

October 5, 2016

Dear Undergraduate Council,

On behalf of the faculty of the College of Arts and Sciences, the Education Policy Committee discussed and approved the Chemistry B.A. and B.S. Undergraduate Program Change proposals 9:0:0 on Tuesday, October 4, 2016.

Sincerely,



Christia Brown
Chair, Education Policy Committee

CHANGE UNDERGRADUATE DEGREE PROGRAM

PLEASE NOTE: To ensure that a series of changes to an existing degree program does not essentially create a new program, the Southern Association for the Accreditation of Colleges and Schools (SACS) requires submission of its Substantive Change Checklist for every program change. Prior to college-level review, you must fill out and submit the [SACS Substantive Change Checklist](#) to the Office of Institutional Effectiveness. Contact Institutional Effectiveness (institutionaleffectiveness@uky.edu) for assistance.

Once approved at the college level, your college will send the proposal to the appropriate Senate academic council (HCCC and/or UC) for review and approval. Once approved at the academic council level, the academic council will send your proposal to the Senate Council office for additional review and then a 10-day posting online, during which senators review on their own and have an option to register an objection if they so desire. If no objection is raised to the Senate Council Office within ten days of the posting the proposal, then the program change is approved. The Senate Council Office will report approvals to the Provost, Registrar and other appropriate entities, including the contact person.

For every proposed change, you MUST also include the existing requirement.

SUMMARY OF CHANGES

Check all that apply.

<input checked="" type="checkbox"/> Courses	<input type="checkbox"/> Program name	<input checked="" type="checkbox"/> Total required credit hours	<input type="checkbox"/> Student learning outcomes
<input type="checkbox"/> Criteria for admissions/progression/termination	<input type="checkbox"/> Certificate assessment	<input type="checkbox"/> Other	

1. General Information

1a	Date of contact with Institutional Effectiveness (IE) ¹ :	12/15/16			
	<input checked="" type="checkbox"/> Appended to the end of this form is a PDF of the reply from Institutional Effectiveness.				
1b	College ² :	Arts and Sciences	Department ² :	Chemistry	
1c	CIP code ³ :	40.0501	Today's Date:	1/15/16	
1d	Current major name: (Biology, Design, etc.)	Chemistry	Proposed major name:	Chemistry	
1e	Current Degree (BA, BFA, etc.):	BA	Proposed degree:	BA	
1f	Will there be any changes regarding a track(s) for the program?			Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
1g	Accrediting agency, if applicable:				
1h	Date of most recent periodic program review for this degree:	02/09/2016			
1i	Requested effective date:	<input checked="" type="checkbox"/> Fall semester following approval.	OR	<input type="checkbox"/> Specific Date ⁴ : Fall 20	

¹ Prior to college-level review, you must fill out and submit the SACS Substantive Change Checklist to the Office of Institutional Effectiveness. You can reach Institutional Effectiveness by phone or email (257-2873 or institutionaleffectiveness@uky.edu).

² It is not possible to change the home academic unit of a degree program via this form. To change the home unit, visit <http://www.uky.edu/faculty/senate> and search for forms related to academic organizational structure.

³ The CIP code is provided by Institutional Effectiveness. If a different CIP code is necessary, the program may undergo a review similar to the new program approval process.

⁴ No program change(s) will be effective until all approvals are received.

1j	Contact person name:	Art Cammers (CHE DUS)	Phone / Email:	323-8977 / a.cammers@uky.edu
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2. Overview of Changes

2a	Describe the rationale for the changes, including results from the most recent program review if applicable. (450 word limit)		
	<p>► The UK CHE department would prefer to have the UK WRD department fulfill the Graduate Composition and Communication Requirement (GCCR) for all A&S chemistry majors: BA, BS Trad., BS Biochem. and the upcoming BS Materials. Currently the GCCR is fulfilled by two courses: CHE 372 and 472 at one credit each. To meet the GCCR, students are doing more than 2 credits work in these courses.</p> <p>UK Chemistry is currently straining to meet its teaching requirements. We recently collaborated with the WRD program in the creation of WRD 310, Writing in the Natural Sciences (3 cr.). WRD covers the GCCR for the UK College of Engineering in WRD 204, Technical Writing.</p> <p>UK Chemistry plans to collaborate, contribute to content, guest lecture and communicate with WRD regarding instruction in chemistry communication and composition, but UK CHE will rely on expertise in UK WRD for instruction.</p> <p>► Along with the GCCR program change rationalized above, the current program change also has a one-credit hour decrease because UK Chemistry has submitted a course change dropping one credit in CHE 440, Introduction to Physical Chemistry.</p> <p>There are no significant content changes. The rationale for the requested decrease in credit hours from 4 to 3 is: CHE 440G is our 1-semester survey of physical chemistry, populated largely by BA chemistry majors. For historical reasons, this course is currently offered as a four-credit course, with the extra hour being devoted to recitation and/or problem solving sessions.</p> <p>Rationale:</p> <ol style="list-style-type: none"> 1. This is the only four-credit physical chemistry course that we offer. CHE 442G (Thermodynamics and Kinetics), CHE 446G (Physical Chemistry for Engineers), CHE 547 (Principles of Physical Chemistry I) and CHE 548 (Principles of Physical Chemistry II) are all 3-credit courses. This change would make CHE 440G consistent with our other treatment of the topic, in courses that are often used as substitutes for CHE 440. 2. Although arguments could be made for inclusion of more recitation sections at the upper levels, in fact very few upper level courses have a recitation hour, recitations devoted to lower level courses optimize our resources. 3. Enrollments have increased to the point where we will have to offer CHE 440G in the fall and spring semesters. The recitation impedes the course scalability. The recitation could be handled by teaching assistants, however history has shown that it is very difficult to find qualified TAs for upper level physical chemistry. 		
2b	Use the fields below, as applicable, to identify the areas in which changes will be made.		
		Current	Proposed
i.	Credit Hours of Premajor Courses:		
ii.	Credit Hours of Preprofessional Courses:		
iii.	Credit Hours of Major Core Course Requirements	19	16
iv.	Minimum Credit Hours of Guided Electives:		
v.	Minimum Credit Hours of Free Electives:	21	21
vi.	Credit Hours for Track 1 (name):		

