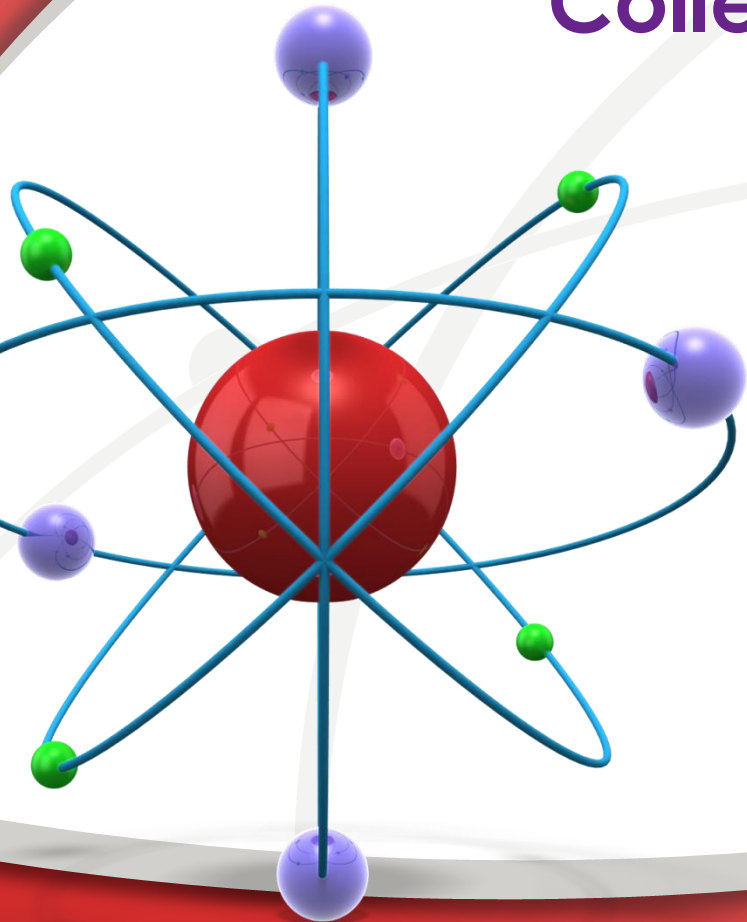
