











CURRICULUM ALIGNMENT 2.0 CONFERENCE 2017:

COLLABORATION FOR STUDENT SUCCESS

Friday, March 3, 2017 Valencia College, Special Events Center 9:00am – 3:00pm















WELCOME

Elizabeth A. Dooley, Ed.D., Vice Provost for Teaching and Learning and Dean, College of Undergraduate Studies, UCF

Jeff Jones Ph.D., Vice Provost, Regional Campuses, UCF















CURRICULUM MAPPING

Melody Bowdon, Ph.D.

Associate Dean, College of Undergraduate Studies and Executive Director, Faculty Center for Teaching and Learning and Faculty, UCF



Curriculum Mapping: One Key to Alignment

Melody Bowdon, PhD Associate Dean, College of Undergraduate Studies Executive Director, Faculty Center for Teaching and Learning Professor, Writing and Rhetoric



What is curriculum mapping?



Context for Curriculum Mapping





Key Considerations



Critical Elements

- Broad-based participation
- Open discussion
- Effective leadership
- Accurate information
- Capacity to make changes
- Culture of continuous improvement



Benefits of Curriculum Mapping

- Faculty communication
- Quality assurance
- Institutional effectiveness
- Value for various stakeholders: new faculty, advisory boards, external audiences
- Makes space for next-level thinking
- Helps with benchmarking, accreditation, rankings, etc.
- Help with planning for faculty hiring, use of space, interdisciplinary efforts



Curriculum Map

Course #	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7

I=Introduced E=Emphasized R=Reinforced A=Assessed



Advanced Curriculum Map

Activity	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7
			SL=Se AL=Ad	ervice-Learnir Iaptive Learni	ng		
			SI=Supple IB=I	emental Instru nquiry-Based	uction		
			SG+Sn D=Diver	nall Group Worsity Requiren	ork nent		Faculty
			W=W	riting Intensiv	e		

Advanced Curriculum Map

Activity	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5	Objective 6	Objective 7

NPC=Non-program Curricular Experience CS=Cross-Cutting Skills CC=Co-Curricular Experience CP=Career Preparation Experience



Invention Questions for Beginning the Mapping Process

- What are the current goals of the program?
 - Academic learning compacts
 - -Course catalog
 - Institutional effectiveness plans and results
- What would I learn if I enrolled in this program?
- What skills do successful graduates possess?



Invention Questions for Beginning the Mapping Process, cont'd.

- What core concepts and knowledge do successful graduates possess?
- Why would I come to this program instead of another?
- What do graduates do when they leave?
- How does this program fit into our community?
- How does this course or program fit into our articulation efforts?

What pedagogical approaches are used in the program?

- Collaborative learning
- Experiential learning (internships, CO-OP, service-learning, client-based projects)
- Inverted course design
- Online learning
- Inquiry
- Case-based
- Undergraduate research
- Study abroad
- Writing projects



What assessment strategies are used in the program?

- Innovative assessments (competition, external evaluation, portfolio, peer assessment)
- Pre and post tests
- Certification examinations
- Standardized exams
- Traditional tests
- Shared rubrics



What do we know about the competition?

- Why is each a top program?
- What do they have in common?
- What does our program have in common with others and how do we differ?
- Should we change our program to be more like those (others) that are nationally-recognized?



SLOs

Student learning outcomes or SLOs are statements that specify what students will know, be able to do or be able to demonstrate when they have completed or participated in a program/activity/course/project. Outcomes are usually expressed as knowledge, skills, behaviors, attitudes or values.



