

## Virginia Mann

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**Subject:** FW: UCC's review of the P form in Water Resources Management

**From:** Suzanne Moineau  
**Sent:** Wednesday, April 13, 2016 6:51 AM  
**To:** Alan Styles <astyles@csusm.edu>  
**Cc:** Virginia Mann <vmann@csusm.edu>; Regina Eisenbach <regina@csusm.edu>; Nichol D. Roe <ndroe@csusm.edu>  
**Subject:** Re: UCC's review of the P form in Water Resources Management

Morning Alan,

Adding a new color... **orange**. There is only one request for consideration on the abbreviation, but this maybe an Academic Programs decision. Virginia/Regina, I would like you all to weigh in as well.

I think we are otherwise ready for Monday. Alan, we will wait for any final response, and then post this email exchange for the committee, along with the edited documents you sent last night.

Best,  
sue

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**From:** Alan Styles  
**Sent:** Tuesday, April 12, 2016 9:21 PM  
**To:** Suzanne Moineau  
**Cc:** Virginia Mann; Regina Eisenbach; Nichol D. Roe  
**Subject:** RE: UCC's review of the P form in Water Resources Management

Hi Suzanne

My replies in **purple** below.

Alan

P.S. Hoping we do not form a rainbow ☺

**Alan K. Styles, Ph.D.**  
Professor of Accounting

**From:** Suzanne Moineau  
**Sent:** Tuesday, April 12, 2016 7:13 PM  
**To:** Alan Styles <astyles@csusm.edu>  
**Cc:** Virginia Mann <vmann@csusm.edu>; Regina Eisenbach <regina@csusm.edu>; Nichol D. Roe <ndroe@csusm.edu>  
**Subject:** Re: UCC's review of the P form in Water Resources Management

Hi Alan,

I wanted to reply to a few points below, but have only skimmed the attachments so will only address the email. Please see my comments in **red** below.

**From:** Alan Styles <[astyles@csusm.edu](mailto:astyles@csusm.edu)>

**Date:** Tuesday, April 12, 2016 5:34 PM

**To:** IITS Administrator <[smoineau@csusm.edu](mailto:smoineau@csusm.edu)>

**Cc:** Virginia Mann <[vmann@csusm.edu](mailto:vmann@csusm.edu)>, Regina Eisenbach <[regina@csusm.edu](mailto:regina@csusm.edu)>, "Nichol D. Roe" <[ndroe@csusm.edu](mailto:ndroe@csusm.edu)>

**Subject:** RE: UCC's review of the P form in Water Resources Management

Suzanne and UCC members

Thank you for your questions and comments on the proposed certificate and its courses. I am providing my replies below and in attachments.

We are eager to meet the deadline for two readings at Academic Senate and stand ready to address any additional questions you may have.

Alan

P form:

1. There is language in the P form that suggests that there are multiple certificates "the first certificate – intermediate level"; however, we have only received one certificate. The proposal makes note of "different levels", yet only the intermediate level is included. Can you clarify?

**We are planning that the Certificate will have a total of three levels at some point in the future, BUT based on the identified need in the water management industry we are initially proposing the Certificate at the intermediate level. This proposal is for the intermediate level ONLY. We will submit separate proposals for the other levels at future dates when we have developed curriculum for the separate levels. I acknowledge that approval by the college and university curriculum committees for this current proposal would not allow us to offer the additional levels of the certificate program. I have revised the New Certificate Proposal to more clearly state that it we are proposing for the Intermediate Level only.**

2. Along the same lines for point # 1, UCC is concerned about the acceptable admission requirements of a 'bachelor's degree in any discipline' when this is an intermediate level certificate. The two other acceptable options include rather extensive experience in water management. Will there be concern for how to differentiate instruction to individuals who have an AA and 5 years of experience, and those with a bachelor's degree in art history, for example?

**The intent of the certificate program at the intermediate level is to educate and train students to become water managers primarily within the water organizations. The dichotomy in admission requirements is the result of consultation with local water industry leaders aiming to meet water management needs through promotion of existing technical/engineering employees and recruitment of individuals with a bachelor's degree and a minimal education in water management. Local water industry leaders have stated that they will not recruit/promote existing employees of water organizations that do not possess a bachelor's degree unless they have a combination of high level technical/operational knowledge and supervisory experience. These non-bachelor's degree employees have the technical knowledge, but do not possess the management level knowledge – that will be the role of the certificate at the intermediate level. The water leaders have stated an intent to hire individuals possessing bachelor degrees that have a level of knowledge of the water industry issues provided in the curriculum. The curriculum for the intermediate level is designed to provide a wide coverage of the water industry from a management perspective. In common with other students, the individual with a bachelor's in art history will be required to pass the Survey course which provides a strong foundation in knowledge of the water industry.**

