrium to the crest (or trough).
- WAVELENGTH: The length of one full wave cycle. The distance from peak-to-peak or trough-to-trough.

Activity Three with Demo:

- Distinguish between the two types of waves, and gives examples of each. Students should copy down this information in their notes.
 - Transverse - The motion of the medium is at right angles to the direction in which a wave travels.
 - Stretched strings of musical instruments, electromagnetic waves, S-waves in earthquakes
 - Longitudinal - The particles of the medium move back and forth in the same direction in which the wave travels.
 - Sound waves, P-waves in earthquakes
- DEMONSTRATION: Presenter should have a student help demonstrate the motion of these waves using a slinky. One person should move their hand holding the slinky up and down to demonstrate a transverse wave. One person should grab a section of the slinky, and pull it toward himself and release it to demonstrate a longitudinal wave.

Interactive Activity Four:

- Have student group together in pairs and ask them what type of wave is an ocean wave? They may view this as a trick question. Discuss as a class.
 - While it seem surface waves seems transverse, they are considered both longitudinal and transverse due to ripple effect moving in a circular pattern. When there is continuous energy transfer in one direction, due to friction from wind, it will generate more energy in the direction of the wind.

Group Activity Five:

- Watch Chapter One “Surfology” of “Making the Call – Big Waves of the North Pacific”

- Discuss and review the basics of how waves are formed:
 - Wind blows across the ocean surface in areas called “fetch zones” to form chop.
 - As the chop moves out of the fetch zone, it may form into lines of swell.
 - These lines of swell travel across the ocean in groups called sets.
 - The swell forms waves that break when they move into shallow water: reef, structure, beach or headland.

Homework for Class One:

- Students should look up two different online surf report sites and prepare a surf report for a local surf spot (Manasquan) for class the next day:
 - Surfline
 - Magic Seaweed
- Students should watch the local weather and prepare a weather report for class the next day.

B. Class Two: Basic Surf Report and Forecasting

Activity One:

Review Homework Surf and Weather Report

- Review the very basic components of a surf report and how these factors affect a local surf spot (Manasquan):
 - Wind speed and direction
 - Swell height and direction
 - Swell Period
 - Atmospheric Pressure/ weather
 - Shoreline and Shoal (ocean floor)

Group Activity Two:

- Watch Chapter Two “Waimea Bay” and Chapter Three “Outer Log Cabins” of “Making the Call – Big Waves of the North Pacific”

Activity Three:

Learning About Wave Reflection and Refraction

- When a wave hits a barrier, it is reflected depending on the direction of the barrier.
- When a wave enters a different medium at a non-perpendicular angle, the direction of the wave changes. This is called refraction.
- Refraction is a crucial factor in determining the characteristics of any surfing break: the waves can be bigger, smaller, longer, shorter, faster, slower or hollow.
- When a wave travels through a small hole/area in a barrier, it bends around the edges. This is called diffraction.

Interactive Activity Four:

Sand Sculpture

- Have students form groups of four and discuss how the ocean floor affects wave power and size.
- Using a sandbox, have each group create and simulate various situations for a wave to break:
 - Sandbar
 - Jetty or pier with pebbles
 - Headland
 - Reef
- Recreate the Manasquan Inlet Break, which students based their homework on. Set up the ideal conditions for this location.
- Write a group surf report based on these conditions.

Homework for Class Two:

- Research one new local surf spot and write the perfect surf report for that location.
- Research Waimea Bay or Outer Log Cabins online a write the surf report for the day before next class. Explain why the spot is either breaking favorably or not.

C. Class Three: Finish Material, Summarize and Test

Activity One:

Review Homework

- Break into groups and discuss homework. Review and correct if necessary.

Group Activity Two:

Finish the movie and discuss any questions or concerns.

Activity Three: Test

- 1) Name three types of waves found around you?
- 2) What is a fetch zone?
- 3) What do waves transfer?
- 4) Draw a diagram describing the anatomy of a wave.
- 5) Describe the progression of how a wave is formed from chop to a breaking wave.
- 6) How does the ocean floor affect size and shape of a wave?
- 7) What is a closeout?
- 8) Draw the surf spot at Manasquan Inlet and include the ideal wind and swell direction.
- 9) Why is refraction so important in determining the characteristics of a wave?
- 10) Name two types of waves and give one example of each.
- 11) List at least four components of a surf report?
- 12) Where is Outer Log Cabins?
- 13) How does the shoreline affect a breaking wave?
- 14) How can a storm hundreds of miles away create surf?
- 15) Why would it be important to check the surf in person prior to surfing even though you checked the weather and surf report already?
- 16) What is Surfline?

REFERENCES:

1. <http://earthref.org/SCC>
2. 2012 NSSIA MANUAL
3. Making the Call – Big Waves of the North Pacific
4. <http://magicseaweed.com>
5. <http://surfline.com>
6. <http://pbs.org>

Appendix B - Course Syllabus (College Level)

Surfing: The Culture, and Complexity of the Sport

Note: This course can be conducted with or without an on the beach learning to surf component for the course.