Typical format for writing a student learning outcome

- 1. Specify time period
- 2. Specify student group
- 3. write "who"
- 4. "participate in", "exhibit", "complete", etc.
- 5. Specify activity, program, course, service, etc.
- 6. write "will be able to"
- 7. Specify task (identify, list, describe, summarize, discuss, explain, etc.
- 8. Specify outcome



SMART SLOs

- Specific clear, definite terms describing the abilities, knowledge, values, attitudes and performance desired. Use action words or concrete verbs.
- Measurable Your SLO should have a measurable outcome and a target, so that you can determine when you have reached it.
- Achievable Know the outcome is something your students can accomplish
- Realistic make sure the outcome is practical in that it can be achieved in a reasonable
- time frame
- Time-bound When will the outcome be done? Identify a specific timeframe.



Bloom's Taxonomy





The map with assessments

Identify the courses where

outcome performance is measured and

data is collected for program assessment

(two measures for each SLO):

	XXX 3000	XXX 3500	XXX 4000	XXX 4500	Cap Project	
SLO 1	I.		E		R	
SLO 2	IE		R	R	R	
SLO 3		I		E	R	
SLO 4	I	E		R	R	
SLO 5		I.	E		R	Faculty Center

Follow-Up Efforts

- Implement the teaching and assessment strategies
- Monitor progress towards meeting performance targets
- Make adjustments as needed for improvement
- Review thoroughly at least annually



Continuous improvement...

- Aggregate data over time to determine if major changes are needed
- Maintain dialogue with fellow institutions and professional organizations to determine if changes are needed
- Include all program faculty (full and part-time) in discussions



Thanks to colleagues Tace Crouse, Patsy Moskal, and Hank Lewis for their collaboration on these ideas.















Student Success Project Course Sequences Data

Dr. Teresa Dorman Associate Dean, College of Sciences



Examining these data, we must acknowledge:

- Institutional Missions
- Performance Metrics
- Admissions Protocol
- Use (or not) of Placement Tests
- Environmental Differences
- Internal Curriculum Alignment (dept/inst)



The Data

Academic Years considered for this analysis are -
2011-12
2012-13
2013-14
2014-15
2015-16



- Years of Analysis
- Courses Analyzed: Requisite and Prerequisite



How successful are students in MAC2311 based on their prerequisite background?

UCF requisite course

Table 1. Summary of student background based on their most recent pre-requisite attempts

				٨B	C - Pa	_ <	MAC	2311	EW - I	Insuce	ossful		То	tal
			Α	в	C	Tot	al	D/NC	F	W	Tot	al	#	% col.
4	Prerequisite Oourse													
		Prerequisite attempted at UCF	285	612	654	1,551	55.1	566	339	360	1,265	44.9	2,816	27.9
		Prerequisite Transferred from another		200	274		246	202	270	206	1.040	65.4	4 602	45.0
	MAC1140	Institution	80	200	214	334	34.0	383	270	390	1,049	00.4	1,005	15.9
		Repeater	39	331	479	849	48.2	344	382	185	911	51.8	1,760	17.4
		Unknown/No prerequisite record found	707	1,238	919	2,864	72.9	381	422	263	1,066	27.1	3,930	38.9
		Total	1,111	2,381	2,326	5,818	57.6	1,674	1,413	1,204	4,291	42.4	10,109	100.0



Table

What more can I learn about our partner colleges?

- Of the students who completed MAC1140 at a partner college, how did they do in MAC2311?
- ... and how do they compare to the students who completed MAC1140 at UCF?



Table 6. Summary of Transfer Institutions where pre-requisite attempted by students

							MA	AC231	1				т	4-1
				AB	IC - I	Pass		DF\	N - U	Jnsu	ccessf	ul	10	JLai
			Α	В	С	Тс	otal	D/NC	F	W	Tot	al	#	% col.
Prerequisite Course	Partner													
		CFC		3	3	6	26.1	9	3	5	17	73.9	23	1.4
		DSC	4	11	12	27	21.8	26	14	18	58	68.2	85	5.3
	\mathbf{C}	EFSC	5	15	18	- 38	44.7	17	11	19	47	55.3	85	5.3
	Partner	LSSC	4	6	10	20	42.0	11	6	10	27	57.4		2.9
MAC1140		SSC	3	7	16	26	23.4	26	24	35	85	76.6	111	6.9
		VC	18	37	69	124	26.4	113	79	154	346	73.6	470	29.3
		Total	34	79	128	241	29.4	202	137	241	580	70.6	821	51.2
		Other Institution/Unknown	46	121	146	313	40.0	181	133	155	469	60.0	782	48.8
	Other Institution/Unknown	Total	46	121	146	313	40.0	181	133	155	469	60.0	782	48.8
Total			80	200	274	554	34.6	383	270	396	1,049	65.4	1,603	100.0