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vii.	Credit Hours for Track 2 (name):		
viii.	Credit Hours for Track 3 (name):		
ix.	Credit Hours for Track 4 (name):		
x.	Credit Hours for Track 5 (name):		
xi.	Credit Hours for Required Minor:		
xii.	Total Credit Hours Required by Level:	100-level:	
		200-level:	
		300-level:	1
		400-level:	7
		500-level:	
TOTAL CREDIT HOURS REQUIRED FOR GRADUATION:		<u>122</u>	<u>122</u>
xv.	If the total hours required for graduation have changed, explain below. (150 word limit)		
	The CHE GCCR (CHE 372 (1 cr) + CHE 472 (1 cr) replaced by WRD 310 (3 cr)) is proposed to increase from 2 to 3 credits. The 3 cr bid has been made by WRD. = +1 cr UK Chemistry is taking CHE 440 from 4 to 3 credits. =-1 cr The total programmatic credit hour change = 0 cr.		
2c	Will the requested change(s) result in the use of courses from another educational unit?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	If "Yes," describe generally the courses and how they will used.		
	New course WRD 310 (3 cr) Writing in the Natural Sciences fulfills the GCCR for all CHE majors.		
	If "Yes," two pieces of supporting documentation are required.		
	<input checked="" type="checkbox"/> Check to confirm that appended to the end of this form is a letter of support from the appropriate chair/director ⁵ of each unit from which individual courses will be used.		
	<input checked="" type="checkbox"/> Check to confirm that appended to the end of this form is verification that the chair/director of each affected unit has consent from the faculty members of the unit. This typically takes the form of meeting minutes.		
2d	Will the proposed change(s) affect an associated minor?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	If "Yes," the department must also submit a change form to change the minor.		
3. Course Sharing			
3a.	Will the requested changes result in the use of courses from another unit?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	If "Yes," describe generally the courses and how they will used.		
	The A&S WRD developed a course for CHE majors to complete the GCCR, WRD 310 - Writing in Natural Sciences) will be taught by WRD faculty.		
	If "Yes," two pieces of supporting documentation are required.		
	<input checked="" type="checkbox"/> Check to confirm that appended to the end of this form is a letter of support from the other units'		

⁵ A dean may submit a letter only when there is no educational unit below the college level, i.e. there is no department/school.

	chair/director ⁶ from which individual courses will be used.
	<input checked="" type="checkbox"/> Check to confirm that appended to the end of this form is verification that the chair/director of the other unit has consent from the faculty members of the unit. This typically takes the form of meeting minutes.

3. UK Core Courses

3a	Are there any proposed changes to the UK Core requirements for the program? (If “Yes,” indicate and proceed to next question. If “No,” indicate and proceed to 4a.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	If “Yes,” note the specific changes in the grid below.		

UK Core Area	Current Course	Current Credits	Proposed Course	Proposed Credits
I. Intellectual Inquiry				
Arts and Creativity				
Humanities				
Social Sciences				
Natural/Physical/Mathematical				
II. Composition and Communication				
Composition and Communication I	CIS/WRD 110	3	<i>CIS/WRD 110</i>	3
Composition and Communication II	CIS/WRD 111	3	<i>CIS/WRD 111</i>	3
III. Quantitative Reasoning				
Quantitative Foundations				
Statistical Inferential Reasoning				
IV. Citizenship (one course in each area)				
Community, Culture & Citizenship in USA				
Global Dynamics				
Total UK Core Hours		=====		=====

3b	Provide the Bulletin language about UK Core.

4. Graduation Composition and Communication Requirement

4a	Will the Graduation Composition and Communication requirement be changed? (If “Yes,” indicate and proceed to next question. If “No,” indicate and proceed to 5a.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	If “Yes,” note the specific changes below, including changes to credit hours.		
	If the course(s) used are from outside the home unit, one piece of supporting documentation is required.		
	<input checked="" type="checkbox"/> Check to confirm that appended to the end of this form is a letter of support from the other units’ chair/director ⁷ from which individual courses will be used.		
	Current	Proposed	
i.	<input type="checkbox"/> Single course in home unit:	<input type="checkbox"/> <i>Single course in home unit:</i>	
ii.	<input checked="" type="checkbox"/> Multiple courses in home unit. CHE 372/472	<input type="checkbox"/> <i>Multiple courses in home unit.</i>	

⁶ A dean may submit a letter only when there is no educational unit below the college level, i.e. there is no department/school.

⁷ A dean may submit a letter only when there is no educational unit below the college level, i.e. there are no departments/schools.

