



# Articulation and the UC/CSU “a-g” Subject Requirements

Creating High Quality  
CTE Course Submissions

- University of California
- Office of the President

# This Workshop Will Cover:

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- Course Review Process & Policies
- Designing CTE Course Submissions
- Policies and Programs
- Resources and Websites
- Updates and Enhancements

# Purpose of Articulation

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- A way for UC faculty to communicate to high schools the sequence of courses that they believe are essential in order for students to be prepared for college work
- “a-g” pattern determines if students meet minimum eligibility requirements
- Articulation is the connection between high school courses and lower division UC and CSU coursework

# Articulation & “a-g” Requirements

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- The standard for course approval is “College Readiness” and therefore course curriculum must be rigorous and exceed CA State Standards.
- When building your school’s UC course list, certain requirements must be met for courses to qualify within each “a-g” subject area.

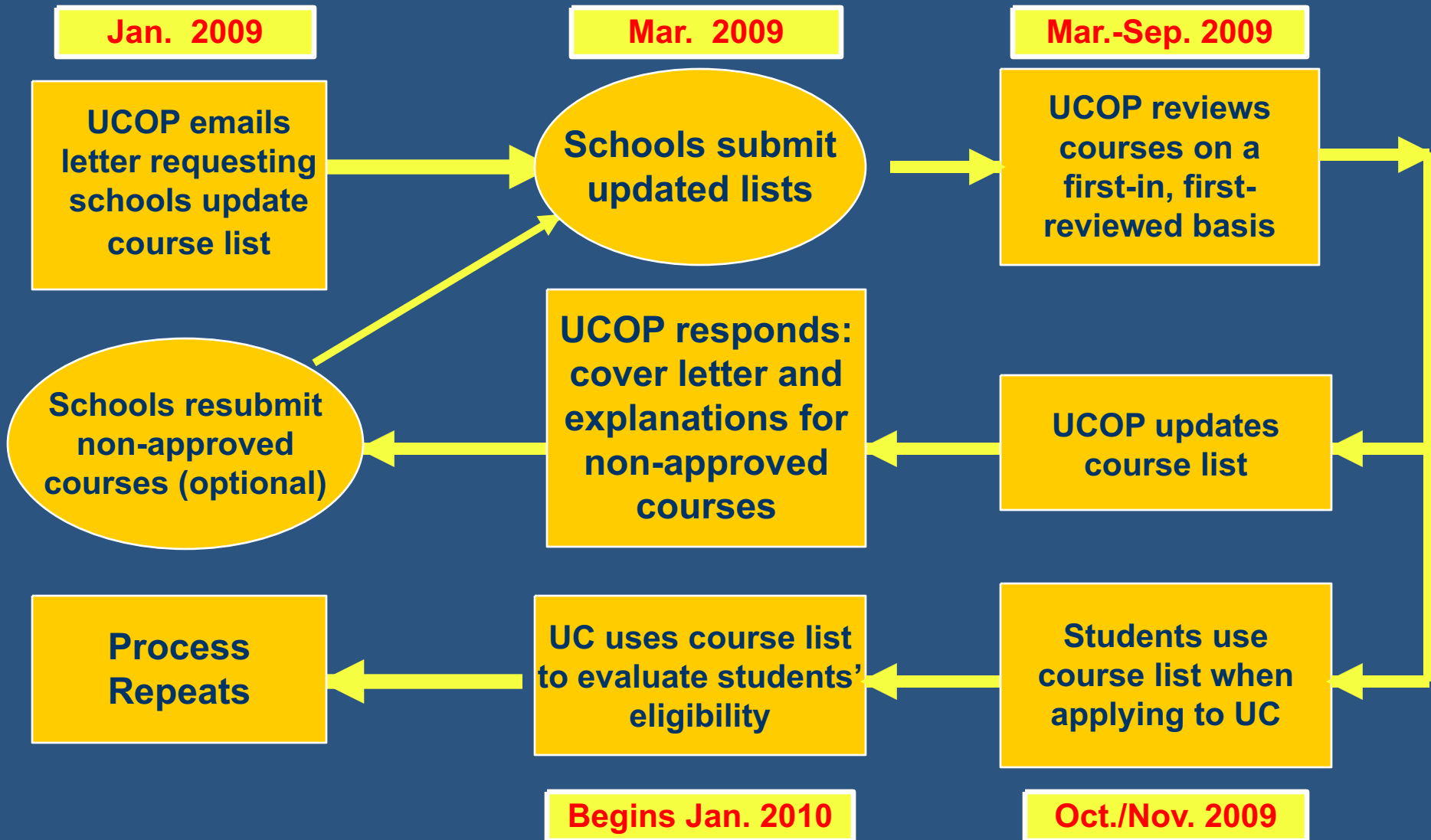
More details on this later

# Course List Update Process

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- Schools should update every year.
- Review can take up to three months.
- Steps of course review:
  - Individual reviewers (Dual-Blind Review)
  - Team of reviewers (as needed)
  - UC Faculty Subject Area Expert