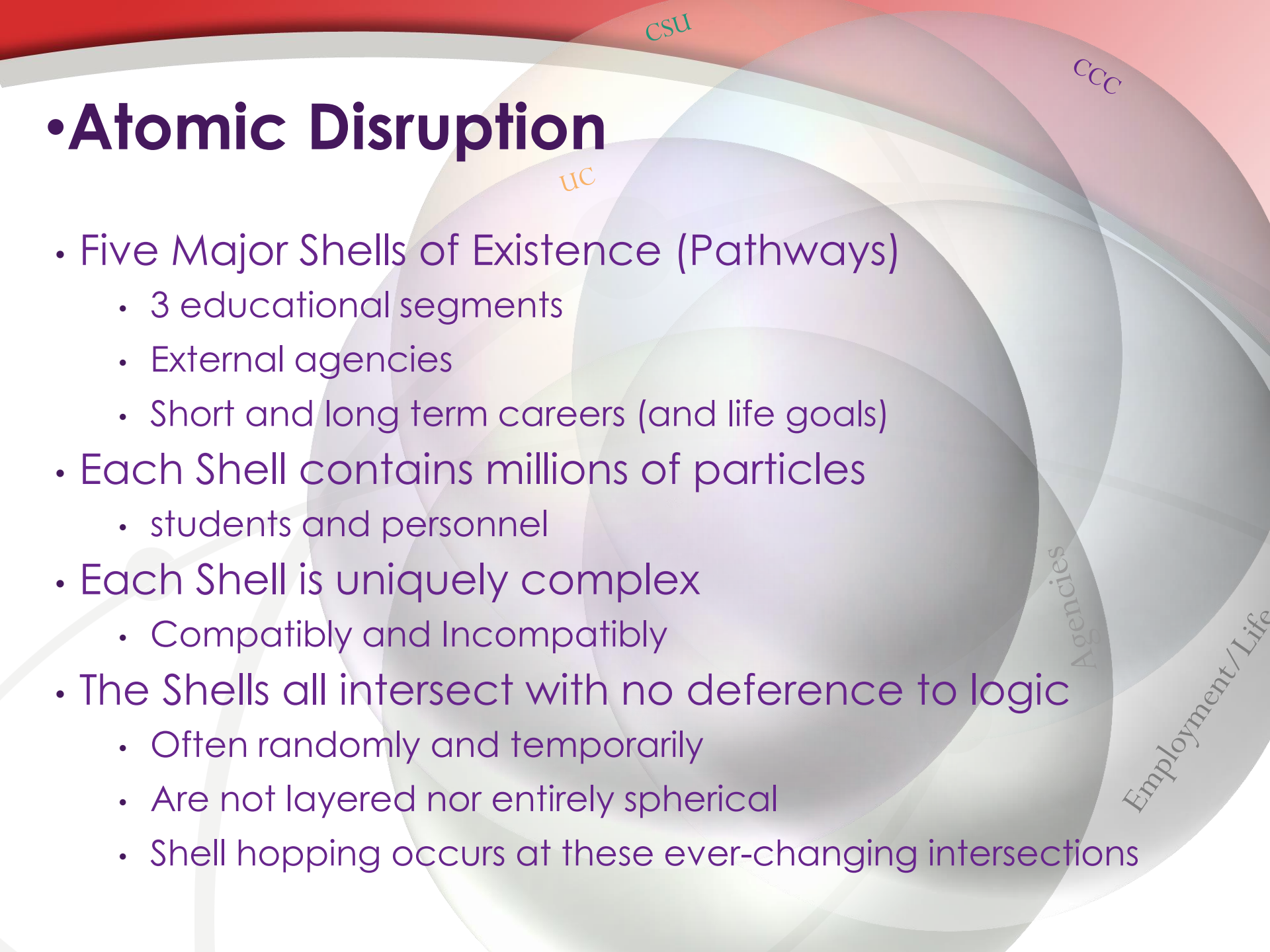