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iii.	<input type="checkbox"/> Single course outside home unit.	<input checked="" type="checkbox"/> <i>Single course outside home unit. WRD 310</i>
iv.	<input type="checkbox"/> Multiple courses outside home unit.	<input type="checkbox"/> <i>Multiple courses outside home unit.</i>
v.	<input type="checkbox"/> Course(s) inside & outside home unit.	<input type="checkbox"/> <i>Course(s) inside & outside home unit.</i>

4b Provide the Bulletin language about GCCR below.
WRD 310 "Writing in the Natural Sciences"

5. Other Course Changes

5a Will the college-level requirements change? (If "Yes," indicate and note the specific changes in the grid below. If "No," indicate and proceed to question 5c.) Yes No

Current			Proposed			
<input type="checkbox"/> Standard college requirement			<input type="checkbox"/> <i>Standard college requirement</i>			
<input type="checkbox"/> Specific course			<input type="checkbox"/> <i>Specific course</i>			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ⁸
						Select one....
						Select one....
						Select one....

5b Will the existing language in the Bulletin about college-level requirements change? Yes No

If "Yes," provide the new language below.

5c Will the pre-major or pre-professional course requirements change? (If "Yes," indicate and note the specific changes in the grid below. If "No," indicate and proceed to question 5e.) Yes No

Current			Proposed			
<input type="checkbox"/> Standard college requirement			<input type="checkbox"/> <i>Standard college requirement</i>			
<input type="checkbox"/> Specific course			<input type="checkbox"/> <i>Specific course</i>			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ⁹
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5d Provide the Bulletin language about pre-major or pre-professional courses below.

NA

5e Will the major's core course requirements change? (If "Yes," indicate and note the specific changes in the grid below. If "No," indicate and proceed to question 5g.) Yes No

⁸ Use the drop-down list to indicate if the course is a new course ("new"), an existing course that will change ("change"), or if the course is an existing course that will not change ("no change").

⁹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

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If "Yes," note the specific changes in the grid below.						
Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹⁰
CHE 372	1	Communication In Chemistry 1			DROP CHE 372	Change
CHE 472	1	Communication In Chemistry 2			DROP CHE 472	Change
CHE 440G	4	Intro Phys Chem	CHE 440G	3	credit hour drop	Change
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5f Provide the Bulletin language for major core course requirements.
 No changes to current are required.

5g Will the guided electives change? (If "Yes," indicate and note the specific changes in the grid below. If "No," indicate and proceed to question 5i.) Yes No

Current			Proposed			
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹¹
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5h Provide the Bulletin language for guided electives.
 No changes to current are required

¹⁰ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

¹¹ Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

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5i	Will the free electives change? (If “Yes,” indicate and note the specific changes in the space below. If “No,” indicate and proceed to question 5j.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
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5j	Does the proposed change affect any track(s)? (If “Yes,” note the specific changes using the grid below. If “No,” proceed to question 6.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If more than one track is affected, click HERE for a template. Append a PDF for each affected track to the end of this form.			

Track Name:		<input type="checkbox"/> New Track	<input type="checkbox"/> Changed Track	<input type="checkbox"/> Deleted Track		
Current		Proposed				
Prefix & Nmbr	Credit Hrs	Title	Prefix & Nmbr	Credit Hrs	Title	Course Status ¹²
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....
						Select one....

5k	Provide the Bulletin language for the track.
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6. Semester by Semester Program

List below the typical semester-by-semester program for the major. If multiple tracks are available, click [HERE](#) for a template for additional tracks and append a PDF of each track’s courses to the end of this form.

YEAR 1 – FALL: (e.g. “BIO 103; 3 credits”)	<ul style="list-style-type: none"> • UK Core CC1 3 • UK Core QFO (MA113: Calculus I AND MA 193: Supp. Workshop I OR MA 137: Calculus I) 4-5 • UK Core NPM (CHE 105: Gen. Chem. I) 4 • UK Core NPM (CHE 111: Gen. Chem. I Lab) 1 • UK Core ACR 3 • UK 101 1 	YEAR 1 – SPRING:	<ul style="list-style-type: none"> • UK Core CC2 3 • UK Core HUM 3 • A&S NS (CHE 107: Gen. Chem. II) 3 • A&S Lab (CHE 113: General Chemistry II Lab) 2 • MA 114: Calculus II AND MA 194: Supp. Workshop II OR MA 138: Calculus II 4-5
YEAR 2 - FALL :	<ul style="list-style-type: none"> • UK Core SIR (STA 210: Intro. to Stat. Reason) 3 • UK Core SSC 3 • CHE 230: Org. Chem I 3 • CHE 231: Org Chem Lab I 1 PHY 211: Gen. Phys. I 5 	YEAR 2 – SPRING:	<ul style="list-style-type: none"> • UK Core CCC 3 • CHE 226: Anal Chem 3 • CHE 232: Org. Chem. II 3 • CHE 233: Org. Chem. II Lab 1 • PHY 213: Gen. Phys. II 5
YEAR 3 - FALL:	<ul style="list-style-type: none"> • Foreign language 101 4 • A&S HUM 3 • CHE 440G: Intro. Phys. 	YEAR 3 - SPRING:	<ul style="list-style-type: none"> • Foreign language 102 4 • A&S SS 3 • CHE 441: Phys. Chem. Lab 2

¹² Use the drop-down list to indicate if the course is new, exists but will change, or exists but will not change.