**Just to be clear, will the Survey course pose a challenge to the instructor for the reason mentioned? It seems that the Bachelor's in art history will have no foundation while the AA with 5 years of supervisory experience will have extensive knowledge about the water industry. UCC wondered if you might want to specify the discipline within the bachelor's degree? It remains a little unclear how the individual with a bachelor's in art history can enter into an intermediate level of study vs. an entry-level certificate. Is the presumption that having a bachelor's degree, alone, somehow positions a candidate at a sufficient level to begin intermediate study? Any further clarification is appreciated.**

We assume that possession of a bachelor's degree represents a level of general education and self-learning skills that will allow the student to gain the knowledge necessary to be a manager in the field. Example of a student with an AA and technical qualifications, would be a supervisor of water operators. This individual will possess technical knowledge/certifications on the treatment of water for delivery to customers and/or treatment of waste water, operation of machinery, emergency procedures when water is contaminated, etc. and has some level of supervisory skills. BUT this individual may not have knowledge on how water is delivered (allocation determination and movement of water) to the water district from the Metropolitan Water system and/or the San Diego Water Authority. They are unlikely to have knowledge of the role of water managers in the political process of the Water District Board and/or the water rate setting process. They will not be extensively familiar with the environmental laws that apply to the Water District and the rules for water provision to new developments in a city.

The individual possessing a bachelor's degree will not possess the technical knowledge, but will have a higher level of education that can allow them to learn the bigger picture/water management perspective necessary to be a water management professional. It is possible a student with a bachelor's degree in art history might find the material more challenging than say someone with a bachelor's degree in business administration, but the bachelor's in business could find the environmental and science/engineering course challenging? Many of the current general managers were promoted from within and had a variety of bachelor's degree disciplines (and some not bachelor's degree), BUT they had to learn much of the materials in the intermediate certificate "on the job." Given the approaching "silver tsunami" of retirements, the industry does not have the time to rely on "on the job training." For this reason the water industry approached CSUSM to develop an academic program to replace/supplement the prior approach.

Only non-bachelor's degree holders with extensive technical knowledge AND supervisory/management experience will be admitted to the program. The future entry-level certificate programs will admit individuals that do not have a bachelor's degree and do not have technical certifications and/or supervisory experience.

Many professions have similar admission requirements. Consider accounting; you cannot be a CPA unless you have a bachelor's degree, the degree does not have to be in accounting or even business, as long as you have passed a selection of accounting/business courses specified by the State Board of Accountancy. Individuals with an AA in accounting and extensive bookkeeping and tax preparation experience, cannot become a CPA until they have completed a bachelor's degree and the list of accounting/business courses.

**This is very comprehensive and makes sense to me. I believe it provides a thorough explanation and rationale for the categories. I will bring this back to the committee.**

3. The first paragraph of the catalog copy for the program is more of a justification than a description. UCC recommends beginning the Catalog Description with the sentence that explains the "aim" and leaving the rest. Is this agreeable to you?

**Yes, I agree. I am assuming that you are suggesting that the first paragraph would now be as follows: Yes, thank you!**

"The Certificate of Specialized Study in Water Management & Leadership aims to meet the need to recruit and educate the next generation of water industry managers and leaders. This certification will provide recognition of educational achievement. Many constituents of the water industry have expressed concern over the disproportionate numbers of water industry professionals retiring in the coming years. This "silver tsunami" is impacting the entire state and the nation. Water agencies, professionals and regulators across the region have expressed concern over the impact of the loss of knowledge and leadership with the large scale retirement of technical, managerial and executive personnel."

4. Incorporating "C" in the acronym of CWMI is confusing as we typically do not see the 'certificate' component included. The courses are coded as WTRM and we typically see the program acronyms being synonymous with the courses. UCC suggests uniformity.

**Recently, we decided to revise the name of the certificate program to:**

**Certificate in Specialized Study in Water Management and Leadership-Intermediate Level**

The removal of the word “resources” was recommended by our Advisory Board as “Water Resources” has connotations of a science emphasis not intended for this water management program.

We accept the suggestion to remove the “C”, but I am confused with the suggested acronym. Are you suggesting WMI or WTRMI? WTRMI would be aligned with course codes and distinctive – “I” would denote Intermediate.

Yes, we were suggesting congruity between the courses and the Program. I have to defer to Regina/Virginia as to whether we can have 5 letters as I have never seen this. I have seen three, so it may be possible. If it is, are you agreeable to having WTRMI as the program abbreviation?

