

Chemistry Proposal: CHEM A305 & A302 vs. A310 & A311

Contents:

Proposal from Chemistry

Draft CHEM dpcls

Memos of support from the Chairpersons of Biological Sciences, Environment Program, and Psychological Sciences

Draft BIOS, BIOT, PSYP, and PBPH dpcls

PENDING:

Memo of support from Chairperson of Physics

Draft ENVB and ENVT dpcls

College Curriculum Proposal Approval and Routing Form

TITLE OF PROPOSAL: Changing from one 2 credit organic lab to two 1 credit organic labs

Originating Faculty: CJ Stephenson, Qian Qin, Christine Heinecke

Department/College: Chemistry/CAS Chairperson: Bill Walkenhorst

Contact Phone/Email: walken@loyno.edu

Type of Proposal (Check all that apply):

New Major¹ New Minor New Concentration Revise Existing Program

New Course Change to Existing Course Discontinue Program

Undergraduate Graduate Online Professional & Cont. Studies Other

1. Resources and Fees:

If this is a proposed revision, are there existing fees? No Yes \$100 Lab fee

Will course or program fees be required for this course/program? No Yes \$100 Lab fee each

Are new resources needed for implementing this proposal? No Yes

If yes, include complete description and dollar amount in proposal.

2. College Review and Approvals:

a. Department/School Chemistry & Biochemistry/ College of Arts and Sciences
Dr. William Walkenhorst (Chair) Date: 2/6/17
Approved Not Approved

b. College Curriculum Committee _____ (Chair) Date: _____
Approved Not Approved

c. College Dean _____ Date: _____
Supported Not Supported

3. Intercollegiate Review and Recommendations Required as applicable to proposal:

a. Online Education Committee _____ (Chair) Date: _____
Recommended Not Recommended

b. Professional and Continuing Studies Committee _____ (Chair) Date: _____
Recommended Not Recommended

c. Graduate Council _____ (Chair) Date: _____
Recommended Not Recommended

4. University² Recommendations Required as applicable to proposal:

a. University Courses & Curriculum Committee _____ (Chair) Date: _____
Recommended Not Recommended

b. Standing Council for Academic Planning _____ (Chair) Date: _____
Recommended Not Recommended

¹ New Degree to be Offered---Requires SACS Notification 6 Months Prior to Start

² Approval by the Strategic Planning Team, University Budget Committee, and/or Board of Trustees may be required for proposals that have significant impact on resources or mission. Proposals to establish or discontinue degree programs require approval by Board of Trustees and SACS.

COLLEGE COURSE PROPOSAL FORM

Instructions: Use this form for new college course proposals and substantial course revisions.

Department/College: Chemistry & Biochemistry/College of Arts and Sciences

Chairperson: Bill Walkenhorst

Course Title: Organic Chemistry I lab and Organic Chemistry II lab (Limit 28 Characters or Less)
Course Number: CHEM-A310 and CHEM-A311 together will replace Chem A305/A302

Term: x Fall x Spring X Summer Credit Hours: 1 each Major Required Elective

Effective Term F17, S18 Course I.D. (SUBJ-LEVL) CHEM-300 Level Contact Hours 6

Grade Type (Normal or Pass/Fail) **Normal** Maximum Capacity 16

Activity Type (LEC, STU, LAB, LLB...) **Lab**

Inter-disciplinary Classification (s) _____

Common Curriculum Classification (s) _____

Pre-requisites/Registration Controls:

For CHEM A310: Completion of A106 and A108 with at least a C-, enrolled-in or completed CHEM A300;
CHEM A311: enrolled-in or completed CHEM A301 and at least a C- in CHEM A310 _____

New Resources and Fees

- c. If this is a revised course, was there a course fee? Yes X \$ 100
No _____
- d. Will a course fee be required for this course? Yes X \$ 100
No _____
- e. Are new resources needed for implementing this course? Yes _____ No X
If yes, provide descriptions and dollar amounts in Section V.

Course Description: (maximum 350 spaces)

This is a proposal to swap from a 2 credit one-semester organic lab (CHEM A305) to two consecutive one-credit labs over 2 semesters. The change will better align the material taught in lectures and corresponding lab classes. Additionally, an external reviewer recently suggested the reduction of lab hours for chemistry majors. This proposed change will require one fewer lab credit for chemistry majors, and we have checked to make sure students will still have ample access to enough lab credits to fulfill major requirements.