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	Chem. 3 • CHE Major field op. 3 • WRD 310: Writing Nat. Sci. (GCCR) 3		• CHE Major field op. 3 • CHE Major field op. 3
YEAR 4 - FALL:	• Foreign language 201 3 • UK Core GDY 3 • A&S HUM 3 *CHE Major field op 3 *CHE Major field op 3	YEAR 4 - SPRING:	• A&S SS 3 • CHE Major field op. 3 • CHE Major field op 3 • Elective 3 ◇300+ Elective 3

7. Approvals/Reviews

Information below does not supersede the requirement for individual letters of support from educational unit administrators and verification of faculty support (typically takes the form of meeting minutes).

In addition to the information below, attach documentation of department and college approval. This typically takes the form of meeting minutes but may also be an email from the unit head reporting department- and college-level votes.

	Reviewing Group Name	Date Approved	Contact Person Name/Phone/Email
7a	(Within College)		
	A&S CHE	2/13/2016	Mark Meier / 2573837 / mark.meier@uky.edu
	A&S WRD		Jeff Rice / /
			/ /
			/ /
7b	(Collaborating and/or Affected Units)		
			/ /
			/ /
			/ /
			/ /
			/ /
7c	(Senate Academic Council)		Date Approved
	Health Care Colleges Council (if applicable)		
	Undergraduate Council		1/31/17
			Joanie Ett-Mims

Ett, Joanie M

From: Alexander-Snow, Mia
Sent: Tuesday, January 31, 2017 11:22 AM
To: Harmon, Camille
Cc: Cammers, Arthur; Bosch, Anna; Ett, Joanie M
Subject: RE: Question RE Change Undergraduate Program Form--PIE Response to BA, Chemistry (40.0501)

Camille,

Dear Art:

Thank you for your email regarding the proposed program change(s) to the **Bachelor of Arts in Chemistry (40.0501) and the Bachelor of Science in Chemistry (40.0501)**.

My email will serve 2 purposes: 1.) Next steps for SACSCOC, and 2.) Verification and notification that you have contacted PIE—a Senate requirement for proposal approval.

1. **Next steps for SACSCOC:** Non required
2. **Verification that PIE has reviewed the proposal:** Based on the proposal documentation presented and Substantive Change Checklist, the proposed program changes (refer to list below) are not substantive changes as defined by SACSCOC, the university's regional accreditor. Therefore, no additional information is required by the Office of Planning & Institutional Effectiveness at this time. The proposed program change(s) may move forward in accordance with college and university-level approval processes.

List of Proposed Change(s):

- change the UK A&S Chemistry GCCR from CHE 372 (1 cr) and CHE 472 (1 cr) (Communications Courses offered by UK Chemistry) to WRD 310 Writing in the Natural Sciences (3 cr) in Writing and Rhetoric Department.
- CHE 440G Introduction to Physical Chemistry is going from 4 credits to 3 credits which will impact the total credit hours in the CHE BA and the CHE BS BIOCHEM TRACK programs.

Should you have questions or concerns about UK's substantive change policy and its procedures, please do not hesitate contacting me.

Thank you for your patience.

Mia

Mia Alexander-Snow, PhD

Director, Planning and Institutional Effectiveness

Phone: 859-257-2873

Fax: 859-323-3999

Visit the Institutional Effectiveness Website: <http://www.uky.edu/ie>

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From: Harmon, Camille
Sent: Tuesday, January 31, 2017 11:00 AM
To: Alexander-Snow, Mia <mia.alexander-snow@uky.edu>
Cc: Cammers, Arthur <a.cammers@uky.edu>; Bosch, Anna <anna.bosch@uky.edu>; Ett, Joanie M <joanie.ett-mims@uky.edu>
Subject: RE: Question RE Change Undergraduate Program Form
Importance: High

Good Morning Mia,

Would you mind reaching out to Joanie Ett-Mims regarding the CHE undergraduate program change? This program change is currently being held at Undergraduate Council until they have received clarification from your office regarding the email below.

Please let me know if I can provide any additional information.

Thank you,

Camille Harmon

Dean's Office Administrative Assistant
College of Arts and Sciences
University of Kentucky
202 Patterson Office Tower
859-257-3966

From: Ett, Joanie M
Sent: Tuesday, January 31, 2017 10:49 AM
To: Harmon, Camille <camille.harmon@uky.edu>
Subject: FW: Question RE Change Undergraduate Program Form

From: Stephenson, Tammy J
Sent: Wednesday, January 25, 2017 8:33 AM
To: Institutional Effectiveness <InstitutionalEffectiveness@uky.edu>
Cc: Cammers, Arthur <a.cammers@uky.edu>; Ett, Joanie M <joanie.ett-mims@uky.edu>; Spriggs, Amy D <amy.spriggs@uky.edu>
Subject: Re: Question RE Change Undergraduate Program Form

Good morning Mia,

We are ready to move the BS and BA in Chemistry proposals forward at the Undergraduate Council level. In the email below you mention the BS in Chemistry specifically. Would it be possible to either add BA in Chemistry to this email or have a separate email with the BA in Chemistry, just to cover all of our bases before moving the proposal forward to the Senate Council?

Thanks so much and have a nice day.

