1. College:  
[ ] CHASS  [ ] CoBA  
[ ] CoEHHIS  [ ] CSM  
Desired Term and Year of Implementation (e.g., Fall 2008):  
Spring 2017  

2. Course is to be considered for G.E.?  (If yes, also fill out appropriate GE form*)  
[ ] Yes  [ ] No  
("generic" is a placeholder for topics)  

3. Course will be a variable-topics (generic) course?  
[ ] Yes  [ ] No  

4. Course abbreviation and Number:*  
WTRM 401  

5. Title:  
*(Titles using jargon, slang, copyrighted names, trade names, or any non-essential punctuation may not be used.)*  
Survey of Water Management Fundamentals and Practice in California  

6. Abbreviated Title for PeopleSoft:  
*(no more than 25 characters, including spaces)*  
Survey of Water Management  

7. Number of Units:  
2  

8. Catalog Description:  
*(Not to exceed 80 words; language should conform to catalog copy. Please consult the catalog for models of style and format; include all necessary information regarding consent for enrollment, pre- and/or corequisites, repeated enrollment, crosslisting, as detailed below. Such information does not count toward the 80-word limit.)*  
An introduction to the water management industry in California. The course covers key concepts and terms of water planning and efficient use of resource development. The course covers topics such as the California water system and its demand for energy, differences between water resource administration versus management, sources of future supply, conjunctive use of surface and ground water, program assessment, integrated watershed planning, policy making and implementation in a fragmented governmental system with multiple stakeholders and interest groups.  

9. Why is this course being proposed?  
This course will be a foundation course for the Certificate in Water Resources Management & Leadership and also serve as introductory course for students interested in a career in water resources management.  

10. Mode of Instruction*  
For definitions of the Course Classification Numbers:  
[http://www.csusm.edu/academic_programs/curriculum_schedule.htm#CatalogueCurricula/DOCUMENTS/Curricular_Forms_Tab/Instructional%20Mode%20Conventions.pdf](http://www.csusm.edu/academic_programs/curriculum_schedule.htm#CatalogueCurricula/DOCUMENTS/Curricular_Forms_Tab/Instructional%20Mode%20Conventions.pdf)  

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<th>Type of Instruction</th>
<th>Number of Credit Units</th>
<th>Instructional Mode (Course Classification Number)</th>
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<tr>
<td>Lecture</td>
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<td>C2</td>
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<tr>
<td>Activity</td>
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<tr>
<td>Lab</td>
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11. Grading Method:*  
[ ] Normal (N) *(Allows Letter Grade +/-, and Credit/No Credit)*  
[ ] Normal Plus Report-in-Progress (NP) *(Allows Letter Grade +/-, Credit/No Credit, and Report-in-Progress)*  
[ ] Credit/No Credit Only (C)  
[ ] Credit/No Credit or Report-in-Progress Only (CP)  

12. If the (NP) or (CP) grading system was selected, please explain the need for this grade option.  

13. Course Requires Consent for Enrollment?  
[ ] Yes  [ ] No  

[ ] Faculty  [ ] Credential Analyst  [ ] Dean  [ ] Program/Department - Director/Chair  

14. Course Can Be Taken for Credit More than Once?  
[ ] Yes  [ ] No  
If yes, how many times?  
*(including first offering)*  

15. Is Course Crosslisted?  
[ ] Yes  [ ] No  
If yes, indicate which course and check "yes" in item #22 below.  

* If Originator is uncertain of this entry, please consult with Program/Department Director/Chair.
16. Prerequisite(s): ☐ Yes ☒ No

17. Corequisite(s): ☐ Yes ☒ No

18. Documentation attached:
   ☒ Syllabus ☐ Detailed Course Outline

19. If this course has been offered as a topic, please enter topic abbreviation, number, and suffix:* MGMT 482-4

20. How often will this course be offered once established?* Once every academic year.

**PROGRAM DIRECTOR/CHAIR - COLLEGE CURRICULUM COMMITTEE SECTION:**
(Mandatory information – all items in this section must be completed.)

