



# CURRICULUM ALIGNMENT Fall 2013 Report



CENTRAL FLORIDA  
DISTRICT SCHOOLS

## *PURPOSEFUL PATHWAYS*

*Presented by:*

## UCF Regional Campuses

CENTRAL FLORIDA REGIONAL  
CURRICULUM ALIGNMENT CONFERENCE

FRIDAY, NOVEMBER 1, 2013

VALENCIA COLLEGE, OSCEOLA CAMPUS



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The Curriculum Alignment Conference, **Purposeful Pathways**, was held November 1, 2013, at the Valencia College, Osceola Campus. The conference followed a series of academic discipline meetings in Biology, Chemistry, Physics, Math and Engineering held from April to October.

**Angé Peterson** opened the meeting, followed by a welcome from **Jeff Jones**, Vice Provost, UCF Regional Campuses and Continuing Education who welcomed everyone and thanked the participants for continuing the important work of aligning curriculum between Central Florida School districts, college partners and UCF.

**Mike Hampton**, chair of Curriculum Alignment initiative, provided a summary of fall activities and a brief perspective on the status of curriculum alignment and the new initiative of blending advising into alignment to strengthen student pathways in the sciences.

**David Yaron**, Professor at Carnegie Mellon, introduced a supplemental learning collection of virtual labs, scenario-based learning activities and concept tests for teachers to use in pre-labs, textbook homework, and in-class activities. The students can review and learn chemistry concepts using the same virtual labs, simulations and tutorials. This is an online solution for both instructors and students. This resource to teach and learn chemistry was created by the faculty at Carnegie Mellon and is licensed as *ChemCollective*. Click on the following link to read the entire presentation:

<http://tinyurl.com/plvcjll>

**Mark A. Poisel**, Vice President of Georgia Regents University, addressed the audience with a special session: *Creating Purposeful Pathways: Aligning Advisement to Curriculum*. The presentation centered on students imagining sciences as a key to success and how proactive advising can support students' dreams while embracing the realities. Click on the following link to read the entire presentation:

<http://tinyurl.com/mrlorrx>

**Pam Cavanaugh**, Assistant Vice Provost, UCF Regional Campuses, provided a brief synopsis on proactively aligning the student academic progress titled *Developing Robust Pathways*. Click on the following link to read the entire presentation:

<http://tinyurl.com/ntk5pdy>

**Teresa Dorman**, Associate Dean, College of Sciences, provided an update on the *UCFiSTEM* on behalf of Melissa Dagley, Executive Director of *iSTEM* at UCF. The presentation included an overview of the various STEM initiatives underway at the university. Click on the following link to read the entire presentation:

<http://tinyurl.com/mbm5jhk>



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In the afternoon, Working Group members met within their respective disciplines to answer two questions. Following the breakout session, each group reported their findings, which will be address when they meet during the spring term in 2014.

**Question 1**

How can the integration of advising impact and support curriculum alignment? For example . . . Utilize best practices, identify gaps in information, how to best address changes in curriculum to advisors and advisors at the partner colleges, create learning support for student’s pathways, getting everyone on the same page.

<b>Math</b>
Advisors need to be able to explain to students why they need the math courses they need and how they relate to their majors. This includes explaining topics covered in the course and differences between courses with similar names.
Advisors can identify key courses in majors in which math is needed.
Use of common end of subject exams used across the state for a common course could help advisors.
Create a study plan for students and monitor progress periodically.

<b>Chemistry</b>
Students wanting to take Organic 1 & 2, Physics 1 & 2 and Calculus 1 <u>CAN</u> take these courses at a State College <u>AND WILL</u> transfer as core credits not elective credit. (Premed Advising issue) because of this, we need to ensure communication is uniform, clear, concise, and accurate.
Communicate and lessen the gap of information of advising from K-12 educators/counselors to college advisors to post-graduate advising. (This can be done through electronic communication, forums, during college visits, school visits, college fairs, etc.)
Students registering for condensed, hybrid, and online courses during summer, there should be a cap (9-12?) or a red flag where students must seek the advisement of their advisor. (Especially for math and science simultaneously - Could this be placed in the enrollment catalog- document used?)
Promoting/encouraging students to see their academic advisor (creating and using peer advisors to see academic advisors).