I am somewhat confused. The intent of my discussion previously is that we have courses (at any level) with the WTRM course designation (WTRM 401, 411, 421,). The abbreviation for the Certificate program at the Intermediate Level would be WTRMI - WTRM for Water Management and I for Intermediate. If the abbreviation for the discipline/program needs to four letters then we are fine with WTRM for Water Management as ACCT is for Accounting.

Yes, Alan, I was just confirming that you are okay for us to change the original abbreviation of CWMI to WTRMI. If we cannot have 5 letters, it may be good to have a 3 letter abbreviation for the courses (e.g. WTM) and 4 for the program (e.g. WTMI). I believe Academic Programs will need to advise on what is allowable. I vote for O2MI as a fun twist!



C forms:

We only had time for a quick look at the courses today. We have a few general points:

1. There is inconsistency in 'requiring consent' of the program director and not. Is it your intention to have all courses require consent, or to place a prerequisite requirement of acceptance into the certificate program? Or, did you really intend to have some courses require consent while others do not?

**It is our intent to have some courses require consent for enrollment while others do not. The Survey course (WTRM 401) will be open for enrollment by individuals (CSUSM and non-CSUSM students) generally interested in water management issues and not necessarily planning (or eligible) to apply for admission to the certificate program. Our hope is that undergraduate majors at CSUSM will enroll in the course (maybe even as an as an elective for some majors) and as a result consider a career in water management. We envision the WTRM 411 Leadership course could have similar relevance/applicability for CSUSM students not in the certificate program. The other courses are intended for students admitted to the certificate program.**

Thank you for the clarification.

2. WTRM 401: It was suggested that the title be revised to Survey of California Water Management Fundamentals and Practice.

**The suggested title would imply that the course covers the water management fundamentals in California only. The course covers the water management fundamentals beyond California (present and historical) and the practice of the fundamentals in California.**

Understood – I wonder if it is most appropriate to have a comma after the word fundamentals then? I will pass your clarification along to the committee.

I am not sure about the comma, as I am an accounting professor ☺ Would it be common to place a comma before “and” in a course title? If the committee believes it would be clearer, we would not object to the addition of a comma.

**As a former accountant turned speech-language pathologist, I appreciate this joke!! I believe the comma will delineate the point you are making which is that the California belongs to "practice" and not the "fundamentals". I will let the committee weigh in.**

3. WTRM 421 and 423 – these courses are both 3 units in the P form, but the C forms indicate that they are 2 units. Can you please revise.

**The P form is correct. The C forms are incorrect, the courses are 3 units – this was an oversight.**

**We will make the adjustment.**

WTRM 425 – UCC would like Chemistry and Physics to review the courses. Academic Programs will reach out to those chairs on your behalf for signature.

OK.

Thank you very much for your comprehensive responses. I look forward to hearing back from you on the remaining clarifications.

Best,  
Sue



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**Yes, I agree. I am assuming that you are suggesting that the first paragraph would now be as follows:**

“The Certificate of Specialized Study in Water Management & Leadership aims to meet the need to recruit and educate the next generation of water industry managers and leaders. This certification will provide recognition of educational achievement. Many constituents of the water industry have expressed concern over the disproportionate numbers of water industry professionals retiring in the coming years. This “silver tsunami” is impacting the entire state and the nation. Water agencies, professionals and regulators across the region have expressed concern over the impact of the loss of knowledge and leadership with the large scale retirement of technical, managerial and

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**OK.**



## **CERTIFICATE OF SPECIALIZED STUDY IN WATER MANAGEMENT AND LEADERSHIP - INTERMEDIATE LEVEL (WTRMI) \***

The Certificate of Specialized Study in Water Management & Leadership – Intermediate Level aims to meet the need to recruit and educate the next generation of water industry managers and leaders. This certification will provide recognition of educational achievement. Many constituents of the water industry have expressed concern over the disproportionate numbers of water industry professionals retiring in the coming years. This “silver tsunami” is impacting the entire state and the nation. Water agencies, professionals and regulators across the region have expressed concern over the impact of the loss of knowledge and leadership with the large scale retirement of technical, managerial and executive personnel.

The Certificate of Specialized Study of Water Management and Leadership – Intermediate Level program requires successful completion of courses that combine into 12-semester unit Certificate. The classes have been developed and will be taught by water management faculty members on campus and practicing water management professionals in the region. Each class is designed to engage students by integrating theories and real world applications.