# Model Curriculum Certificates and AS Degrees College and Career Readiness



Phil Smith - Wheeler North

# •Atomic Disruption

- Five Major Shells of Existence (Pathways)
    - 3 educational segments
    - External agencies
    - Short and long term careers (and life goals)
  - Each Shell contains millions of particles
    - students and personnel
  - Each Shell is uniquely complex
    - Compatibly and Incompatibly
  - The Shells all intersect with no deference to logic
    - Often randomly and temporarily
    - Are not layered nor entirely spherical
    - Shell hopping occurs at these ever-changing intersections
- 

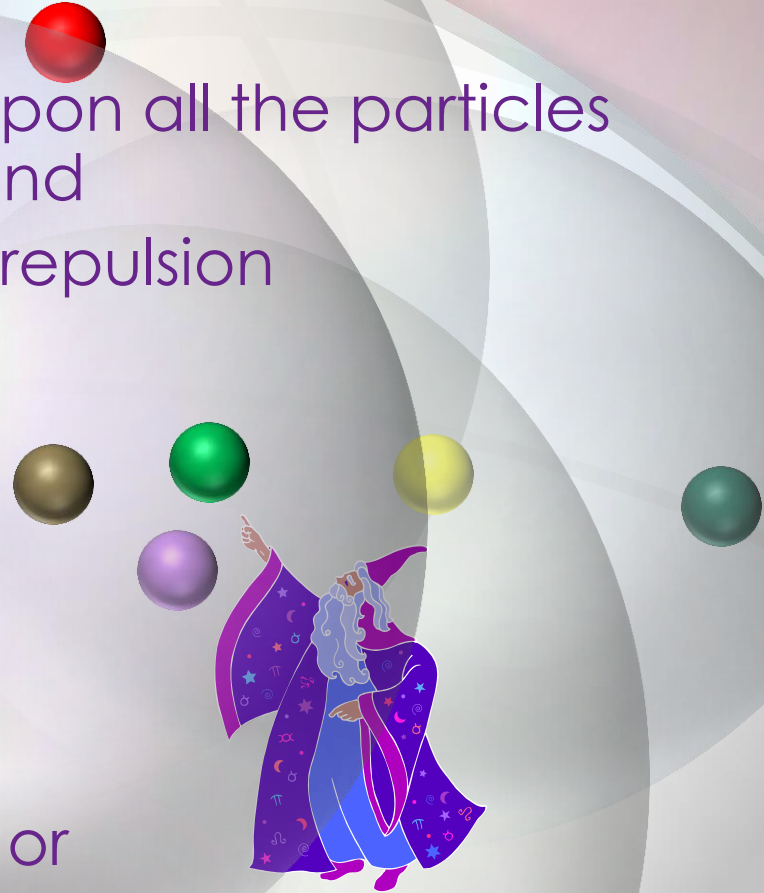
# •Atomic Disruption

- A nucleus of elements exists attempting to impose coordinated behavior
  - SCANS, 2+2+2, ASSIST, CAN/LDTP, IGETC, Career Ladders