# Course Review Process



# Course Submissions



Course Revisions

Previously Approved

New Courses

# Adding to the "a-g" Course Lists

- No course descriptions required for standardized COURSES (previously approved):
  - Course reinstated within three years
  - AP and IB
  - Approved Cyber High courses
  - Approved ROP/C courses
  - Approved CDE Agricultural Education courses
  - Approved "Project Lead the Way" courses
  - AVID Senior Seminar
  - CSU's EAP Expository Reading and Writing course
  - Approved Online Courses
- Community College Courses
  - Should be reported as CC courses on the transcript



# Designing

## CTE

### Course

# Submissions



# Career Technology Courses

- Courses that connect academic content knowledge with practical or work-related applications
  - Provide high quality, challenging curricula that use and advance concepts and skills in the “a-f” subject areas
  - Integrate academic knowledge with technical and occupational knowledge
  - Include tasks that are rich in opportunities to develop knowledge of tools, processes and materials; to engage in problem-solving and decision-making; and to explain what one is doing and why

# Career Technology Courses

- An approved course should demonstrate a close connection with the academic curriculum by including the requirement that there be at least one prerequisite or co-requisite, or be an advanced course designed for the 11<sup>th</sup> or 12<sup>th</sup> grades.
- Approved courses may be designed from two different approaches:
  - Emphasize academic concepts using career-related applications to make ideas accessible to students, or
  - Designed using career and technical applications to provide an entry point for understanding theoretical or technical aspects of an academic discipline.

# Career Technology Courses

- More than **6,500** CTE courses have been approved to satisfy “a-g” requirements.
- Examples include engineering, agriculture, health and biotechnology, design, business.
- Most courses fall into the science, VPA and elective subject areas.
- UC and CSU faculty have established CTE guidelines for courses for the elective area.

# New Subject Area Templates

- Schools are asked to complete subject-specific template. Each template will ask for information that is subject specific:
- Examples:
  - History and English templates will ask for detailed information regarding reading and writing assignments.
  - Laboratory Science template will ask for detailed information regarding lab work, not just a list of labs.

# Cont. New Subject Area Templates

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## New Templates cont.:

- Visual and Performing Arts template will ask for specific information on how each strand of the five state standards is covered
- Elective area will require the use of the subject specific template:
  - Ex. Earth Science will have the laboratory science template

# Dispelling The “a-g”/CTE myths

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- The UC approval process discourages the submission of CTE courses.

False. UC has made tremendous strides over the past few years to increase the number of CTE approved “a-g” courses.

# Dispelling The “a-g”/CTE myths

- Identifying “a-g” course submissions as CTE will decrease the likelihood of approval.

False. In fact by not identifying the course as CTE you may increase the likelihood of the course not being approved.



# Dispelling The “a-g”/CTE myths

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- Course Context and Historical Development sections in the submission template have little additive value.

False. These sections provide critical information regarding the scope and sequence of the course being offered as well as the setting within which it is being taught.

# Key Points

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- Vertical Subject development vs. Horizontal
- Key assignment should be detailed and integrated
- Identifying the courses as CTE is necessary
- Balanced emphasis between the academic and the career
- Accuracy of details such as pre-reqs, grade level, categories and textbooks.

# Curriculum Integration Program

- CIP is intended to promote integration of academic and career-technical course content in a way that is more likely to gain “a-g” approval.
- Currently ten \$5,000 curriculum development grants are available.
- Developing UC Curriculum Integration Institute
  - 3.5 day training and curriculum development retreat
  - Upon completion teachers will become part of the regional UC Cadre of Experts
  - Select graduates will be offered an opportunity to serve as Course Evaluators
- Courses that have been approved:
  - Auto Physics
  - Medical Arts and Science
  - Physics of Electronic Robotics



# Policies & Programs

# Honors Courses

- All AP and designated IB courses accepted automatically if approved through the College Board AP audit
- 3-semester/4-quarter-unit UC-transferable college courses that fall within "a-g" accepted for honors credit
- School-created honors courses must be at the college level, and meet the following criteria and fall within course limitation:
  - Comparable to AP, IB or college-level courses
  - Intended for 11th- and 12th-graders
  - Appropriate prerequisites
  - Comprehensive written final exam
  - Meet subject-specific criteria

# New Policy for Online Courses

- UC faculty approval of online courses is a two-step process.
  - Step 1 – Review and approve provider
  - Step 2 – Review and approve courses
- UC is reviewing several online providers' applications.
- Faculty has approved five online providers and continues to work with others for approval:
  - K12
  - P.A.S.S./Cyber High
  - UCI Extension (UCCP)
  - National University Virtual HS
  - Education Program for Gifted Youth (EPGY) Online High School at Stanford University
- Full implementation of policy will take several years.

# Current Online Policy

- Until full implementation of new policy, current online policy will continue:
  - Principal can certify course
  - Add course to students transcript
- Online courses cannot satisfy the laboratory science or visual and performing arts subject requirements.
  - UCCP may offer online Lab courses w/ certified wet lab
- Online courses taken at Community Colleges that are ASSIST designated as UC transferable will satisfy the specific “a-g” subject area requirement.