Complete the following sections:

- I. Justification for the course: provide a clear and compelling rationale for any proposed curriculum modification, including additions and deletions to the course inventory, changes in degree/program requirement, new degree programs, and other major curriculum revisions. The justification should state explicitly and clearly how the changes relate to the college and department plans.

The current curriculum is a holdover from when Jass Walia and Kurt Birdwhistell taught the Organic series. Loyola University Chemistry majors currently take 4 total credits in Organic Lab classes. This is higher than the 2 to 3 credits typical around the country. As proposed, the majors will now take the 1-credit A310 followed by the 2-credit A314 for a total of 3 credits of Organic lab. This will allow them an extra hour for an elective or research. Non-majors on a pre-health track are proposed to take the 1 credit A310 in the Fall followed by the 1-credit A311 in the Spring. These courses have been taught this way in the two summer sessions for many decades. This change will satisfy the 2 credits of Organic lab needed for pre-health majors in two semesters rather than one semester for the current 2-credit A305/A302 (A302 is same course but tailored for majors). This should facilitate scheduling for these students by freeing up an additional 3 hour block for them in the Fall.

- II. Impact on the Curriculum:

- A. Review your current course offerings and requirements in light of the proposed change. How will the proposed change or changes improve your program and enhance the educational outcomes you seek to accomplish?

This will allow us to tailor the labs to match up with lecture material more readily, while freeing up 1 credit (3 contact hours) for our students.

- B. How will proposed change impact the major/adjunct/elective hour distribution requirement for the major or program?

For majors this will reduce the required major hours by 1 credit while adding 1 credit of electives.

- III. Impact of a new course on frequency of course offerings:

- A. Specify whether or not the offering of the new course will increase the number of courses or sections offered by the department during the semester in which this course is offered or during the following year;

Overall, this should decrease the number of sections needed to be offered as majors will only need 3 total credits of Organic lab instead of 4 credits. In the Fall, we can offer 3-4 sections of A310 which is 9-12 contact hours total instead of 2 sections of A305, which is 12 contact hours. In the Spring, we will offer several sections of A311 for non-majors and offer A310 only rarely. Since there are always retention losses from Organic 1 lecture to Organic II lecture, we anticipate a small decrease in student numbers for A311. In addition, Environmental Science students may be required to take only Chem A310. These two together may allow an additional savings of one section in some years.

- B. Specify, if there is no increase in the number of courses offered, which course(s) or section(s) will be dropped in a given semester to accommodate the frequency with which this course will be offered; **See A. above**
- C. Specify what effect the new course will have on enrollments in other courses or sections within the department and whether or not offering this course will prevent an important or required course from being offered in a given semester. **See A. above**
- D. Is there a service learning component? If yes, please attach a memo from the director of

service learning describing this component. **No**

- E. Explain how this proposal does or does not impact other departments, especially those serviced by your department or program and those that provide adjunct service to your department or program. **It should allow easier scheduling for students and lab material that goes along better with the accompanying lectures. Total number of credits needed for pre-health will remain the same but Biology, Physics, Psychology, and Environmental Science will need to edit their DPCLs to reflect the new course numbers. In addition, Environmental Sciences may choose to only require A310 for their students. Chemistry would support this change.**
- F. Attach a complete functional syllabus for the course as outlined in the [Syllabus Template & Policy Undergraduate and Non-Law Graduate Courses](#)
- IV. Attach a detailed plan for assessment of the proposed course that includes the following elements:
- A. Student learning outcomes for this course that are tied to course content and assignments. Key Question: What do you want student to know or be able to do at the end of this course?
- The students should be proficient in the laboratory skills introduced in the course, and understand the relationship of the material to that presented in lecture. As the two 1-credit labs will largely be the same as the 2-credit lab being replaced, the courses will be assessed in the same way as the current course. See below.**
- B. Methods, tools, instruments that will be employed to measure success. Describe methods for measuring inputs and outputs. Key Question: What the indicators of learning and course effectiveness? **Learning and course effectiveness is assessed through notebook inspections, in-class evaluation of lab techniques, product quality, quizzes and post-lab worksheets. Please see attached "List of Skills" for both labs.**
- C. Criteria that will be used to measure accomplishments or outcomes. Key Question: How will we know that we are having a positive impact on our students' learning? **Student's technique and scores will be monitored for improvements and compared with previous classes. This comparison will be used to confirm that the proposed change improves student learning.**
- D. Frequency and schedule of assessment of student learning in this course. **Weekly**
- E. Describe mechanisms that will be in place to ensure continuous improvement of course. **Regular meetings and interactions of the faculty teaching lecture and laboratory for these courses and assessment at our annual retreat.**
- F. Structure and process for administrative and academic oversight of course. **Dept. Chair has access to annual ETS field test data that has a separate Organic Chemistry subject area. In addition, the department submits an annual report and 6-year periodic reviews to our accrediting body, the ACS (American Chemical Society).**
- G. Impact of course on accreditation or certification. **None**
- V. Impact on the budget:
- A. Staffing. Is current staffing sufficient or will new faculty be needed (whether full-time or part-time)? **Current staffing is sufficient. May result in a small decrease in faculty contact hours which would allow Chemistry & Biochemistry to support other efforts in the department and college.**
- B. Library Support. Describe how library support will be affected by this proposal. Include