Warm regards,
Tammy



Tammy J. Stephenson, PhD

Faculty & Director of Undergraduate Studies
Department of Dietetics and Human Nutrition
University of Kentucky
203 Funkhouser Building, Lexington, KY 40506-0054
(859) 257-2353
Tammy.Stephenson@uky.edu

From: Institutional Effectiveness <InstitutionalEffectiveness@uky.edu>

Date: Tuesday, January 24, 2017 at 11:39 AM

To: "Cammers, Arthur" <a.cammers@uky.edu>, Institutional Effectiveness <InstitutionalEffectiveness@uky.edu>

Cc: "Stephenson, Tammy J" <tammy.stephenson@uky.edu>

Subject: RE: Question RE Change Undergraduate Program Form

Dear Art:

Thank you for your email regarding the proposed program change(s) to the **Bachelor of Science in Chemistry (40.0501)**.

My email will serve 2 purposes: 1.) Next steps for SACSCOC, and 2.) Verification and notification that you have contacted PIE—a Senate requirement for proposal approval.

1. **Next steps for SACSCOC:** Non required
2. **Verification that PIE has reviewed the proposal:** Based on the proposal documentation presented and Substantive Change Checklist, the proposed program changes (refer to list below) are not substantive changes as defined by SACSCOC, the university's regional accreditor. Therefore, no additional information is required by the Office of Planning & Institutional Effectiveness at this time. The proposed program change(s) may move forward in accordance with college and university-level approval processes.

List of Proposed Change(s):

- change the UK A&S Chemistry GCCR from CHE 372 (1 cr) and CHE 472 (1 cr) (Communications Courses offered by UK Chemistry) to WRD 310 Writing in the Natural Sciences (3 cr) in Writing and Rhetoric Department.
- CHE 440G Introduction to Physical Chemistry is going from 4 credits to 3 credits which will impact the total credit hours in the CHE BA and the CHE BS BIOCHEM TRACK programs.

Should you have questions or concerns about UK's substantive change policy and its procedures, please do not hesitate contacting me.

Thank you for your patience.

Mia

Mia Alexander-Snow, PhD

Director, Planning and Institutional Effectiveness

Phone: 859-257-2873

Fax: 859-323-3999

Visit the Institutional Effectiveness Website: <http://www.uky.edu/ie>

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From: Cammers, Arthur
Sent: Tuesday, January 24, 2017 11:07 AM
To: Institutional Effectiveness <InstitutionalEffectiveness@uky.edu>; Alexander-Snow, Mia <mia.alexander-snow@uky.edu>
Cc: Stephenson, Tammy J <tammy.stephenson@uky.edu>
Subject: RE: Question RE Change Undergraduate Program Form

Hello Mia:
Where are we at regarding this A&S Chemistry program change?
Art

Arthur Cammers, PhD
Assoc. Prof. & Dir. Undergrad. Studies
University of Kentucky, Chemistry
349 Chem/Phys Bldg. or 161B Jacobs Science Bldg.
(off.) 859-323-8977
(dept. off.) 859 257-4741

From: Cammers, Arthur
Sent: Thursday, December 15, 2016 14:31
To: Institutional Effectiveness <InstitutionalEffectiveness@uky.edu>
Subject: RE: Question RE Change Undergraduate Program Form

Sorry, edit made and attached.

From: Institutional Effectiveness
Sent: Thursday, December 15, 2016 13:54
To: Cammers, Arthur <a.cammers@uky.edu>; Institutional Effectiveness <InstitutionalEffectiveness@uky.edu>
Cc: Stephenson, Tammy J <tammy.stephenson@uky.edu>; Meier, Mark <mark.meier@uky.edu>
Subject: RE: Question RE Change Undergraduate Program Form

Dear Dr. Cammers:

Thank you for submitting the SACSCOC Substantive Checklist(s) and the Senate Undergraduate Degree Change Form(s) for the proposed program change(s) to the following degree program(s):

- **BS/BS in Chemistry (40.0501)**

The following is missing from your documentation:

Program CIP #: I assume that you are making changes to the general Chemistry program, which has the CIP# of 40.0501; and the change is for the bachelor's program, NOT the master's or doctoral program.

Program Description Information on the SACSCOC Substantive Checklist

Once you confirm the CIP # and complete the top portion of the SACSCOC Checklist, I will be able to provide verification that proposed program changes align with state and university accreditation requirements. If I can have the information by **Friday, December 16**, that would be great!

Thank you for your patience and support of the University's institutional effectiveness efforts. Should you have questions or concerns about UK's substantive change policy and its procedures, please do not hesitate contacting me.

Regards,

Mia

Mia Alexander-Snow, PhD

Director, Planning and Institutional Effectiveness

Phone: 859-257-2873

Fax: 859-323-3999

Visit the Institutional Effectiveness Website: <http://www.uky.edu/ie>

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From: Cammers, Arthur

Sent: Thursday, December 15, 2016 11:25 AM

To: Institutional Effectiveness <InstitutionalEffectiveness@uky.edu>

Cc: Stephenson, Tammy J <tammy.stephenson@uky.edu>; Meier, Mark <mark.meier@uky.edu>

Subject: Question RE Change Undergraduate Program Form

Greetings Office of Institutional Effectiveness.

Attached please find proposals for changes to existing chemistry major programs at UK A&S.

Summary:

- (1) UK A&S Chemistry would like to change the UK A&S Chemistry GCCR from CHE 372 (1 cr) and CHE 472 (1 cr) (Communications Courses offered by UK Chemistry) to WRD 310 Writing in the Natural Sciences (3 cr) in Writing and Rhetoric Department.
- (2) CHE 440G Introduction to Physical Chemistry is going from 4 credits to 3 credits which will impact the total credit hours in the CHE BA and the CHE BS BIOCHEM TRACK programs.