  - C-ID, TMCs, SCP Articulation
- A course is the commonly accepted basic unit of energy
- Particle “energy“ accumulation is often incoherent – leading to bizarre patterns of shell hopping as the norm and ill defined results



# •Atomic Disruption

- Two omnipotent magicians act upon all the particles with no apparent end goals in mind
- They exert forces of attraction or repulsion
  - Effects all particles
  - Effects all shells
  - Effects nucleus
- These are called:
  - Congress
  - Legislature
- They can make any part appear or disappear, slowly or instantly





# • Atomic Disruption

## • A Typical Pathway through the Atomic Dysfunction

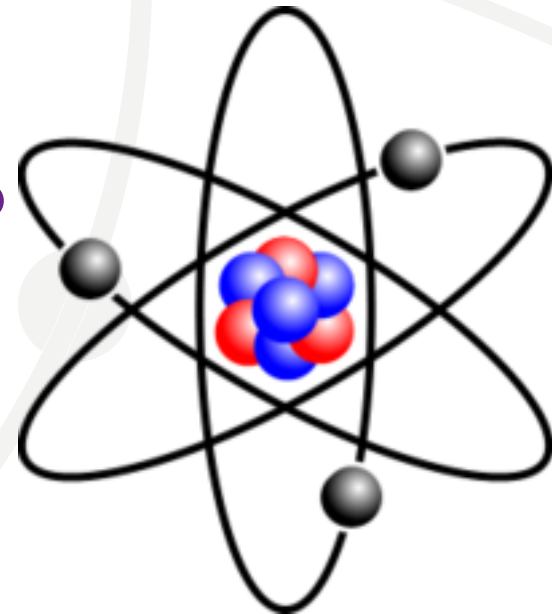


# Meet the Atomic Particles...

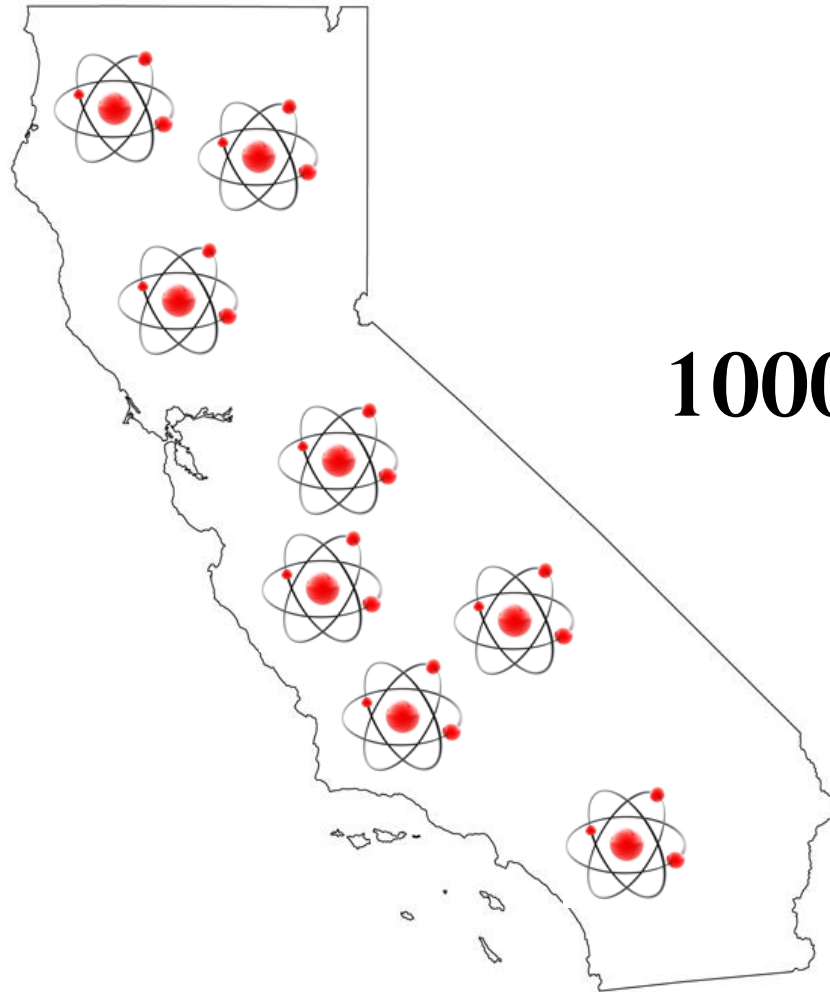
High School Career Technical Education (CTE) Programs

