Top 25 Questions Facing Science Over the Next 25 Years

What Is the Universe Made Of?
What is the Biological Basis of Consciousness?
Why Do Humans Have So Few Genes?
To What Extent Are Genetic Variation and Personal Health Linked?
Can the Laws of Physics Be Unified?
How Much Can Human Life Span Be Extended?
What Controls Organ Regeneration?
How Can a Skin Cell Become a Nerve Cell?
How Does a Single Somatic Cell Become a Whole Plant?
How Does Earth’s Interior Work?
Are We Alone in the Universe?
How and Where Did Life on Earth Arise?
What Determines Species Diversity?
What Genetic Changes Made Us Uniquely Human?
How Are Memories Stored and Retrieved?
How Did Cooperative Behavior Evolve?
How Will Big Pictures Emerge from a Sea of Biological Data?
How Far Can We Push Chemical Self-Assembly?
What Are the Limits of Conventional Computing?
Can We Selectively Shut Off Immune Responses?
Do Deeper Principles Underlie Quantum Uncertainty and Nonlocality?
Is an Effective HIV Vaccine Feasible?
How Hot Will the Greenhouse World Be?
What Can Replace Cheap Oil – and When?
Will Malthus Continue to Be Wrong?

YOUR “TO DO” LIST
★ Attend a Single Subject Credential Program overview.
★ See http://ed.fullerton.edu/adtep/EDSCoverviews.htm.
★ Apply to the university at www.csumentor.edu.
★ Identify the following objective:
★ Apply to the Single Subject Credential Program at http://ed.fullerton.edu/adtep/.
★ Deadlines: February 28 for Fall semester entrance and September 30 for Spring semester entrance.
★ Demonstrate basic skills by passing the CBEST.
★ See www.cbest.nesinc.com.
★ Demonstrate subject matter competency by passing the appropriate California Subject Examination (CSET) subtests.
★ Complete required prerequisite coursework.
★ Get ready for a life-changing experience!

SHOW ME THE MONEY!
★ Starting salaries for teachers can range up to $50,000 and include excellent benefit and retirement packages! A 20-year veteran teacher may make up to $90,000.
★ Got loans? If not, get some! The Assumption Program of Loans for Education (APLE) assumes up to $19,000 in outstanding educational loan balances in return for four consecutive years of teaching science.
★ See more at: http://aple.csusuccess.org/scholarship.
★ Science teachers may earn their credential while fully employed in the public schools.
★ See ed.fullerton.edu/SecEd/Professional_Track_Program/Index.htm.

BE A SCIENCE TEACHER
PREPARE THE MINDS
THAT DISCOVER THE ANSWERS

See the Top 125 Questions of the 21st Century in Science
www.sciencemag.org/sciext/125th/
To earn a secondary science teaching credential, candidates must ★ demonstrate subject matter competency and ★ complete a program of professional preparation.

The California Commission on Teacher Credentialing authorizes eight different science credentials for teaching in grades 7-12.

Each credential requires demonstration of subject matter competence through completion of specific undergraduate or graduate degrees OR successful passage of several subtests of the California Science Examination for Teachers (CSET) in Science.

Candidates with a regular credential in a science area are authorized to teach in their specific discipline as well as general and integrated science, including middle school science.

Candidates with a Specialized credential in a science area are authorized to teach only in their specific discipline.

The most common route to subject matter competency is a major in a specific discipline and passage of the appropriate CSETs.

The demand for science teachers in California is so great that they often have their choice of district and school site.

### CREDENTIALS AND CSET SUBTESTS

#### BIOLOGY
- **Biological Sciences (Specialized)**
  - #120 Subtest III Concentration Biology
  - #124 Subtest IV Specialization Biology
- **Biological Sciences (Regular)**
  - #118 Subtest I General Science
  - #119 Subtest II General Science
  - #120 Subtest III Concentration Biology

#### CHEMISTRY
- **Chemistry (Specialized)**
  - #121 Subtest III Concentration Chemistry
  - #125 Subtest IV Specialization Chemistry
- **Chemistry (Regular)**
  - #118 Subtest I General Science
  - #119 Subtest II General Science
  - #121 Subtest III Concentration Chemistry

#### GEOSCIENCES
- **Geosciences (Specialized)**
  - #122 Subtest III Concentration Earth and Planetary Science
  - #126 Subtest IV Specialization Earth and Planetary Science
- **Geosciences (Regular)**
  - #118 Subtest I General Science
  - #119 Subtest II General Science
  - #122 Subtest III Concentration Earth and Planetary Science

#### PHYSICS
- **Physics (Specialized)**
  - #123 Subtest III Concentration Physics
  - #127 Subtest IV Specialization Physics
- **Physics (Regular)**
  - #118 Subtest I General Science
  - #119 Subtest II General Science
  - #123 Subtest III Concentration Physics

**Center for Careers in Teaching**
(www.fullerton.edu/cct/)

**Science Education Program**
(ed.fullerton.edu/SecEd/Credential_Prog)

**Science Education Office** (714-278-2703)

**Science Education Program Director**
Dr. Vikki Costa (vcosta@fullerton.edu)