

St. Mary's River Project Syllabus

Welcome to the St. Mary's River Project (SMRP)! As part of your independent study, you have the opportunity to become involved in one or more area of study within the project. Your work will involve two parts. First, you will be involved in the hands on, day-to-day workings of the project. This may, for example, include helping with various monitoring efforts, teaching with the environmental education team, or laboratory prep and processing of samples. The second part of your independent study will be to complete an independent project or research a given topic in relation to the project goals.

This syllabus discusses the expectations and requirements for working with SMRP. The time and effort you put into SMRP depends on the team(s) you are on and the number of credits you choose to take. Possible project areas in which to participate include:

- Environmental education
- GPS/GIS
- Web site maintenance
- Continuous monitoring station maintenance
- Community Outreach
- Storm Event Monitoring
- Submerged aquatic vegetation restoration
- Water quality monitoring

Credits and Hours

The list below details the number of hours you are expected to work each week in relation to the number of credits of independent study. For example, if you register as a 4 credit independent study, then you should expect to work approximately 12 hours each week. In order to register for independent study, you must fill out a learning contract, have Bob Paul or Chris Tanner sign it and give Henry Bush a copy of the contract.

<u>Credits</u>	<u># of Hours</u>
1	3 hrs/wk
2	6 hrs/wk
3	9 hrs/wk
4	12 hrs/wk

Bi-Weekly Group Meetings

There will be an initial group meeting with all students taking SMRP as an independent study. After this meeting, students taking SMRP for credit will meet with Henry Bush on a bi-weekly basis during the semester to report on their progress. Meeting dates and times will be established according to the availability of students involved with the project. A schedule will be made available to you within the first two weeks of the semester.

Weekly Tasks

You will need to briefly summarize your work each week in an electronic file located on the shared L:\ Drive. Each week, you will document completed tasks, approximate number of hours worked and any additional information you may want to provide on work that was or was not successfully completed for that week. The file location is:

L:\Biology\St. Mary's River Project\Office\Weekly Tasks\WeeklyTasksWI04.xls.

Each worksheet designates a new week starting with Monday. It is important to keep up on the task logbook as it allows us to assess your progress and participation in the project. Bob Paul, Chris Tanner and Henry Bush will review this file throughout the semester.

If there are periodic server or privilege lockout issues that prevent you from logging your task, please notify Henry Bush immediately. You are still expected to document your time for that week. Create

a separate file that documents your weekly tasks; when the problem is resolved paste that information into the weekly tasks file.

Research Project: Paper/Poster Component

All students will be required to write a research paper or create a poster that is related to the St. Mary's River Project. You will choose a research subject from a list of suggested topics. The number of SMRP credits defines the length of your research paper and the minimal number of references to be consulted. **All papers and posters require scientific references.** The paper/poster will count as 30% of your final grade (the remaining 70% will be determined by your reliable participation in and contributions to the day to day project tasks). See the list below of due dates and weights of each component of the paper/poster. Possible research topics include:

- Calculating light attenuation from collected light data and determining how to incorporate ambient light data into the rate.
- Examining historical discharge and precipitation data - How quickly does discharge decrease after storms? Has the recovery period changed over time?
- The relationship of oxygen or turbidity to precipitation in the tidal estuary
- Reviewing the SMRP environmental education lesson plans and identifying appropriate learning standards that are addressed by the lessons or ways in which the lessons could be improved.
- Exploration of a high school environmental education program
- Continued web-site development (the product of this project will be the web site itself, no additional paper or poster will be required).
- A literature-review on one of the following topics (**requires a minimum of 15 references**):
 - current models used in the spatial analysis of water quality data
 - current small watershed nutrient models
 - current small watershed hydrologic models

Credits	Length of Paper	Minimum Number of References
1-2	5-7 pages	4
3-4	8-12 pages	10

Date	What you must hand in	Weight (% of Paper Grade)
1/27/03	Declare project topic (e-mail OK)	5%
2/18/03	Outline with references	35%
4/25/02	Final Paper	60%

Each component will be required by 5:00 p.m. on the due date listed.

Education Team Members Please NOTE: In addition to the requirements listed above, members of the education team will be required to either 1) create a lesson plan (including a write up and lesson plan evaluation) or 2) re-evaluate and modify a previously used lesson plan to improve weaknesses indicated in previous evaluations. The lesson plan is due at the end of the semester and is worth **10% of your final grade**. Finally, regardless of which option you choose, an assessment of each lesson you teach throughout the semester must be submitted to both Henry Bush and the education team coordinator.

Course Contact Information:

Henry Bush	hbbush@smcm.edu	x4361
Bob Paul	rwpaul@smcm.edu	x4211
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