Regional Occupational Programs (ROP)

- Tuition-free career preparation preparation for students 15 years or older
- Programs include automotive, construction, office computer skills, information technology (database, Web authoring, network administration, computer repair), health occupations (nurse assistant, dental assistant, EMT, etc.), retail sales, careers with children and others.



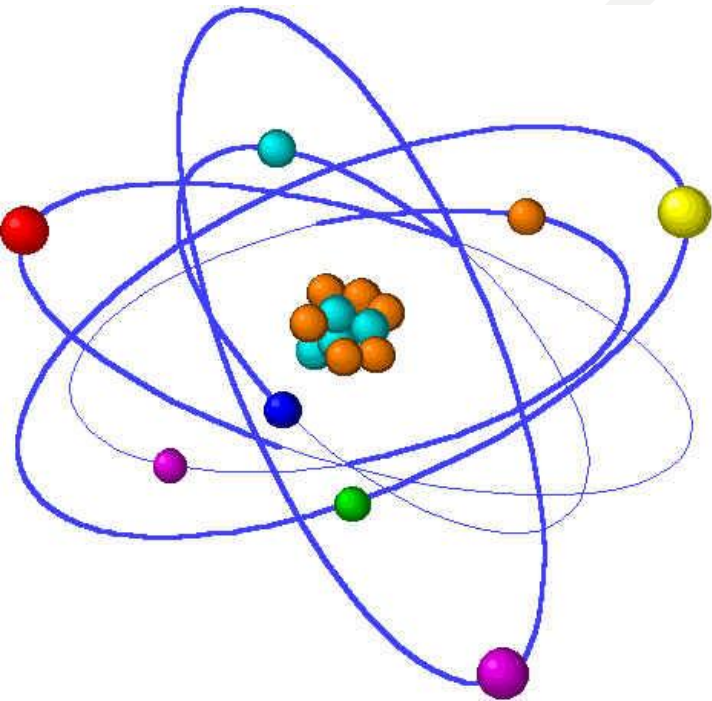
# High School CTE and ROP



**1000s!**

# Meet the Atomic Particles...

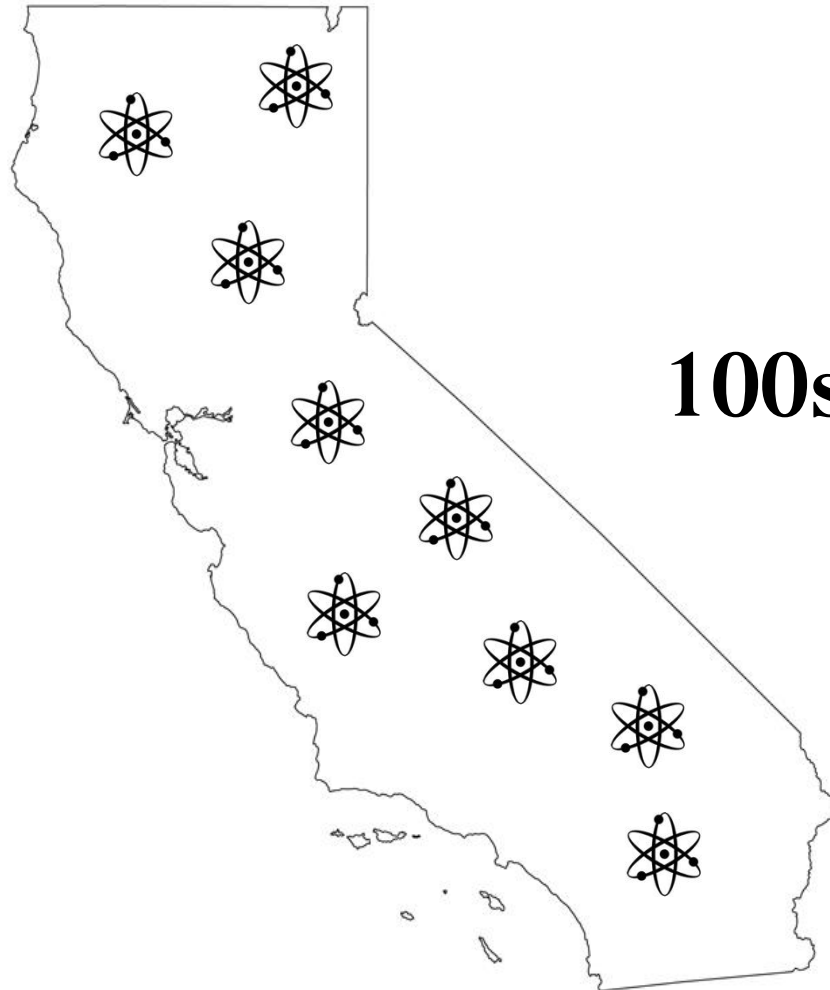
## Career Technical Education (CTE) Programs @ California Community Colleges



- **Post-Secondary Career Preparation**
- **Degrees**
- **Certificates (> 18 units; 12-18 units)**
- **Low-Unit Certificates (< 12 units)**
- **Individual Courses**
- **Adult Education (Noncredit)**