<b>Physics</b>
Ensure students know what courses to take for a major.
Advisors should have awareness of concepts and topics within courses.
Need to understand rigor of the course (time and effort from day 1).
Sometimes basis of advising is opinion rather than a determined course of study.
Content expert advisement.
Advisors should stay up to date (professional responsibility).
Shared software for all college advising (e.g. DARS).
Push rigorous classes sooner for the degree rather than too much on GEP.



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<b>Biology</b>
Centralized occupational alignment website (e.g. BLS.gov), clearinghouse; links to Blogs, etc.
The “whys” behind a program structure should be explained.
Help advisors understand specific course material better.
Include advisors in discussions regarding curriculum changes.
Provide time, budget, and opportunities for outreach programs

**Question 2**

How can Curriculum Alignment provide and support school districts in both teaching (instruction) and learning to generate more students imagining science or math as their keys to the future? For example . . . Students: Transformational learning, innovative competitions, science fairs, science boot camps, ChemCollectives in Central Florida. Instructors: Transforming teaching professional development, supportive methods and tools, instruction toolbox for disciplines, summer institutes, additional teacher prep.

<b>Math</b>
Create a program in which junior and senior college students explain the importance of math and science courses.
Create programs in which state colleges and universities host sessions for career and major course of study exploration (sessions should be within close proximity of middle and high schools).
Create homework support in math for middle and high school parents and students.

<b>Chemistry</b>
Inform - High School educators/counselors of the alignment programs for the various areas.
Toolbox - A college entrance exam with expectations of what students need to know coming in (exit exam for high school chemistry/chem H) and Practical application problems
Professional Development: <ul style="list-style-type: none"> <li>• Highlighting a specified topic (misunderstood/miscommunicated);</li> <li>• Highlighting various labs/lab safety/lab expectations;</li> <li>• A forum for questions, where professors can answer questions chemistry teachers have.</li> </ul>
Promote - field trip, speakers, peer mentors college students with high school/middle school students, etc. (possibly through grant funding), You Teach
STEM - Field Trips (including busing) - expo highlighting various sciences/math/topics that are underrepresented, which are hands on



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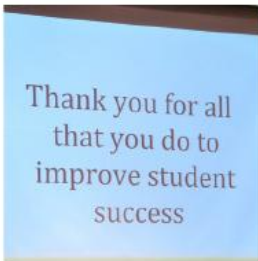
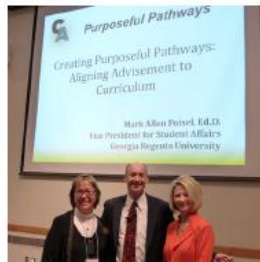
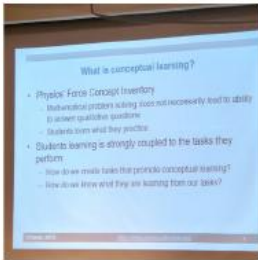
<b>Physics</b>
“Adopt a Physics Teacher” (email principals for teachers at beginning of the year, invite to a ceremony.)
Science Olympiad
Teacher retention
Free/reduced costs summer camps
Campus visits
Sending college students in to teach/lead labs (make this part of the curriculum for graduation).
UCF students go to the state colleges
Peer tutoring
Rapid professional networking for new teachers.
Partner with Orlando Science Center.
Teaching exchange

<b>Biology</b>
College nights on campuses, invite students and parents.
Mentoring, blogging, etc.
Have high school students attend college activities.
Summer camps, programs and professional development opportunities.
Student internship opportunities.

Mike Hampton closed the *Purposeful Pathways* Fall 2013 Curriculum Alignment Conference by stating it was highly productive and thanked everyone for taking time to attend and participate. He added that Math, Chemistry, Physics, Biology, and most recently Engineering, will be very busy in 2014 as they continue to alignment curriculum between Central Florida School Districts, partner colleges and UCF. Mike said student success would be further enhanced now that advising has been integrated into the curriculum alignment initiative.



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Curriculum Alignment: Purposeful Pathways Snapshots  
November 1, 2013