21. Does this course fulfill a requirement for any major (i.e., core course or elective for a major, majors in other departments, minors in other departments)? ☐ Yes ☒ No

If yes, please specify:

22. Does this course impact other discipline(s)? (If there is any uncertainty as to whether a particular discipline is affected, check “yes” and obtain signature.) ☐ Yes ☒ No

If yes, obtain signature(s). Any objections should be stated in writing and attached to this form.

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<thead>
<tr>
<th>Discipline</th>
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<td>PSCI</td>
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<tr>
<th>Discipline</th>
<th>Signature</th>
<th>Date</th>
<th>Support</th>
<th>Oppose</th>
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**SIGNATURES: (COLLEGE LEVEL):**

1. Originator (please print or type name) Date 12-17-15

2. Program Director/Chair Date 12-17-15

3. College Curriculum Committee Date 12-21-15

4. College Dean (or Designee) Date

5. UCC Committee Chair Date

6. Vice President for Academic Affairs (or Designee) Date

7. President (or Designee) Date

**RECEIVED**

MAR 22 2016

By: A. P.
Hi Virginia,

Scott has reviewed the course and the certificate, and has no concerns. PSCI supports the effort.

Thanks,

Steve

--
Stephen M. Nichols, Ph.D.
Associate Professor and Chair
Department of Political Science
California State University San Marcos
333 S. Twin Oaks Valley Road
San Marcos, California 92096

P (760) 750-8086

From: Scott Greenwood <sgreenwo@csusm.edu>
Date: Thursday, April 7, 2016 at 8:29 AM
To: Steve Nichols <snichols@csusm.edu>
Subject: FW: Water Management Fundamentals Review

Hi again,

I looked over both WTRM 401 and the certificate and I think they will be a great addition to the university curriculum. There is a little bit of overlap with WTRM 401, BRS 453 Border Water Conflicts, and my new Gbst course on water, development and conflict but not enough for concern.

Take care,

Scott

Scott Greenwood
Associate Professor of Political Science and Global Studies
California State University San Marcos
333 S. Twin Oaks Valley Road
San Marcos, CA 92096-0001
Ph: 760-750-8050
Fax: 760-750-3005
MGMT 482 ~ Survey of Water Management Fundamentals and Practices in California

Course Leader: Ken Weinberg
Class Room: TBA
Class Meeting Time: Tuesdays, 6:00pm – 8:50pm, 29MAR2016 to 17MAY2016
Office: TBA
Office Hours: Tuesdays 5:30 to 6:00 pm and by appointment
Phone: (858) 967.2113
E-mail: keneinberg@gmail.com; kweinberg@csusm.edu

COURSE DESCRIPTION:

An introduction to the water management industry in California. The course covers key concepts and terms of water planning and efficient use of resource development. The course covers topics such as the California water system and its hunger for energy, differences between water resource administration versus management, sources of future supply, conjunctive use of surface and ground water, program assessment, integrated watershed planning, policy making and implementation in a fragmented governmental system with multiple stakeholders and interest groups.

Management 482 Survey of Water Management Fundamentals and Practices in California ~ A primary objective of this course is to review key concepts, terms, of water planning and efficient use of resource development. Its purpose is to insure all participants will share an understanding of fundamental core concepts and vocabulary as they relate to management and planning issues. MGMT 482 does not delve as deeply into the areas of water science, regulatory policy & legislative, finance or professional relations as do the five modular courses to follow. Instead it takes on overarchign topics such as the California water system and its hunger for energy, differences between water resource administration versus management, sources of future supply, conjunctive use of surface and ground water, program assessment, integrated watershed planning, policy making and implementation in a fragmented governmental system with multiple stakeholders and interest groups. In particular students will learn the difference between planning during a crisis drought event to long range preparedness for expected aridity.

COURSE STUDENT LEARNING OBJECTIVES:
Upon successful completion of this course, students will be able to fulfil the following student learning outcomes:

General:
Students will gain a general knowledge of the process of water resource planning and management as it relates to the California water system.