Attached:

- (1) Substantive Program Change Checklist
- (2) CHE BA Program Change Form
- (3) CHE BS Program Change Form
- (4) ADDENDUM listing curricular maps for the BIOCHEM, and MAT. SCI. major track options.
- (5) Syllabus for WRD 310

Let me know if there is any more attention I need to give to this issue.

CC: Prof. Tammy Stephenson, Dietetics and Human Nutrition (Committee Member of Undergraduate Council handling these Program Changes)

CC: Prof. Mark Meier, Chemistry Chair

Arthur Cammers, PhD

Assoc. Prof. & Dir. Undergrad. Studies

University of Kentucky, Chemistry

349 Chem/Phys Bldg. or 161B Jacobs Science Bldg.

(off.) 859-323-8977

(dept. off.) 859 257-4741

Memorandum of Agreement

Department of Writing Rhetoric and Digital Studies (WRD) and Department of Chemistry (CH)
University of Kentucky

WRD providing a Graduation Communication and Composition course for Chemistry students.
Effective: Aug 1, 2016 through May 31, 2020

Background

The University Senate has voted to transform the current graduation-writing requirement (GWR) into a graduation composition and communication requirement (GCCR) that is appropriate for the academic program a given major represents. The GCCR will be anchored by writing appropriate to the discipline. It will also include at least one other modality of communication—oral or visual. The Senate has established the principles and requirements of the GCCR, and the Chemistry faculty has voted to fulfill the requirement by one class.

Over the last several semesters faculty from WRD and CH have been in discussion about the requirements and the type of communication relevant to CH graduates. From those discussions, and subsequent planning, the CH faculty voted to formally require the GCCR for the Chemistry program be satisfied by a WRD course equivalent to WRD 310, but for Chemistry students.

Agreement

1. WRD shall have the Chemistry related WRD310 approved as a GCCR course. In general the course will have the following specific requirements: written assignment(s) of at least 4,500 words in English (the equivalent of 12-15 pages of double-spaced, typewritten text), student presentations of at least 10 minutes in English, and evidence of draft/feedback/revision process on the required GCCR assignment(s).
2. The WRD course shall have a specific program learning outcome and assessment plan focused directly on the GCCR. The assessment plan will include (a) clear goals for successful achievement of the GCCR, (b) specific criteria and rubrics for systematically assessing student work, and (c) a cogent description of how assessment results will be utilized to revise GCCR instruction and/or curriculum if the goals are not met. CH will be using this information as part of the program accreditation by ABET, Inc, and reporting requirements to the University Senate.
3. WRD shall offer enough sections (no more than 25 students per section) each year so that CH students (currently 80-90 students per year) can fulfill the GCCR.
4. WRD and CH shall coordinate scheduling of the WRD310 course to minimize scheduling conflicts with required CH courses.
5. CH faculty shall provide to WRD faculty/instructors examples/types of communication appropriate for graduates of the Chemistry program.
6. Faculty designated by the WRD Director and CH Chair shall meet annually to review the course assessment results, the assignments, and recommend improvements/changes to the course and/or assignment to ensure consistency with the needs of the CH program graduates. The results will be reported to the CH Educational Team, and faculty as a whole, and used in the CH program's accreditation reports.
7. WRD shall investigate the possibility of obtaining approval of WRD310 for UKCore. WRD will decide if UKCore approval is in the best interest of the WRD program.
8. CH faculty have already approved an equivalent WRD310 as the GCCR, appropriate for the CH program graduates, and will maintain this as a program requirement.

Renewal

This agreement shall be for 4 years with the possibility of renewal. In year 3 of the agreement program faculty from each department will review and consider this agreement renewal. If agreed to by both programs, the renewal shall be approved in year 4. Renewals shall not be for less than a 4 year term.

Termination

In the unlikely event that either program would like to terminate this agreement, the program initiating program shall give the other program a 1 year written notice of intent to terminate this agreement.



Jeff Rice, WRD
Professor and Chair



Mark Meier, CE
Professor and Chair

Graduation Composition and Communication Requirement (GCCR)
GCCR PROPOSAL AND CHANGE UNDERGRADUATE PROGRAM FORM

I. General Information:

College:	<u>Arts & Sciences</u>	Department (Full name):	<u>Chemistry</u>		
Major Name (full name please):	<u>Bachelor of Science with a major in CHEMISTRY and Bachelor of Science with a major in CHEMISTRY</u>	Degree Title:	<u>BA, BS</u>		
Formal Option(s), if any:	<u>BS Biochemistry Option BS Material Science Option</u>	Specialty Field w/in Formal Options, if any:	_____		
Requested Effective Date:	<u>FALL 2014, IF RECEIVED BY SENATE COUNCIL BY MONDAY, APRIL 7.</u>				
Contact Person:	<u>Arthur Cammers</u>	Phone:	<u>8593339849</u>	Email:	<u>a.cammers@uky.edu</u>

II. Parameters of the Graduation Composition and Communication Requirement (GCCR):

The new GCCR replaces the old Graduation Writing Requirement. It is fulfilled by a course or courses specified within a B.A./B.S. degree program. As outlined in draft Senate Rule 5.4.3.1, the GCCR stipulates that students must successfully complete this requirement after achieving sophomore status and prior to graduation. To satisfy the GCCR, students must earn an average grade of C or better on the designated Composition and Communication (C&C) intensive assignments produced in any given course designated as fulfilling some or all of the GCCR. The requirements for GCCR courses include:

- at least 4500 words of English composition (approximately 15 pages total);
- a formal oral assignment or a visual assignment;
- an assignment demonstrating information literacy in the discipline;
- a draft/feedback/revision process on GCCR assignments.