# Community College CTE Programs

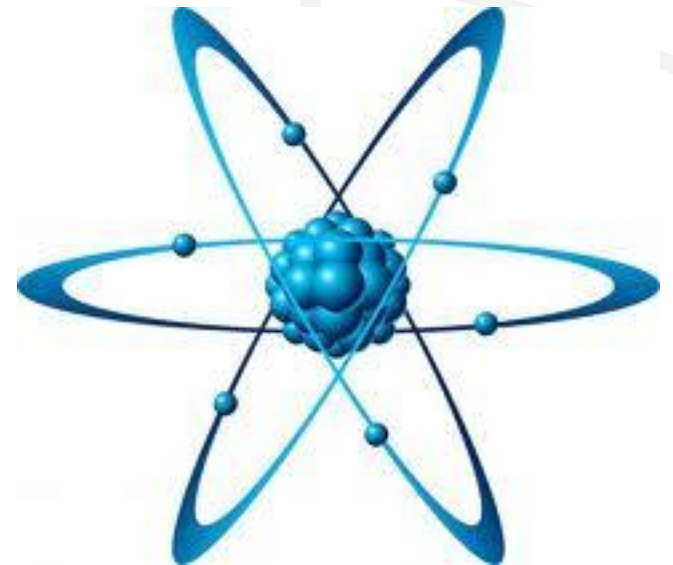


**100s!**

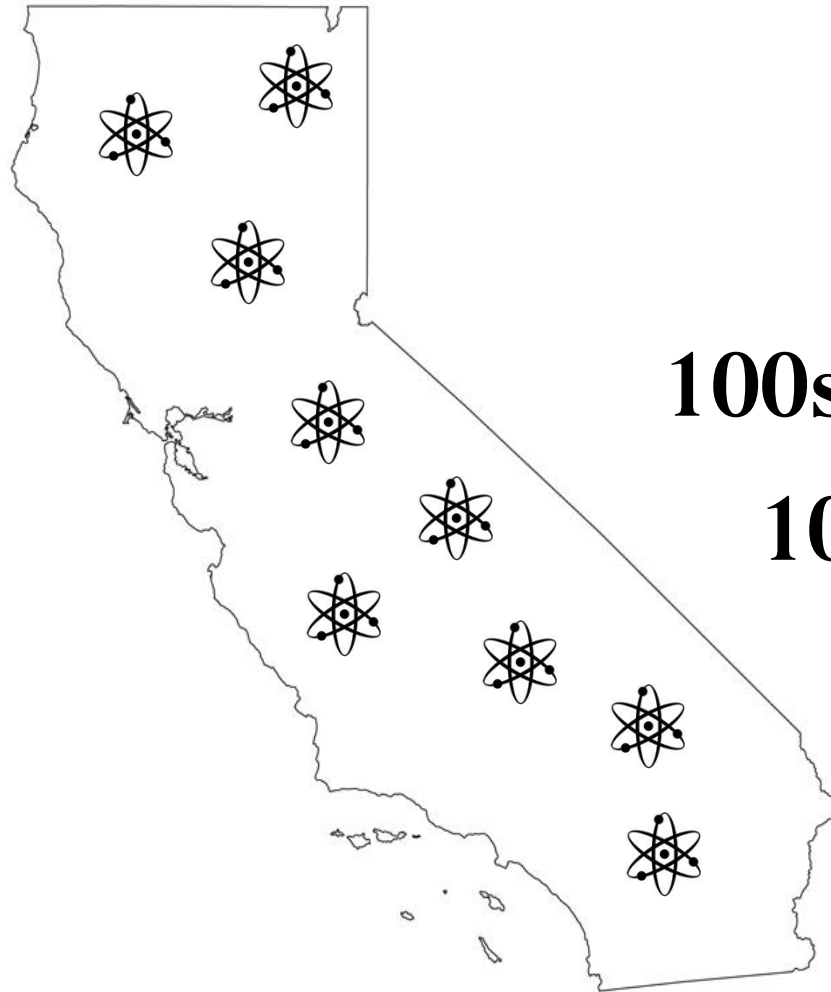
# Meet the Atomic Particles...

## Four-Year College and University Vocational Programs

- Specialized training in a Vocational Program (e.g., Nursing)
- Science, Technology, Engineering, and Math (STEM) fields (e.g., Robotics)