# Resources & Websites



# Doorways

- Doorways portal: <http://doorways.ucop.edu>
- URLs for all Doorways sites
  - “a-g” Guide: <http://www.ucop.edu/a-gGuide>
  - Course lists: <https://doorways.ucop.edu/list>
  - Online update: <https://doorways.ucop.edu/update>

# “a-g” Guide Website

- Annual updates
- Resource for:
  - “a-g” requirements
  - Course descriptions
  - New course submission
  - Cadre of Experts resources
  - FAQs
  - Enhancements for 2009–10
  - Contact information

# UC Counselor Conference

- <http://www.universityofcalifornia.edu/educators/counselors/resources/materials/conferences.html>
- Annual regional conferences
- Resource for:
  - Admissions News
  - Counseling Basics
  - A-G at UC: Policies and Updates
  - Articulation, Admission and Selection
  - Meet the Campus Admissions Directors
  - Personal Statements
  - Freshman Q&A with Senior Evaluators



# Updates & Enhancements

# Revisions to UC Course Approval Process

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- UC is implementing an enhanced process that will include a review by an external subject matter expert as well as a UCOP reviewer.
- The revised review process will be phased in over the next 2-3 years.
- Integrating Dual Blind Reviews over next two years

# Enhancements for 2009–10

- UC will begin to implement additional automated course update data entry processes
  - Grade level
  - Honors levels
  - Pre-requisites
  - Course titles
- More intuitive information flow and uploads
- Eliminating unnecessary information on pages
- More direct communication between evaluators and course contact
- Data input checks for pre-approved courses to eliminate multiple re-submissions...and more!

# Questions? Contact Us...



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# Articulation & “a-g” Requirements

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## Reminder:

- The standard for course approval is “College Readiness” and therefore course curriculum must be rigorous and exceed CA State Standards.
- When building your school’s UC course list, certain requirements must be met for courses to qualify within each “a-g” subject area.



# A. History/Social Science

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- All history courses should promote historical understanding and critical thinking and encourage analysis that requires going beyond the facts.
- U.S. History
  - Course should cover full span of American History.
- World History, Culture and Historical Geography
  - Transregional/Transcultural history
- American Government
  - Must focus on federal level

# B. English

- Reading
  - Must include full-length works.
  - Full length works within an assigned anthology must be identified.
  - Readings should be incorporated into the curriculum.
- Writing
  - Must require extensive expository writing
- ELD courses can be approved with or without limitations.
- Approved **CSU Expository Reading and Writing** course. The exact course title must be adopted.

# C. Mathematics

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- Any level of math taken over two years is acceptable, but credit is granted only for one year. The second semester of each year.
- Honors courses must be at least at the math analysis or pre-calculus level.
- UC, CSU and high school faculty are finalizing revisions to clarify math and science guidelines.

# D. Laboratory Science

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- Lab science courses fall into three categories
  - College-prep courses in biology, chemistry or physics
  - College-prep courses incorporating applications in some other scientific or career-technical subject area but which cover core concepts expected in one of the three foundational subjects (examples: Marine Biology, Agricultural Biology)
  - Last two years of three-year sequence in Integrated Science

# D. Laboratory Science

- Additional courses may be drawn from a fourth category.
  - Advanced courses in any scientific subject area that build upon and specify as prerequisite one or more of the three foundational courses
  - Courses must offer substantial new material.
- Lower-level science courses (i.e., without science prerequisites) that do not address a majority of concepts expected in biology, chemistry or physics, may be approved as “g.” **These may serve as prerequisites for honors courses in the “d” subject area.**
  - Examples: environmental science, physical science, earth science, and Integrated Science 1

# D. Laboratory Science

## ■ Certification Criteria

- Specify, at a minimum, elementary algebra as a prerequisite or co-requisite.

## ■ Lab Work Required:

- Include hands-on scientific activities (labs) that involve inquiry, observation, analysis and write-up.
- Labs should account for at least 20% of class time and should be itemized and detailed in the course description.

# E. LOTE

- Acceptable languages: modern, classical, ASL
- Fourth- and fifth-year courses should involve increasingly challenging reading of literature. They may also carry honors weight without the required non-honors equivalent.
- Middle school courses may be used to fulfill requirement.
- Native-speakers courses are acceptable – schools should designate level.

# F. Visual & Performing Arts

## ■ Course Content:

- Must address all five component strands of the state VPA standards. Standards can be accessed at
  - [www.cde.ca.gov/be/st/ss/index.asp](http://www.cde.ca.gov/be/st/ss/index.asp)
- Must include work outside of the classroom
- Career-technical arts courses must focus on art content to be acceptable.
  - For example: Design courses (such as video production, architectural or graphic design, animation) must focus on elements of art and principles of design.
- New “Design Course Resources” available on “a-g” Guide website



# G. College-Prep Elective

- Courses expected to be at advanced level with appropriate prerequisites in “a-f” subject areas:
  - e.g., Calculus, Spanish 3, Dance 4
  - Exceptions: Science (e.g., Earth Science)
- OR**
- Courses designed for 11th and 12th grades with/without prerequisites, but can give an introduction to a college major or provide in-depth experience in new areas of academic disciplines:
  - e.g., Psychology, Sociology, Engineering, Computer Science