Background Prerequisite Transferred from another institution

Table 1. Summary of student background based on their most recent pre-requisite attempts

NAPAYEU							MAC	2311					То	t = 1
COVIE				AB	C - Pa	ss		D	FW - U	nsucc	essful		10	Lai
			Α	В	С	Tot	al	D/NC	F	W	Tot	al	#	% col .
	Prerequisite Course													
		Prerequisite attempted at UCF	285	612	654	1,55	55.1	566	339	360	1,265	44.9	2,816	27.9
		Prerequisite Transferred from another												
	MAC1140	institution	80	200	274	554	34.6	383	270	396	1,049	65.4	1,603	15.9
	MACT140	Repeater	39	331	479	849	48.2	344	382	185	911	51.8	1,760	17.4
		Unknown/No prerequisite record found	707	1,238	919	2,864	72.9	381	422	263	1, 0 66	27.1	3,930	38.9
		Total	1,111	2,381	2,326	5,818	57.6	1,674	1,413	1,204	4,291	42.4	10,109	100.0

51.2%

previously 4 & 1 Comparison: Tables 6 & 1

What does the prerequisite grade in MAC1140 tell me about performance in MAC2311?

Table 3.1. Summary of student's pre-requisite attempt at UCF

	5													
							MAG	22311					Те	+-1
				A	3C -	Pass		DF\	N-ι	Jnsu	ccessf	ul		Jtal
			Α	В	С	Tot	al	D/NC	F	W	Tot	al	#	% col.
	Prerequisite Course													
		Α	228	353	251	832	77.0	132	47	69	248	23.0	1,080	38.4
		В	44	100	272	512	47,9	257	142	158	557	52.1	1,069	38.0
		С	13	58	122	193	30.9	172	142	117	431	69.1	624	22.2
	MAC1140	D/NC		2	2	4	26.7	3	2	6	11	73.3	15	0.5
		F			5	5	35.7		4	5	9	64.3	14	0.5
		W		3	2	5	35.7	2	2	5	9	64.3	14	0.5
n	stitution	Total	285	612	654	1,551	55.1	566	339	360	1,265	44.9	2,816	100.0

Background Prerequisite attempted at UCF

Table 3.2. Summary of student's pre-requisite attempt at Transfer Institution





What is the gap in time between MAC1140 and MAC2311, and how does this affect performance in MAC2311?

Table 5.1. Summary of semester gap between student's pre-requisite attempt at UCF and the course

Background Prerequisite attempted at UCF

						MAG	02311					т	
			A	BC -	Pass		DF\	N - L	Jnsu	ccessf	ul	IC	otai
		Α	В	С	Tot	al 🛛	D/NC	F	W	Tot	al	#	% col.
Prerequisite Course													
	Immediately in Successive Semester	171	326	310	807	58.5	269	159	145	573	41.5	1,380	49.0
NOTE:	Prerequisite Attempted After Course Attempt			1	1	3.3	6	6	17	29	96.7	30	1.1
MAC1140	With a gap of 2 to 3 semesters	73	214	291	578	53.2	239	129	141	509	46.8	1,087	38.6
MACT140	With a gap of 4 to 6 semesters	25	45	34	104	47.5	38	35	42	115	52.5	219	7.8
	With a gap of more than 6 semesters	16	27	18	61	61.0	14	10	15	39	39.0	100	3.6
	Total	285	612	654	1,551	55.1	566	339	360	1,265	44.9	2,816	100.0



How many times did students attempt MAC1140 and how did they do in MAC2311?

