NREM 463 Water Management

Why is this course being requested?
The course is designed to train CTAHR students in irrigation and water resources management. Various topics are covered in the course following an integrated approach that emphasis technical, socio-economic and environmental aspects. The course is designed to provide the criteria, methods and techniques for the quantitative study and design of irrigation projects, with special emphasis on the problems relating to the management of irrigation systems, for the purpose of a wise and efficient use of land and water resources.

How will the content be organized?
This course has two 50-minute lecture sessions and a one-two hour laboratory session. See attached syllabus for more information.

What other courses at UHM closely parallel the proposed course and in what way the latter make a distinct contribution?
This course does not duplicate any other course offered on campus. In fact it is intended to replace BE 435 Irrigation Principles and Practices course that MBBE submitted a UHM for to delete it in May 2003. Thus, this course makes a needed addition to CTAHR programs.

Where or how does the proposed course fit into the current and future curriculum?
The content of this course fits the needs of CTAHR students who will be dealing with crop production, natural resources and environmental management and soil scientists. Water management is the key in the success of many production and environmental programs.

Why is the number of credits and level justified? Explain the prerequisites and the absence of thereof?
The credit number (3), and the lecture and laboratory times are equivalent to any other 3 credit course in the department. The laboratory time will be used for field trips and/or computer exercise that will reinforce what was covered during the lectures.

How will the course assist students to achieve the critical skills and competencies expected of CTAHR graduates?
In addition to the theoretical part, the laboratory sessions will be used to have hands on experience for the students. They will be trained on how to use different irrigation systems. Some laboratory sessions will involve data analysis and/or computer program use. Students will be responsible to carry out some field and/or laboratory projects. They are required to report and present their research experience.
**How will students be evaluated?**
The evaluation of students includes written exams (1 midterm and 1 final), homework assignments throughout the semester, laboratory reports, and term papers.

**What are the minimum qualifications for teaching this course? Is a qualified instructor now available.**
A qualified instructor for this course could be a person holding a Doctoral degree in Hydrology or Soil Physics. Dr. Ali Fares, a watershed hydrologist at NREM, taught this course during the spring semester of 2003, he is going to teach it again in spring 2005 and will continue teaching it after that.

**How will the course be financed, assuming no further cutbacks?**
The current resources are enough to teach this course and there is no need for additional resources.

**Has the course been offered before? Is there a demand for it?**
The course was taught last spring semester (Spring 2003) for the first time. There is strong demand for this course in the whole college.

**Is the course cross-listed with another department?**
Yes, it is cross listed with TPSS 463 and there is interest from the MBBE department.
Enrollment List, Spring 2003  
Topics in NREM  
NREM 491

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<thead>
<tr>
<th>Students</th>
<th>Institution</th>
<th>Major</th>
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<tbody>
<tr>
<td>Sarah Erwin</td>
<td>MAN</td>
<td>Natural Res &amp; Environmental Mgt</td>
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<td>John Harper</td>
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<td>Jamesen Ramelb</td>
<td>MAN</td>
<td>Tropical Plant &amp; Soil Sciences</td>
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<td>Edward Schmidt</td>
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