

Colleagues,

As you know, I have long been troubled by the idea that “life/work experience” is a suitable equivalent substitute for meeting the State-mandated minimum qualifications for CTE positions.

The CTE Minimum Qualifications Toolkit David forward us exemplifies the problem with granting equivalency based on work/life experience in a painfully clear way. However, it also offers what I think is a credible solution to our hiring problem in CTE. I think if we look closely at the toolkit we can both see and move beyond the problem.

I am starting with the CTE Toolkit, beginning on page 38 which deals with the Area A, Natural Sciences requirement for an AA/AS degree. It will be helpful if you have the toolkit open to this section as you follow my examination of the toolkit recommendations. The courses I choose to use to compare what the toolkit suggests are equivalencies are courses from other community colleges as well as from COS. Whenever possible I use non-majors courses, and try to use the same identifying course numbers as the toolkit uses.

Area A

The section begins with a very general statement of the purpose of including one course from the Area A list. It may be tempting to rely exclusively on that general statement of purpose in determining whether a candidate meets equivalency for one of the courses, but its very general nature makes it worthless (because most literate adults probably meet those general goals without much education at all). More importantly, California has decided that the general purpose statement is fulfilled BY PASSING one of those courses, not by getting the very general idea of the group of courses listed.

The list of acceptable courses is then followed by examples that could be considered the equivalent of passing one of the listed courses. I'll stick with the examples that we might come up with in equivalency applications, given the CTE courses we offer.

Automotive Technician

The toolkit example of evidence of equivalency that comes closest to an actual course listed in Area A is, “A certified technician must understand

principles of fluid dynamics and hydraulics, composition of friction materials...”

That would only be covered in the Physics 105 course in the list. Below is what such a course at Glendale Community College covers:

Physics 105

Physics 105 The course covers topics in classical mechanics, thermodynamics, waves, and sound. The course takes an algebra-based approach to physics. Therefore, students must have a prior understanding of algebraic equations and trigonometric functions.

A general understanding of fluid dynamics and friction are relevant to auto mechanics, but on-the-job application of these two subjects is quite different from the ability to apply algebraic equations and trig functions to calculate friction coefficients, for example. Furthermore, what about the other topics covered by the course? Are we to conclude that the other aspects of mechanics, thermodynamics, wave characteristics, and sound are irrelevant? Being able to troubleshoot a brake master cylinder failure does not demonstrate mastery of fluid dynamics, and diagnosing and replacing a bad muffler does not demonstrate understanding of wave and sound physics.

If the ability to follow a manual’s troubleshooting instructions on one topic of a class is the equivalent of taking and passing the class, shouldn’t the same be true for students in the physics class? Shouldn’t they be able to claim mastery of the class if they successfully replace a balky master cylinder or bad muffler? Wouldn’t that also be physics class equivalency?

Barbering, Cosmetology

The toolkit example of equivalency that comes closest to an actual course in Area A is, “A licensed barber...must understand the interaction of specific chemicals with other chemicals and with human skin, hair, and nails.”

That would actually require both a general chemistry and an organic chemistry class, but for simplicity let’s just see what a general chemistry class would include as it addresses the inorganic aspects of chemistry. For this let’s look at a Chem 101 for non-science majors at Virginia Community College:

CHM 101: Introductory Chemistry

Major Topics to be Included Matter and States of matter, Measurement and Laboratory techniques, Atomic Structure and the Periodic Table, Nuclear Chemistry, Bonding, and Nomenclature Chemical Reactions including Redox Reactions and Equilibrium Solutions Acid-Bases

So a cosmetologist has to be able to read the instructions on the various solutions he/she is applying to the various parts of the body, and either use or not use the chemicals. But that is very different from understanding atomic structure, the various kinds of chemical bonding, how this can be predicted by using the periodic table, and understanding not just how, but why buffers work to resist pH changes in acid/base solutions.

Again, if following a hair color chart and deciding which pre-mixed solution to put on a customer's hair without melting the scalp is the equivalent of passing a non-majors Chemistry class, shouldn't we be passing chemistry students in our classes who successfully color their own hair? Equivalency is an equation that works forward and backward. Each side of the = sign is equal to the other side.