Table 4.1. Summary of number of attempts in prerequisite course at UCF

Background Prerequisite attempted at UCF

						MA	C2311					т	
			A	BC -	Pass		DF	W -	Unsu	iccess	ful	IC	otal
		Α	В	С	Tot	tal	D/NC	F	W	То	tal	#	% col.
Prerequisite Course													
	1	273	578	615	1,466	57.4	511	280	299	1,090	42.6	2,556	90.8
	2	12	30	34	76	34.5	45	56	43	144	65.5	220	7.8
HAC1140	3		4	4	8	25.0	8	2	14	24	75.0	32	1.1
MACT140	4			1	1	25.0		1	2	3	75.0	4	0.1
	5+			-		-	2	-	2	4	100.0	4	0.1
	Total	285	612	654	1,551	55.1	566	339	360	1,265	44.9	2,816	100.0



And finally, what more can I find out about those who repeated MAC2311?

- What was the next-to-last and final grade in MAC2311?
- How many times did students repeat the course? (And how did they do?)
- Did the time between retakes affect the students' grades?



Table 7.1. Summary of student's previous attempt (for course repeaters)

Next-to-last and final grade in MAC2311

Back	gr	our	nd	Rep	eate	r						
					MAG	2311					Т	stal
	ABC - Pass DFW - Unsuccessful											
	Α	В	С	T	otal	D/NC	F	W	То	tal	#	% col.
Α	-	1		1	100.0						1	0.1
С	4	8	1	13	86.7		1	1	2	13.3	15	0.9
D/NC	11	167	253	431	58.0	192	91	29	312	42.0	743	42.2
F	17	118	167	302	47.7	73	199	59	331	52.3	633	36.0
W	7	37	58	102	27.7	79	91	96	266	72.3	368	20.9
Total	39	331	479	849	48.2	344	382	185	911	51.8	1,760	100.0

Table 7.2. Summary of number of repeated attempts in the course

Background Repeater

			Total												
	ABC - Pass DFW - Unsuccessful											Total			
	Α	В	С	Т	otal	D/NC	F	W	То	tal	#	% col.			
1	37	285	408	730	49.9	292	295	147	734	50.1	1,464	83.2			
2	2	43	56	101	42.6	45	61	30	136	57.4	237	13.5			
3		3	11	14	31.8	5	20	5	30	68.2	44	2.5			
4			3	3	21.4	2	6	3	11	78.6	14	0.8			
5+			1	1	100.0						1	0.1			
Total	39	331	479	849	48.2	344	382	185	911	51.8	1,760	100.0			

Number of times MAC2311 was repeated



Time between attempts of MAC2311

Table 7.3. Summary of semester gap between student's previous course attempt at UCF and the current attempt

Background Repeater

		MAC2311										t a l
		AB	BC -	Pass		DFW	' - Uı	ful	TOLAI			
	Α	A B C Total D/NC F W Total							#	% col.		
Attempted in successive semester	25	242	374	641	52.2	210	268	108	586 47.8		1,227	69.7
With a gap of 2 to 3 semesters	12	73	83	168	38.7	102	102	62	266	61.3	434	24.7
With a gap of 4 to 6 semesters	2	9	22	33	42.9	23	7	14	44	57.1	77	4.4
With a gap of more than 6 semesters		7	-	7	31.8	9	5	1	15	68.2	22	1.3
Total	39	331	479	849	48.2	344	382	185	911	51.8	1,760	100.0



Updated Data

- Original data 2009/10 to 2013/14
- Updated data 2011/12 to 2015/16



Table 6. Summary of Transfer Institutions where pre-requisite attempted by students