name of library liaison and date this proposal was discussed with liaison. **N.A.**

- C. Support services. Will the proposed change require additional support services (Media Services audio/visual: typing/secretarial, computer services, computer time)? **No**
- D. New equipment. Does the proposed change presuppose the purchase of new equipment or software, whether for support or instruction? **No**
- E. Is a student fee requested? If yes, provide justification and basis for amount. **Same as for all lab courses in the Natural Sciences.**
- F. Additional physical space. Does the proposed change require additional physical space (for classes or labs) or modifications of existing physical plant space? **No**
- G. Impact on other departments. How will the proposed change impact the staffing, equipment, and service budgets of other departments? **N.A.**

Degree Program Course List (DPCL) of major requirements for students entering Loyola in 2017-18

NAME: _____ B.S. BIOCHEMISTRY - CHEB (Pre-Health) (CIP 26.0202) DATE: _____

English Composition Placement is: ACT ENGL score 21 or above SAT Verbal score 501 or above Register for ENGL-T122 _____ ACT ENGL score 20 or below SAT Verbal score 500 or below Register for ENGL-A100 _____	ALEKS MATH COURSE PLACEMENT 76-100, MathA257, Calculus I _____ 46-75, MathA118, Pre-Calculus _____ 0-45, MathA092, Fundamentals of Algebra _____ (not counted in final degree credits)	MAJOR..... ³⁹ 40 Crs General Chem I A105 _____ 3 General Chem I - Lab A107 _____ 1 General Chem II A106 _____ 3 General Chem II - Lab A108 _____ 1 Organic Chem I A300 _____ 3 Organic Chem I - Lab A302 or A305 ^{A310} _____ ² 1 Organic Chem II A301 _____ 3 Synthesis & Characterization A314 _____ 2 Inorganic Chem I A350 _____ 3 Physical Chem I A306 _____ 3 Integrated Chem Lab I A320 _____ 3 Biochemistry I A400 _____ 3 Biochemistry I - Lab A402 _____ 1 Biochemistry II A401 _____ 3 Capstone Presentation A493 _____ 1 5 Crs. Chem Electives, A300-400 Crs Grade	ADJUNCT.....20 Crs Sci II: PhysA102/A104 (Electromag & Relativity/Lab) _____ 4+1 Calculus II Math-A258 _____ 4 Biol Elect _____ 4 Biol Elect _____ 4 Sci/Math Elect* _____ 3 *Choose from Math, Phys, Biol, or Geol. GENERAL ELECTIVES..... ¹⁶ 15 Crs _____ 3 _____ 3 _____ 3 _____ 4 3	CHEMISTRY DEPARTMENTAL HONORS Students must: 1) Earn 2.5 Loyola Cum GPA & 3.0 Major GPA, 2) engage in research approved by the dept, & 3) complete 4 credits of CHEM-A498 or the equivalent. ETS EXAM All majors must take the ETS CHEM field exam, CHEM-A491, (Pass/Fail) & complete an exit survey in last semester prior to graduation. CHEM-A491 _____ 0 Loyola Core.....42 crs Language.....3 crs Major.....40 crs Adjunct.....20 crs General Elective.....15 crs Total.....120 crs Loyola Core requirements are governed by the catalog year that a student is admitted. GPA: Must achieve 2.0 in Major, Minor (if declared), and Loyola cumulative. Courses used in the major cannot also be used to satisfy requirements for a minor: Non-major courses WILL be applied to minors as appropriate.
LOYOLA CORE - 42 Credits				
FOUNDATION COURSES	Crs/Grade			
First-Year Seminar T121 _____	3			
Engl T122: Critical Reading and Writing _____	3			
Math A257: Calculus I _____	4			
Sci I: Phys-A101/A103 (Intro Mechanics/Lab) _____	4/1			
	15			
KNOWLEDGE-VALUE COURSES				
Creative Arts and Cultures _____	3			
Hist I: T122/Emerging World <i>or</i> T124/Modern* _____	3			
<i>*Choice determines Hist II course below.</i>				
Hist II: _____	3			
<i>*If T122 taken above, take HIST-Q###; if T124 above, take HIST-P###</i>				
Phil I: Reasoning _____	3			
Phil II: Knowledge & Morality _____	3			
Rels I: Christian Theology _____	3			
Rels II: World Religions _____	3			
Sci II: (Fulfilled in Adjuncts) _____	0			
Social Science _____	3			
Writing About Literature _____	3			
	27			
LANGUAGE OR COMPUTER PROGRAMMING.....3 Crs				
A) Choice of either spoken or classical language at the A101 level. Language above A101 not required for Chemistry Majors. If place at A100 level, take A100 & A101. A100 credits will count in General Elective.				
Placement _____/LANG A101 _____	3			
B) Intro to Programming I & II: COSC A211 is the prerequisite for COSC A212. Credits for COSC A211 will count in General Elective.				
COSC A211 (check-off <input type="checkbox"/>) & COSC A212 _____	3			