The program requirements for the GCCR include:

- at least one specific Program Student Learning Outcome for C&C outcomes;
- a plan for assessing both the writing and oral or visual components of the GCCR;
- clear goals, rubrics, and revision plans for GCCR implementation.

Upon GCCR approval, each program will have a version of the following specification listed with its Program Description in the University Bulletin:

"Graduation Composition and Communication Requirement. Students must complete the Graduation Composition and Communication Requirement as designated for this program. Please consult a college advisor or program advisor for details. See also 'Graduation Composition and Communication Requirement' on p. XX of this Bulletin."

III. GCCR Information for this Program (by requirement):

A. List the courses currently used to fulfill the old Graduation Writing Requirement:

CHE 372 (1) and CHE 472 (1)

B. GCCR Program Outcomes and brief description:

1. Please specify the Major/Program Student Learning Outcomes (SLOs) pertaining to Composition & Communication and the GCCR requirement. These are program outcomes, not course outcomes. Please specify the program-level SLOs for C&C in your program:

Communication: Will demonstrate effective oral and written communication of chemical knowledge for professional and general audiences, and use primary chemical literature as knowledge sources.

Cheminformatics Background: <http://en.wikipedia.org/wiki/Cheminformatics> Student will have a working knowledge of how to retrieve scientific results from databases that catalog primary literature.

The student will have a broad perspective on the style of general scientific communication (lab reports, seminars, scientific

**Graduation Composition and Communication Requirement (GCCR)
GCCR PROPOSAL AND CHANGE UNDERGRADUATE PROGRAM FORM**

papers, etc.) and the variability of these throughout scientific disciplines.

2. **Please provide a short GCCR description for your majors (limit 1000 characters):** Please explain the GCCR requirement in language appropriate for undergraduate majors to understand the specific parameters and justification of your program's GCCR implementation plan:

To be able to function as a molecular scientist one needs basic oral presentation, composition and cyber library skills to effectively communicate. These skills are transferrable to pre-professional careers, graduate school, and research, sales or production in the chemical industry. WRD 310 develops these skills with a focus on library science, and oral / written communication.

C. Delivery and Content:

1. **Delivery specification:** for your major/program, how will the GCCR be delivered? Please put an X next to the appropriate option. (Note: it is strongly recommended that GCCR courses be housed within the degree program.)

- a. Single required course within program
 b. multiple required or optional courses within program
 c. course or courses outside program (i.e., in another program)
 d. combination of courses inside and outside program
 e. other (please specify): _

2. **Basic Course Information:** Please provide the following information for course(s) used to satisfy the GCCR, either in whole or in part:

Course #1: Dept. prefix, number, and course title: WRD 310, Writing in the Natural Sciences

- new or existing course? Existing (new courses should be accompanied by a New Course Proposal)
 - if a new course, check here that a New Course Proposal has been submitted for review via eCATS
- required or optional? required
- shared or cross-listed course? shared
- projected enrollment per semester: 30-40

Course #2 (if applicable): Dept. prefix, number, and course title: _____

- new or existing course? _____ (new courses should be accompanied by a New Course Proposal)
 - if a new course, check here that a New Course Proposal has been submitted for review via eCATS
- required or optional? _____
- shared or cross-listed course? _____
- projected enrollment per semester: _____

Course #3 (if applicable): Dept. prefix, number, and course title: _____

- new or existing course? _____ (new courses should be accompanied by a New Course Proposal)
 - if a new course, check here that a New Course Proposal has been submitted for review via eCATS
- required or optional? _____
- shared or cross-listed course? _____
- projected enrollment per semester: _____

3. **Shared courses:** If the GCCR course(s) is/are shared from *outside* the program, please specify the related department or program that will be delivering the course(s). Please provide the following:

- **Contact information of providing program:**
Department of Writing, Rhetoric, and Digital Studies (WRD); Jeff Rice, Chair; Brian McNely, DUS
- **Resources:** what are the resource implications for the proposed GCCR course(s), including any projected budget or staffing needs? If multiple units/programs will collaborate in offering the GCCR course(s), please specify the resource contribution of each participating program.
WRD has adequate resources to staff and offer WRD 310 and presently requires no additional resources.
- **Memorandum of Understanding/Letter of Agreement:** Attach formal documentation of agreement between the providing and receiving programs, specifying the delivery mechanisms and resources allocated for the specified GCCR course(s) in the respective programs (include with attachments).
Date of agreement: 05/23/2016

4. **Syllabi:** Please provide a sample syllabus for each course that will be designated to fulfill the GCCR. Make sure the following

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GCCR PROPOSAL AND CHANGE UNDERGRADUATE PROGRAM FORM

things are clearly indicated on the syllabi for ease of review and approval (check off each):