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COVIE					ABC - Pass					DFW - Unsuccessful				Total	
		Α	В	С	Tot	al	D/NC	F	W	Tot	al	#	% col .		
	Prerequisite Course														
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		Total	1,111	2,381	2,326	5,818	57.6	1,674	1,413	1,204	4,291	42.4	10,109	100.0	

51.2%

previously 4 & 1 Comparison: Tables 6 & 1

Examples:

COURSES	Range	UCF	Tsfr	DC	Range	UCF	Tsfr		DC
BSC 2011C Biology II	09-10 to	84%	69%		11-12 to	87.1%	个 _{73.9%}	\uparrow	
PCB 3044 Principles of Ecology	13-14	n=1,722	n=916	74.4%	15-16	n=1,679	n=1084		71.1%

COURSES	Range	UCF	Tsfr	DC	Range	UCF		Tsfr		DC
PHY 2048C Physics for										
Engineers and Scientists	09-10 to	62.6%	56.8%	ED 20/	11-12 to	62.4%	\leftrightarrow	57.2%	\uparrow	10 20/
EGN 3310 Engineering	13-14	n=3,304	n=1,585	52.5%	15-16	n=3,427		n=1,628		40.5%
Analysis - Statics										



Breakout Group Discussion



The prompt...

Consider the curriculum mapping exercise, the course sequence data, the discipline discussions, and your institution's performance metrics...

- What are the top three barriers to student success?
- What can I (or my colleagues and I, or my college) do to help overcome these barriers?
- What do we need make it happen?















15 MINUTE BREAK

AND

BREAKOUT GROUPS DISCUSSION

















LUNCH CATERED BY:



Simply. Great. Food.















CURRICULUM ALIGNMENT REPORT

Harrison Oonge, Ed.D.

Assistant Dean, College of Undergraduate Studies, UCF



Background

- Began in 2006
- Seven disciplines
- Two disciplines have been discontinued
 - Biomedical Sciences
 - Computer Programming



1. To <u>synchronize core content</u> <u>and competencies</u> gained by students taking cornerstone courses that are transferrable within partner colleges and UCF

Goals of Curriculum Alignment

Strong focus on student success

2. To ensure that the competencies gained by students taking these courses <u>are</u> <u>sufficient for successful progression to a</u> <u>requisite/next level course</u> at any institution with the ultimate goal of a UCF bachelor's degree (Dorman, et al, 2017. *Curriculum Alignment Handbook*)



Logic

- Cornerstone course sequences (e.g., Calc. I Calc. II)
- Freshman & sophomore courses
- Used in A.A./A.S. degrees
- Offered in the seven institutions



Continuous Alignment





Alignment





Number of Meetings

	Number of Meetings
Physics	14
Mathematics/Statistics	21
Chemistry	21
Biology	16
Engineering	7
Computer Science	3
Total	82

Five Curriculum Alignment Conferences



Survey Responses

Institution	Collected Responses
College of Central Florida	2
Daytona State College	7
Eastern Florida State College	7
Lake Sumter State College	5
Seminole State College	7
Valencia College	18
UCF	9
Total Responses	55







Achievements

- Sharing of course sequence data
- Course pre-requisites and co-requisites worksheet
- Course topics, subtopics, & learning outcomes worksheets
- Syllabus repository
- Sharing of advising information



Completed Activities

Syllabi, Topics, Subtopics, Learning Outcomes

Completed worksheets for:

- Biology
- Chemistry
- Physics
- Math courses except MAC 1147 & MAP 2302
- Engineering discussions only



Changes Made





Changes Made

- Syllabus
 - Better scope of coursework across partnered institutions
 - Edits to syllabus, course topics, and learning outcomes
- Credit Hours
 - Changed credit hours for MAC 2311 from 5 to 4
- Aligning topics taught
 - In designing our course plan for Organic Chemistry 1 and 2, we made sure we covered the topics that are covered by other institutions which are part of Curriculum Alignment.
 - Moved Thermochemistry to Gen Chem 1 and Solutions to Gen Chem 1



Changes

- Pre-requisites
 - Additionally, the full time chemistry faculty made changes in the prerequisites more specifically to have College Algebra as a pre requisite for General Chemistry courses.