Specific:
• Learn a general understanding of sources of water supply, water demand, water use efficiency and water allocation rights framework from a historical perspective
• Discuss the importance of integrated water resource planning, watershed inventorying & other problems
• Understand rates, revenues, and rate setting
• Explain capital improvement planning and financing
• Understand water resources planning and management in a multi-stakeholder and political environment
• Discuss the current challenges facing California’s future water supply
COURSE MATERIALS AND OTHER REQUIRED MATERIALS:

Required:


Additional Required Resources:
The instructor will post class materials and grades on the Cougar Courses site for the course accessible ONLY to students enrolled in this course. You are expected to access this website on a regular basis. **You MUST have access to a reliable Internet connection and computer for this course.**

Additional Readings:
The course instructor may post articles or other material to the Cougar Courses site that will be referred to during this course.

PREREQUISITES:
Anyone who benefits from the content of this class is welcome to join with permission of instructor. Should seating become an issue, those participants enrolled in the Certificate of Water Resources Management & Leadership Program will have seniority.

STUDENTS WITH DISABILITIES:
Students with disabilities who require academic accommodations must be approved for services by providing appropriate and recent documentation to the Office of Disabled Student Services (DSS). This office is located in Craven Hall 4300, and can be contacted by phone at (760) 750-4905, or TDD (760) 750-4909. Students authorized by DSS to receive accommodations should meet with me during my office hours or in a more private setting in order to ensure your confidentiality.

CONDUCT OF CLASS:
This class will utilize a mixture of lecture, in-class discussions, online formats and guest speakers for coverage of topics. Success in this class will require active learning by students and professors. Keeping current with assigned reading and class participation are required components of this course. Participation extends beyond class attendance to include asking questions (in and out of class), involvement in class discussions and identifying current examples relevant to the course subject matter.

 Students are expected to act in a professional manner at all times during class. You are expected to be familiar with the University Code of Conduct (http://www.csusm.edu/academic_programs/catalog/).

ALL CELL/DIGITAL PHONES, PAGERS, PDA’S, LAPTOPS OR OTHER ELECTRONIC EQUIPMENT MUST BE TURNED OFF BEFORE ENTERING THE CLASSROOM. If your phone, pager or PDA rings or vibrates during class you will be asked to leave the classroom and we reserve the right not to allow you to return for the remainder of the class.

No recording of the class (or broadcast in any form) allowed without prior written permission of the instructors.

No food should be eaten during class.
GRADING:
Your final grade in this course will be determined based on the following:

<table>
<thead>
<tr>
<th>Final Examination</th>
<th>30%</th>
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<tbody>
<tr>
<td>Midterm Examination</td>
<td>25%</td>
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<tr>
<td>Assignments and homework</td>
<td>25%</td>
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<tr>
<td>Quizzes</td>
<td>20%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</table>

Grade of
- A 90-100%
- B+ 86-89%
- B 80-85%
- C+ 76-79%
- C 70-75%
- D 60-69%
- F < 60%

ASSIGNMENTS:
To help students fulfil the CSUSM Writing Requirement (1,700 words for a 2-unit course) students in this course will complete a one page paper for each assignment on a selected topic covered in the class. Each paper will require students to illustrate their understanding of the topics.

REPORTING OF GRADES:
Students can access their personal grade during the course at the Cougar Courses site for this course. We will not provide scores for any assignment, exam, or quiz via the telephone or e-mail. Please present all questions regarding grading of an assignment or examination in writing for our review no later than two weeks after the assignment/examination was due.

ACADEMIC DISHONESTY:
All students are expected to be academically honest. Reasonable efforts will be taken to discourage cheating. Please refer to the University Code of Conduct and Code of Academic Honesty. Any student violating the Code of Conduct and/or Code of Academic Honesty will be reported to the Office of the Dean of Students and the instructor will request the most severe sanctions available to the Dean of Students. Pay particular attention to plagiarism and unauthorized co-operation with other students when completing class assignments. It is your responsibility to be aware of the Code of Conduct and Code of Academic Honesty and understand clearly what constitutes violations such as plagiarism – ignorance is not an excuse! If you have any questions on academic honesty issues in this course, do not hesitate to contact me.