Area B

Again, let's use the professions that might come before the committee seeking equivalency.

Automotive Technician

The toolkit example of equivalency that comes closest to an actual course in Area B is, "Technicians must utilize knowledge of social groups to interact constructively, communicate effectively, and to manage customer and internal relations."

That would be covered in our Soc 001:

Soc 001 Introduction to Sociology

An introductory study of the basic concepts, theoretical approaches, and methods of sociology. Topics include culture and diversity, socialization and the self, the analysis and explanation of social structure, group dynamics, deviance, social stratification, class, race/ethnicity, gender, the family, social change, and global dynamics.

So, a technician has to...recognize he is dealing with Hispanics, Asian-Americans, Blacks, Whites, and Native Americans? And then communicate with them constructively for the benefit of the company. And that is the equivalent of passing Soc 001?

By now you are getting the problem. None of this addresses methods or forces of socialization, nor does it analyze or explain social structure. It doesn't deal with or require an application of the understanding of group dynamics, nor does it deal with the topics of deviance, social stratification, social change, or global dynamics.

If we say that a technician dealing over the counter with customers of various ethnic/class backgrounds has done the same thing as passing Soc 001, we may as well recognize we will have to pass our Soc 001 students who deal with different ethnicities on the bus or at the market. Both sides of the equal side are equal.

Barbering, Cosmetology

The toolkit example of equivalency that comes closest to an actual course in Area B is, "Licensed barbers, cosmetologists, and estheticians must apply an understanding of diverse cultures to interact with and appropriately meet the hair, skin, and nail needs of a diverse clientele."

That would probably be covered in Palomar College's Anthropology 105 Introduction to Cultural Anthropology:

Anthropology 105 Introduction to Cultural Anthropology

An introduction to the study of concepts, theories, and methods used in the comparative study of sociocultural systems. The course typically includes subjects such as subsistence patterns, social and political organization, language and communication, family and kinship, religion, the arts, social inequality, ethnicity, gender, culture change and the application of anthropological perspectives to contemporary issues.

So, a cosmetologist needs to know who wears an Afro in a culturally appropriate style, and know what skin treatments are preferred by various

ethnicities, and what nail colors and decals to suggest for various customers based on...their ethnicity?

And this shows an understanding of Anthropologic methodology? It shows an understanding of the relevant subsistence patterns, the various social and political organizations of current ethnic customers? And it applies anthropological perspectives to contemporary issues?

Marla Prochnow will be distressed to know she will have to pass any of her students who successfully braid cornrows on the appropriate ethnic customers.

Conclusion

I think you get my point. Virtually any claim that life or work experience is the equivalent of any of the requirements for an Associate degree is implausible. The State has tasked us with deciding when unusual approaches to meeting the strict Minimum Qualifications for teaching at the Community College level are legitimate. All of the classes that are part of the area requirements are broad exposures to specific academic domains of knowledge. The idea behind the courses is that students need to have a broader experience of the world than they can ever get on the street or in the normal routines of life. If life experience was sufficient, colleges and universities would pass students through academic classes for work/life experience.

When we grant equivalency, we are saying the applicant is equal, not nearly equal. And we better not be saying that equality doesn't matter. If we are not willing to pass students through our courses with only the slenderest mastery of a concept or two, we can't say applicants for equivalency are equal when they show familiarity with only one or two topics from a course.

Proposal To Address the Practical CTE Problem

So, what are we to do about CTE job openings that still have the minimum qualification of an AA/AS degree when so few applicants meet that requirement?

I think the toolkit actually addresses this constructively, starting on page 61 where it suggests candidates consider testing to meet the requirements for academic minimum quals by passing comprehensive course final exams.

More realistically, I suggest we consider the CTE faculty internship program that is covered on pg. 63 and following. I suggest that our discussion would be most profitable if we focus on structuring an internship program for CTE which would allow the interns time to finish the AA degree, which is not really very difficult. That is where I think we should devote our discussion time.