### **Admission and Application Requirements**

- At least one of the following:
  - Possession of a Grade II or higher water or wastewater related technical certification issued by the state of California plus at least two (2) years in a supervisory capacity at a retail, wholesale or regional water/wastewater utility or a related public-entity regulatory or planning agency; or,
  - An Associate’s degree from an accredited college plus at least five (5) years in a supervisory capacity at a retail or wholesale water/wastewater utility or a related public-entity regulatory or planning agency; or,
  - Bachelor’s degree from an accredited college or university.
- Submission of the online WTRMI Program Application (<http://www.csusm.edu/el/WTRMI>)
- Submission of current resume
- Hard copy transcripts from all colleges and universities attended and mail them to:

California State University San Marcos  
Extended Learning  
Attn: Student Services/WTRMI Program  
333 S. Twin Oaks Valley Rd.  
San Marcos, CA 92096

### ***Courses:***

|          |   |
|----------|---|
| WTRM 401 | 2 |
| WTRM 411 | 2 |
| WTRM 421 | 3 |
| WTRM 423 | 3 |
| WTRM 425 | 2 |

*\*The Certificate of Specialized Study in Water Management and Leadership is offered through Extended Learning.*

CALIFORNIA STATE UNIVERSITY  
SAN MARCOS

**Procedure for Submitting Proposals for New Certificates**

Each new Certificate is subject to review and approval by the relevant college curriculum committee and the Academic Planning and Policy Committee of the Academic Senate. Requests for approval of a Certificate should be submitted according to the timeline of the appropriate college curriculum committee and should follow the format below:

- 1. Full and exact title of the Certificate program and level of the program (Certificate of Specialized vs. Advanced Study). Name and position of the person(s) submitting the proposed Certificate. Intended implementation date of the program.**

CERTIFICATE OF SPECIALIZED STUDY IN WATER RESOURCES  
MANAGEMENT AND LEADERSHIP - - INTERMEDIATE LEVEL - For  
Credit Program

Submitted by Dr. Alan Styles, Director, Certificate in Water Resources  
Management and Leadership (Non-credit program)  
Intended implementation date: Summer 2016

- 2. List of the existing programs in the discipline(s) under which the new Certificate is to be offered.**

The program will be offered through Extended Learning, in partnership with  
the College of Business Administration

- 3. List of the existing program(s) that may be affected by the proposed Certificate.**

Certificate in Water Resources Management and Leadership - Non-credit  
program.

**4. Purpose of the proposed Certificate, including specific academic objectives served, professional applications, potential student market, and a statement explaining the need for the Certificate in comparison to existing related majors, minors, and Graduate programs.**

Many constituents of the water industry have expressed concern over the disproportionate numbers of water industry professionals retiring in the coming years. This “silver tsunami” is impacting the entire state and the nation. Water agencies, professionals and regulators across the region have expressed concern over the impact of the loss of knowledge and leadership with the large scale retirement of technical, managerial and executive personnel. The Certificate of Specialized Study in Water Resources-Management & Leadership – Intermediate Level aims to meet the need to recruit and educate the next generation of water industry professionals.

The addition of ~~With differing~~ levels ~~in the future~~, the Certificate programs will provide a vehicle for different categories of students:

- Entry-level participants who want to enter the water industry
- More experienced individuals who wish to transition into the water industry
- Existing water industry personnel who want to further develop their careers
- Enabling community college graduates with AA degrees and technical certifications in water related disciplines, such as from Palomar and Cuyamaca Community College, to progress into management
- Developing the next-generation water industry leaders
- Allowing retiring leaders to pass on knowledge

This program offers several advantages over more traditional programs, and existing majors and minors:

- Allows employees to develop education and careers; that is, they may participate while continuing to work
- Allows employees to gain qualifications that have currency in the water-related industry
- Provides structured education path for new-entries to water management; the water industry incorporates diverse disciplines; today, students at best may be able to piece together disparate courses and offerings from multiple sources
- Established in conjunction with industry, resulting in content tailored to the needs of industry
- Funding of programs as a partnership between state and water industry and related industries

~~This first eCertificate – the This first certificate – the intermediate level - - intermediate certificate level~~ will ~~predominantly target focus on~~ students that are currently working in the water industry and its related fields, but wish to attain management level positions.