TENTATIVE CLASS SCHEDULE:

<table>
<thead>
<tr>
<th>Class</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>Mar 29</td>
<td>Course Orientation and Networking Event</td>
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<tr>
<td>Apr 5</td>
<td>Introduction of Historical Practices and Overview of legal issues related to Water Planning Principles and Water Uses Discussion of what is and how to define a watershed, a hydrologic area and hydrologic sub area, defining surface</td>
<td>Required Reading Chapts 1-4 Text</td>
<td>#!—Identify the local watershed planning area and explain planning</td>
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<tr>
<td>Date</td>
<td>Activity</td>
<td>Required Reading</td>
<td>Speaker</td>
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<tr>
<td>Apr 12</td>
<td>Examine detailed water resources management plans for water quality (Regional Basin Plan) and water supply (Urban Water Management Plan) and water facilities master planning, understand integrated watershed management and water supply system planning and importance of resource management strategic plans. Discuss capital improvement programs and effect on water rates. Understand the linkage between land use planning and water supply planning and water quality protection and resource management. Identify various stakeholders in local water resources planning and protection.</td>
<td>Required Reading Chaps 5-7 Text Introduction and Chapter 1, 3-4 Cadillac Desert Beyond Chinatown, Chapter 3</td>
<td>Read Water Resources—Utility of Future handout posted on Cougar Course and write a 3 page summary of significance of report findings for turn in. Speaker TBD, San Diego Regional Water Quality Control Board, Dana Friehauf, SD County Water Authority--Guest Speaker</td>
</tr>
<tr>
<td>Apr 19</td>
<td>Discussion of Case Study #1 Los Angeles Aqueduct, water grab or good planning and management. Trace from concept to implementation to modern era problems. Understand the resource planning principles and factors that pointed to the Owens Valley aqueduct as the best solution, how was it planned, discuss how old resources planning works in today’s environment and regulatory and political standards and how the LA Aqueduct had to adapt to changing regulations, politics and science. Understand how the Colorado River Aqueduct as successor to the Owens Valley LA Aqueduct was financed and discuss how that approach has changed. Guest speaker on San Diego’s formative experience in modern water supply development</td>
<td>Chapter 2 Cadillac Desert Chapter 2 Beyond Chinatown New York Times January 20, 2015 Century Later, the ‘Chinatown’ Water Feud Ebbs Optional: If not seen watch Chinatown film with Jack Nicholson</td>
<td>Jim Taylor , Esq. MA History CSUSM, -Guest Speaker</td>
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<td>April 26</td>
<td>Discussion of how to formulate a “best plan” approach to integrated water management and urban water management plans. Understanding the role of water conservation and water use efficiency and the need for multiple benefit planning and projects and watershed and regional</td>
<td>Required Text Chaps 11 and 12</td>
<td>Read handout on Integrated Regional Water Management Planning. Midterm Exam</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Organizers</td>
<td>Event Details</td>
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<td>May 3</td>
<td>Discussion of issues in local water supply development, how water reuse and recycling fits in as a supply with multiple benefits for watershed, regional and statewide supply, environmental and cost benefits. Discussion of future water conflicts and solutions related to safe drinking water, environmental concerns, global and regional climate change impacts, and management of “common resources” for global needs.</td>
<td>Public Policy Institute of California (PPIC) Managing California’s Water From Conflict to Reconciliation Executive Summary</td>
<td>Panel Discussion by Guest Speakers: Cathy Pieroni, City of SD, Environmental Advocate TBD, and Gary Arant, GM VCMWD Board member ACWA, SDCWA</td>
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<tr>
<td>May 10</td>
<td>Discussion of complexity in solving water reliability issues in multi stakeholder and highly politicized environments Case Study #2 Carlsbad Desalination Project concept to implementation 22 years, Case Study # 3 Fixing the Bay Delta 1982-? Understand the need for these supplies and why it has been so difficult to implement. Ties together planning management, regulations environmental protection, diffused responsibility, rate payer affordability.</td>
<td>TBD</td>
<td>Peter MacLaggan, Poseidon Resources-Guest Speaker TBD, on Bay delta-Guest Speaker</td>
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<tr>
<td>May 27</td>
<td>What are the future trends in water resources planning and management, regulation, water energy nexus, water supply, water conservation</td>
<td>PPIC, California’s Water, April 2015</td>
<td>Final Exam Guest Speaker TBD</td>
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