Instructor

As a minimum, instructors for this course must be National Surf Schools and Instructors Association certified instructors or coaches. If a beach session is required, the instructor must have, or have someone immediately available with a CPR certification.

Class Objectives – 12/13 week surfing course

While one of the many advantages of the sport of surfing is the physical exercise and discipline afforded the student, an understanding of the history, cultural aspects, and equipment craftsmanship and designs are also important. Students taking the class will gain an understanding the following:

1. History and culture of the sport.
2. Physiosocial aspects of the impact of sport fulfillment on adolescents and adults.
3. Beach environment and physics of wave generation.
4. Sports etiquette and safety concerns
5. Industry and business relationships and laws.
6. Art of surfboard design.

Materials

For a non-surfing course, the student will need:

- Computer with Internet access and e-mail account
- Books: *Surfer's Code*, Shawn Thompson; *Complete Coaching Guide for Surfing*, Bruce Gabrielson (available online)
- *Selected provided reading materials*

If a learning to surf beach session for this course will be conducted, the student will need:

- Surfboard
- Wetsuit
- Transportation to/from the beach

Procedures

1. Tell students that for classroom work they are going to examine the

history, culture, and impact of the sport of surfing as well as the practical aspects of board building, design, basic equipment, and surfing techniques.

2. Hold a class discussion at the beginning of the course in which students discuss their motivations for taking the class. For the final class, discuss how student expectations and participation impacted their own Physiosocial development.

Options

3. If available and when conditions warrant, the class will begin their physical surfing skills development at a local break. Allow time for individual students and partners to practice in both near shore and outside environments.
4. Have students take a field trip to observe both shaping and glassing techniques. Require a report on their observations.
5. Have students take a field trip to observe a contest. Require students to practice judging skills based on their observations in an informal environment. Where practical, watch a surf video and perform the same activity.

Adaptations

Rather than relying strictly on formal papers, beach sessions, and exams, have students sequentially lead smaller group discussions on various aspects of the sport each week. The intent will be to focus on group interactions as well as brainstorming. At the end of the discussion period, each group will provide a summary of their discussion.

Classroom Discussion Questions

1. Important figures in the sport and why?
2. Discuss how the culture of surfing has evolved from the “Golden Era” until present day. Did board design impact culture and if so what were the significant events that influenced each?
3. How has the social acceptance of the surfing community been influenced or changed since the 1950s until present day? What were the specific factors that caused this acceptance or rejection?
4. Discuss how physical conditioning and discipline related to surfing impact Physiosocial development. Debate whether or not learning success might impact Physiosocial development negatively or positively pre-high school, high school and adulthood.
5. Discuss the beach environment including dunes, sand migration, and erosion protection.
6. Discuss major surf breaks around the world including why these breaks are popular or renowned. In their own words, have student’s explain the physics and mechanisms involved with wave generation, energy transfer, break development and how might these be simulated artificially?

7. Discuss localism, surf etiquette, sport safety, and the impact of “surf rage.”
8. Describe various surfboard designs and the conditions favorable for each aspect? Include in the discussion board building and material selection.
9. Describe the business considerations necessary to establish a surfboard manufacturing company, a retail outlet, and a surf school.
10. Review the various laws applicable to the US surf industry and discuss which might be the most important from various perspectives: shop owners, surf school owners, school coaches, and professional managers.
11. Discuss the various organizations associated with the sport including their primary focus area and who they predominately influence.
12. Discuss factors that might help or impact surfing's acceptance as an Olympic sport.

Term Paper

Student will explore one of the following topics: sport culture regional variations and why, sport physiosocial development, artificial wave generation and breaks, business plan creation, what constitutes the “Soul of Surfing” and why.

Evaluation

Group discussion activities (10%) are to be evaluated using the following three-point rubric:

- **Three points:** Careful monitoring of reactions to the work, meaningful contributions to the discussion
- **Two points:** Adequate monitoring of reactions to the work, some contribution to the discussion
- **One point:** Inadequate monitoring of reactions to the work, very little contribution to the discussion

Term Paper: 20%

Two Quizzes: 20%

Midterm Exam: 20%

Final Exam: 30%

Extensions

The movie “Endless Summer” will be shown to the class. Following the movie, the class will be asked to describe why and how the movie influenced the perspective of the sport and youth culture at that time.

Have students search the internet for web sites in each surfing market space and then describe the positive and negative business aspects of the sites.

Options

Ask students to contribute to the assessment rubric by determining criteria for

meaningful contribution to a discussion.

Have students take a field trip to observe various surf shops and describe how each positions themselves within their available marketplace.

.For classes with the active surfing component:

- You can evaluate personal advancement by determining progress from initial skill level through final skill level. Be careful not to equate skill level directly with improvements. For example, an advance surfer starting the class would need to improve significantly to receive the same weighting as a complete beginner who mastered the sport during the class period.
- For extra credit, have students hold a contest with individuals assuming various roles required for a successful event.

Suggested Additional Readings

The Soul of Surfing, Fred Hemmings

Duke of Hawaii, Joe Brennan