Changes have involved key stakeholders



INTERNAL ALIGNMENT

Internally Aligned Not Internally Aligned





Internal Alignment

Syllabus, Topics, Subtopics

Discipline	CF	DSC	EFSC	LSSC	SSC (All)	VC (All)	UCF
Biology			~	~	✓ *		~
Chemistry			\checkmark	~	~		
Engineering			~	~	~		
Mathematics		~	✓	~	~		~
Physics			\checkmark	~	~		

Valencia provides faculty with a checklist for important components in the syllabi



Mentoring/Onboarding New Faculty

Discipline	DSC	LSSC	SSC	VC Osceola	VC West	UCF
Biology		~		~	~	
Chemistry		~		✓	~	
Engineering				✓	~	
Mathematics	~		~	✓	~	✓
Physics		~	~		~	



Mentoring/Onboarding New Faculty

Math

- Valencia East: We do have some training and optional mentoring for new faculty and adjuncts.
- Lake Sumter: All have FT liaison who shared info w/those who teach

Physics

<u>Valencia Osceola</u>: We connect new faculty with a seasoned instructor who will help them get acquainted with the course and resources available to them. The campus offers a professional development course, OC 101, for all new faculty. During the course, faculty have an opportunity to meet our Campus President, discuss recommended syllabus components, learn about what teaching at learning-centered Valencia College looks like, and discuss their ongoing professional development through Faculty & Instructional Development.

Biology

<u>Valencia West</u>: We have a 5 page <u>onboarding checkoff tool</u> for all new professors. Each new professor aligns with one of my tenure/tenure-track professors for mentoring purposes; the mentor mentee program offers a list of options the mentor can provide for the mentee, but the mentorship options can vary from professor to professor depending on their mentee's needs



Advising Maps

- Have advising maps: 31 out 53 respondents
- No advising maps 22 out of 53
- Would be interested in developing advising maps: 21



Assessing CA

• Suggestions from Fall CA meetings:

- Shared final exam
 - LO based (would this be forced alignment?)
- Graduation rate data
- Diagnostics/pre-assessments
- Document Analysis of syllabi
- Comparing successful vs. unsuccessful transfer students



What we are excited about

- Space for inter-institutional collaboration and sharing of discipline specific insights
 - Support system for cross campus/college collaboration
 - Interaction with colleagues the State Colleges has been very important.
 I have a better understanding of their students' needs. We have started a program to facilitate the transition of their students into our major



Next Steps

- Joint projects e.g., undergraduate research projects
- Sharing and discussion of tests
- Building of open resources and tools
- Discussions on pedagogy
 - Discussions on how to foster student's metacognitive skills of students
- Creating a definite pathway for 2+2 transfer
- Textbook alignment



Questions















REPORT OUT: GROUP DISCUSSIONS

Teresa Dorman, Ed.D.

Associate Dean, College of Sciences, UCF



VALENCIACOLLEGE









PANEL DISCUSSION: NEXT STEPS FOR CURRICULUM ALIGNMENT WHERE DO WE GO FROM HERE?





VALENCIACOLLEGE

Karen Borglum, Ed.D.

Assistant Vice President of Curriculum and Articulation, Valencia College

















CLOSING REMARKS





CENTRAL FLORIDA













UPCOMING CURRICULUM **ALIGNMENT MEETINGS**

Engineering Curriculum Alignment Meeting Friday, March 24, 2017 10:00am - 2:00pm UCF.

Biology Curriculum Alignment Meeting

Friday, March 31, 2017 10:00am - 2:00pm UCF

Physics Curriculum Alignment Meeting

Friday, April 21, 2017 10:00am - 2:00pm Valencia College