# College/University Vocational Programs

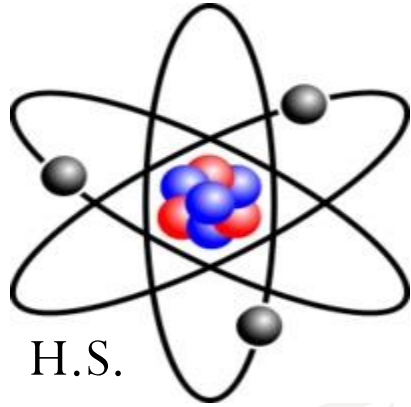


**100s?!**

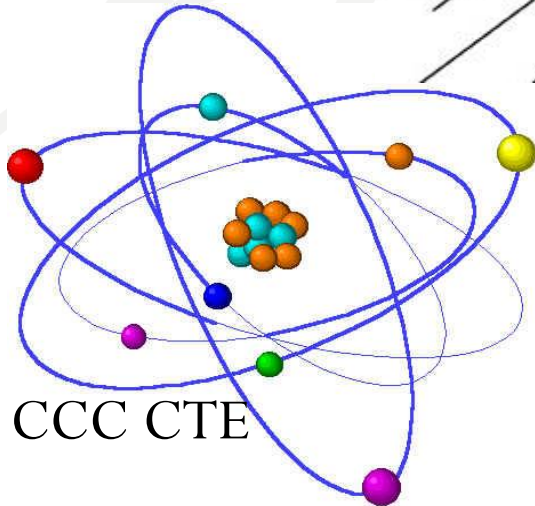
**10s!**

# How it Currently Works

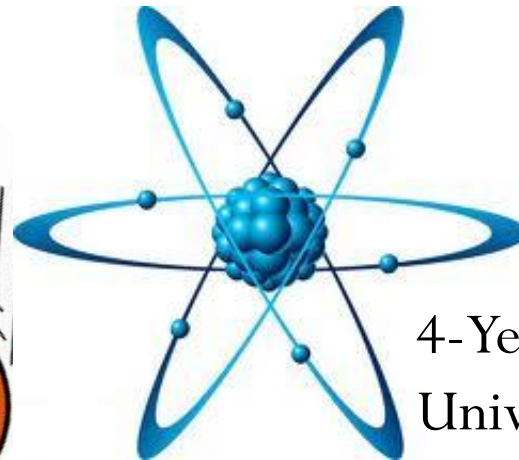
Jobs/Career



H.S.



CCC CTE



4-Year Colleges & Universities



# • Atomic Tranquility



• How we would like it to work



# •Newton's Other Forces at Work

- Governor, Legislature and Congress and others incessantly want to fix the pathway system
- Efficiency, Efficiency, Efficiency; Oh and accountability
- 4 years of less than zero resources leading to an unknown number of pathways being compromised
  - Programs being discontinued and reduced drastically and unpredictably
  - Costs and fees adding barriers
  - Extreme competition for resources impacting collaboration
- Complexity increasing with research capacity often adding to complexity versus providing clarification
- Human growth = changing direction and direction changing is happening faster and faster

# Some Efforts at “Atomic Bonding” (Cooperation)

## COURSE-TO-COURSE ARTICULATION

### *Pros:*

- Courses are easily understood across educational segments and employers.
- Relatively easy to compare courses to determine equivalence.
- Agreements to accept credit are easily understood by all the parties involved.

# Some Efforts at “Atomic Bonding” (Cooperation)

## COURSE-TO-COURSE ARTICULATION

### **Cons:**

- Articulation agreements may be challenging to negotiate (e.g., differences in professional opinion, territoriality, elitism)
- Requires energy to set up meetings, reach and maintain agreements
- Many-to-Many Articulation = Lots of Agreements to be Made and Maintained

# Some Efforts at “Atomic Bonding” (Cooperation)

## COURSE-TO-COURSE ARTICULATION EFFORTS

- **Local Agreements** — agreements kept locally
- **Statewide Career Pathways (SCP) Articulation** — centralized repository for HS to CCC course articulation agreements in the CTE subjects based on templates
- **ASSIST (Articulation System Stimulating Interinstitutional Student Transfer)** — centralized repository for CCC to CSU/UC course articulation agreements

# Some Efforts at “Atomic Bonding” (Cooperation)

## COURSE-TO-COURSE DESCRIPTOR ARTICULATION EFFORTS

- **Course Articulation Number (CAN)** — ended mid-2000s
- **Transfer CSU (TCSU)** — mid-2000s to 2010
- **Course Identification (C-ID) Numbering System** — 2008 to present

**C-ID ACCT 110** = Cabrillo College ACCT 1A = Grossmont College  
BUS 120 = Sacramento City College ACCT 301 = Merced College  
ACTG 4A



# Some Efforts at “Atomic Bonding” (Cooperation)

## MILLENNIUM OF ARTICULATION EFFORTS

- *Secretary’s Commission on Achieving Necessary Skills (SCANS) Skills and Competencies*
- *2 + 2 + 2 Articulation Agreements*
- **ASSIST** — includes some program articulation information as well as course articulation
- **CSU General Education Breadth and Intersegmental General Education Transfer Curriculum (IGETC)**

# Some Efforts at “Atomic Bonding” (Cooperation)

**Wait, there’s a....**



**Transfer Model Curricula**

# Some Efforts at “Atomic Bonding” (Cooperation)

## TRANSFER MODEL CURRICULA

- Response to SB 1440 Legislation:  
CCCs SHALL have transfer degrees and  
CSUs SHALL honor them
- Joint CCC/CSU effort to develop model curricula
- Special Benefits/Guarantees  
Upon Transfer to CSU
- CCC 60 Units; CSU 60 Units



# Some Efforts at “Atomic Bonding” (Cooperation)

## TRANSFER MODEL CURRICULA

- 20+ Most Common Majors First
- Transfer CTE Majors: Administration of Justice, Business Administration, Early Childhood Education, Radio/TV/Film, Graphic Arts, Health Science, Hospitality Management, Nutrition, Social Work
- But what about transfer majors that don't qualify, or terminal pathways intended for the workforce?