- the GCCR assignments are **highlighted** in the syllabus and course calendar;
- the GCCR assignments meet the minimum workload requirements as specified by the Senate Rules for GCCR courses (see the draft Senate GCCR rule linked [here](#));
- the elements are specified in the syllabus that fulfill the GCCR requirement for a clear draft/feedback/revision process;
- the grade level requirements for the GCCR are specified on the syllabus (i.e., an average of C or better is required on GCCR assignments for credit);
- the course or sequence of courses are specified to be completed after the first year (i.e. to be completed after completing 30 credit hours) for GCCR credit;
- the course syllabus specifies “This course provides full/partial GCCR credit for the XXX major/program”
 - if the course provides partial GCCR credit, the fulfilled portion of the GCCR must be specified and the other components of the GCCR for the program must be specified: e.g. “This course provides partial credit for the written component of the GCCR for the XXX major/program in conjunction with Course 2”

5. Instructional plan: Summarize the instructional plan for teaching the C&C skills specified in the program SLOs and delivered in the course(s). Include the following information in **brief** statements (1000 characters or less). Information can be cut-and-pasted from the relevant sample syllabus with indications **where** on the syllabus it is found:

- **overview of delivery model:** summarize how the GCCR will be delivered for **all** program majors: explain how the delivery model is appropriate for the major/program and how it is offered at an appropriate level (e.g. required course(s), capstone course, skills practicum sequence of courses, etc.):

Chemistry BA and BS majors will take WRD 310 in their sophomore or junior years to prepare for the scientific writing in their careers and in higher-level classes (Physical Chemistry, Synthetic Organic Chemistry, Lab reports in Inorganic and Advanced Organic laboratories. This GCCR will produce stronger finishers in the UK A&S Chemistry programs and stronger graduate school and job market candidates.

- **assignments:** overview or list of the assignments to be required for the GCCR (e.g. papers, reports, presentations, videos, etc.), with a summary of how these GCCR assignments appropriately meet the disciplinary and professional expectations of the major/program:

Students in WRD 310 will write approximately 5,500–6,500 words in formal assignments during the course, in genres specific to their fields (see syllabus p. 2 for a list of assignments). In addition, students will deliver presentations of research in two different genres, including a poster project that demonstrates facility with both oral and visual communication in the natural sciences.

Through four brief, inquiry-driven assignments (2,000 words, total), students develop their knowledge and practice of genres and norms specific to their discipline. One such deliverable—a working bibliography—demonstrates information literacy, as students are required to identify, trace, explore, and discuss scholarly literature relevant to their final research proposal.

The major course assignments develop a single research project through four interrelated projects: (a) a Literature Review (800–1,200 words); (b) a poster presentation; (c) a 4- to 6-minute project pitch; and (d) a research proposal.

- **revision:** description of the draft/feedback/revision plan for the GCCR assignments (e.g. peer review with instructor grading & feedback; essay drafting with mandatory revision; peer presentations; etc.):

Each of the major assignments includes ample, in-class opportunities and models for development and peer and instructor review of drafted sections (see pp. 7–8 of the syllabus for details on drafts).

- other information helpful for reviewing the proposal:

D. Assessment:

In addition to providing the relevant program-level SLOs under III.B, please specify the assessment plan at the program level for the proposed course(s) and content. Provide the following:

- specify the assessment schedule (e.g., every 3 semesters; biennially):

WRD will randomly sample an agreed upon percentage of Final Project proposals during even years (e.g., 2018, 2020, etc.). Guided by the Chemical Technical Writing rubric (attached), developed by the Department of Chemistry to align with ACS standards, raters will assess student proficiency across 4 metrics that gauge content-specific knowledge

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development, reasoning, and delivery of written and visual arguments.

- **identify the internal assessment authority (e.g. curriculum committee, Undergraduate Studies Committee):**
WRD's Undergraduate Studies Committee will organize and execute assessment, providing an assessment report to the Chair and DUS of Chemistry.
- **if the GCCR course(s) is/are shared, specify the assessment relationship between the providing and receiving programs: explain how the assessment standards of the receiving program will be implemented for the provided course(s):**
See above.

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Signature Routing Log

General Information:


GCCR Proposal Name (course prefix & number, program major & degree):	
Contact Person Name:	
Phone:	
Email:	

Instructions:

Identify the groups or individuals reviewing the proposal; record the date of review; provide a contact person for each entry. On the approval process, please note:

- Proposals approved by Programs and Colleges will proceed to the GCCR Advisory Committee for expedited review and approval, and then they will be sent directly to the Senate Council Office. Program Changes will then be posted on a web transmittal for final Senate approval in time for inclusion in the Fall 2014 Course Bulletin.
- New Course Proposals for the GCCR will still require review and approval by the Undergraduate Council. This review will run parallel to GCCR Program Change review.
- In cases where new GCCR courses will be under review for implementation after Fall 2014, related GCCR Program Changes can still be approved for Fall 2014 as noted *"pending approval of appropriate GCCR courses."*

Internal College Reviews and Course Sharing and Cross-listing Reviews:

Reviewing Group	Date Reviewed	Contact Person (name/phone/email)
Home Program <i>review by Chair or DUS, etc.</i>		/ /
Providing Program <i>(if different from Home Program)</i>		/ /
Cross-listing Program <i>(if applicable)</i>		/ /
College Dean		/ /
		/ /

Administrative Reviews:

Reviewing Group	Date Approved	Approval of Revision/ Pending Approval ¹
GCCR Advisory Committee		

Comments:

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¹ Use this space to indicate approval of revisions made subsequent to that group's review, if deemed necessary by the revising group; and/or any Program Change approvals with GCCR course approvals pending.