**5. List of the courses, by catalog number, title, and units of credit, as well as total units to be required under the proposed Certificate.**

12 units of coursework will be required for the Certificate. Students must successfully complete all of the following courses:

WTRM 401 -- Survey of Water Management Fundamentals and Practices in California (2)

WTRM 50411 -- Leadership for Water Managers (2)

WTRM 502421 -- Environmental Issues, Policies & Regulations for Water Managers (3)

WTRM 503423 - Finance and Professional Relations for Water Managers (3)

WTRM 504425 - Core Concepts of Water Science, Engineering and for Water Managers (2)

**6. Definition of the minimum level of competence to be demonstrated to earn the proposed Certificate, and a description of the means of assessing that competence (examination, practicum, field experience, etc.).**

The minimum level of competence that must be demonstrated to earn the proposed certificate will be based on the following:

1. The Certificate will require successful completion of 12 units of academic credit.
2. Students must have an average GPA of 2.5 or higher for the 12 units completed for a Certificate and must have earned at least a C (2.0) in each of the courses.
3. The minimum level of competence for each course will be determined by the instructor(s) based on assessment of the student meeting the stated learning objectives for the course.

Assessment techniques utilized by the instructors will include (but not limited to): examinations, written assignments, oral presentations, electronic presentations and team projects.

**7. Description of assessment strategies for waiver of lower division requirements (where applicable).**

N/A

8. **New courses to be developed. Include proposed catalog descriptions in the Certificate proposal. "C-forms" for these courses should accompany the proposed Certificate package for curricular review.**

**WTRM 401 - Survey of Water Management Fundamentals and Practices in California (2)**

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.

**WTRM 411 - Leadership for Water Managers (2)**

Application of fundamental leadership principles to leadership in the community of water organizations. Examines the impact of the organizational forms and roles of water organizations on leadership behavior.

**WTRM 421 - Environmental Issues, Policies & Regulations for Water Managers (3)**

Examines federal, state, regional, local, and special district governance with respect to environmental water issues and policies that have been enacted and implemented with emphasis on the American West.

**WTRM 423 - Finance and Professional Relations for Water Managers (3)**

*Finance and Professional Relations* is an introduction to finance management, human resource management, and administration of water agencies in California. The course covers topics such as budgeting, rates, revenues, financing, financial planning, capital projects, accounting, organizational structure and development, employment law, labor negotiations, investigation and discipline, and policy development.

**WTRM 425 - Core Concepts of Water Science, Engineering and Technology for Water Managers (2)**

Examines water science and engineering technology from the molecular level through the macro treatment and distribution scale of a functioning water treatment and delivery system. Examines the properties of a water molecule, where water supplies comes from, how it becomes contaminated and how the polluted water is treated and distributed to the end user, and then recovered and recycled during wastewater treatment . The issues and key concepts that guide professional scientists and engineers in water/wastewater system operation.

9. **List of all present faculty members, with rank, appointment status, highest degree earned, date and field of highest degree, and professional experience, who would teach in the proposed aggregate of courses.**

John Adriany, Ph.D., Consultant, ChemMetrics. Thirty years of experience as a Principal Scientist/Chemist for various organizations and projects including: Agricultural Waiver Monitoring Group, Navy Region Southwest Division and Clean Marina Program.

**Lee Brown, Ph.D., Adjunct Faculty Professor, California State University San Marcos.** Thirty years as a hydrologist and academic including positions as Director of the Environmental Resource Center and chief hydrologist for the Nature Water Conservancy (Idaho).

Kevin Hardy, M.P.A., J.D., Adjunct Faculty, California State University San Marcos. General Manager, Encina Wastewater Authority, Carlsbad, CA. Twenty-five years of experience in management and leadership positions in local government and water authorities.

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**Ken Weinberg, Master of Public Administration, Adjunct Faculty, California State University.** Director of Water Resources, San Diego Water Authority, 1997-2015.

**Tom Scaglione, Master of Business Administration, CPA.** Adjunct Faculty California State University and Palomar Community College. Assistant General Manager and Chief Financial Officer, Vallecitos Water District, San Marcos, CA. Twenty-five years of experience in public accounting, finance, and public administration.

Ken Weinberg, Master of Public Administration, Adjunct Faculty, California State University. Director of Water Resources, San Diego Water Authority, 1997-2015.

John Adriany, Ph.D., Consultant, ChemMetrics. Thirty years of experience as a Principal Scientist/Chemist for various organizations and projects including: Agricultural Waiver Monitoring Group, Navy Region Southwest Division and Clean Marina Program.

**Charles Wyatt, BS Civil Engineering, Professional Engineer.** Twenty-seven years of experience as a civil/environmental engineer with focus on management of complex environmental issues at the nexus of built infrastructure. Project experience ranges throughout the United States as well as Central and South America.

10. **Instructional resources (faculty, space, equipment, library volumes, etc.) needed to implement and sustain the Certificate program.**



Ongoing access to SMART classrooms and online course management system (e.g., Moodle/Cougar Courses).