# Some Efforts at “Atomic Bonding” (Cooperation)

## Introducing...



## Model Curricula



# Some Efforts at “Atomic Bonding” (Cooperation)

## MODEL CURRICULA

- Voluntary: faculty coming together about common curricular pathways when it makes sense
- Will increase portability and laddering (atom hopping)
- Can be used regionally or statewide for certificates and terminal degrees (energy regionalization)
- Can be used for large transfer majors in excess of 120 units (e.g. Nursing, Engineering)

# • Reality in Physics – Atom Hopping

- Students Swirl – in education, employment and culturally
  - Life deals cards at random
  - Technology radically increases capacity to swirl
  - Multi-sources of media and exchange increase capacity for and expectation to engage on parallel continuums
- Laddering – Stepping into an out of education and employment in a life long pathway
  - Very common, particularly among CCC students
- Portability – Experiences and credentials gained through one means for one goal can be used elsewhere
  - If coherent can increase pathway efficiency

# •Energy Regionalization

- Legislative and System level conversations turning to the notion of pathway (program) delivery across multiple institutions within a region
- Factors to be addressed include:
  - Common course identification
  - Common pathway mapping and course scheduling
  - Processes for approval, and accreditation
  - Common student tracking and transcript portability
  - Shared facilities and equipment
  - Policies to ensure pathway commitment
  - Industry participation

# • Defining New Subatomic Particles

## • Common Core State Standards

- Assessment - College and Career Readiness
- CCSS – National project to raise the bar in K12
- Common core standards and assessment standards already set and in implementation
- Career readiness not yet established – many questions

## • CTE standards

- Ca. Dept. of Education CTE Standards – similar to SCANS
- Updated in 2012 – may factor into career readiness equation

# • Vision of a Macro Framework $E=MC^2$

- Most recognize a course as the basic building block of any academic or training pathway
- A credentialed pathway means some coherent grouping of courses that ensure acquisition of required competencies pre-established as the goal of the credential
- There is no macro framework that authenticates comparability between courses and pathways across all segments and missions
- C-ID >>> courses and Model Curricula >>> pathways - provides the data elements and pathway framework for this macro vision
- Process for development and approval provides participation and authenticity through peer review



# •Newton's Laws Re-envisioned

- Traditional pathway model calls for increased specialization at each level
- Traditional pathway aims at targeted building blocks based upon expected specialization
- Average US Citizen will have 7 to 9 careers
- Non-traditional pathway design expects deviation and common laddering
- Non-traditional pathway credentials mean broad preparation coupled to maximizing specialization options
  - E.G. High school graduate from transportation sector Program of Study is prepared to enter any one of 35 regional CCC CTE programs, or enter into the workforce at apprenticeship level.

# •Atomic Bonding – Forming Compound Partnerships

- Processes for developing and authenticating model curricula should include sector partners (industry and agency)
- C-ID courses and model curricula have implications for contract education
  - Portability and approval of credit and not-for-credit contract education could be enhanced with C-ID framework
- Curriculum flexibility and approval processes improved and streamlined based upon local process choices (locally controlled)
- Assessment and evaluation standards alignment based on common curriculum (locally controlled)

# •Closing Space-Time Continuum Loop

- Current data collection based upon compliance and apportionment requirements
  - Provides no means to account for pathway proficiency or viability (can students complete and do students actually use intended pathways)
  - Provides limited mechanisms to measure pathway effectiveness beyond any single segment
  - Pathway flexibility limited by inadequate provision of information to student advisement efforts (counselors can't advise on what they don't know)
- Atomic functional framework provides data elements and crosswalks to close many research loops



•**Thank you**

• Questions?