Degree Program Course List (DPCL) of major requirements for students entering Loyola in 2017-18

NAME: _____ B.S. CHEMISTRY - CHEM (ACS Certified) (CIP 40.0501) DATE: _____

English Composition Placement is: ACT ENGL score 21 or above SAT Verbal score 501 or above Register for ENGL-T122 _____ ACT ENGL score 20 or below SAT Verbal score 500 or below Register for ENGL-A100 _____	ALEKS MATH COURSE PLACEMENT 76-100, MathA257, Calculus I _____ 46-75, MathA118, Pre-Calculus _____ 0-45, MathA092, Fundamentals of Algebra _____ (not counted in final degree credits)	MAJOR.....44.....45 Crs General Chem I & Lab A105 & A107.....3+1_____ General Chem II & Lab A106 & A108.....3+1_____ Organic Chem I A300.....3_____ Organic Chem I - Lab A302 or A305 A310.....2 1 Organic Chem II + Synth. & Characterization A301 & A314.....3+2_____ Inorganic Chem I A350.....3_____ Physical Chem I A306.....3_____ Physical Chem II A307.....3_____ Physical Chemistry Lab I A308.....1_____ Physical Chemistry Lab II A309.....1_____ Integrated Chem Lab I A320.....3_____ Biochemistry I A400.....3_____ Instrumental Analysis A410.....4_____ Capstone Presentation A493.....1	ADJUNCT.....15 Crs Sci II: PhysA102/A104 (Electromag & Relativity/Lab.....4+1_____ Calculus II Math-A258.....4_____ Math Elect*.....3_____ Sci/Math Elect**.....3_____ *Choose from Math-A200 or A310 **Choose from Math, Phys, Biol, or Geol. GENERAL ELECTIVES.....16.....15 Crs3_____3_____3_____4 3	CHEMISTRY DEPARTMENTAL HONORS Students must: 1) Earn 2.5 Loyola Cum GPA & 3.0 Major GPA, 2) engage in research approved by the dept, & 3) complete 4 credits of CHEM-A498 or the equivalent. ETS EXAM All majors must take the ETS CHEM field exam, CHEM-A491, (Pass/Fail) & complete an exit survey in last semester prior to graduation. CHEM-A491.....0
LOYOLA CORE - 42 Credits				Loyola Core.....42 crs
FOUNDATION COURSES	Crs/Grade			Language.....3 crs
First-Year Seminar T121.....	3			Major.....45 crs
Engl T122: Critical Reading and Writing.....	3			Adjunct.....15 crs
Math A257: Calculus I.....	4			General Elective.....15 crs
Sci I: Phys-A101/A103 (Intro Mechanics/Lab).....	4/1			Total.....120 crs
	15			Loyola Core requirements are governed by the catalog year that a student is admitted.
KNOWLEDGE-VALUE COURSES				GPA: Must achieve 2.0 in Major, Minor (if declared), and Loyola cumulative.
Creative Arts and Cultures.....	3			Courses used in the major cannot also be used to satisfy requirements for a minor: Non- major courses WILL be applied to minors as appropriate.
Hist I: T122/Emerging World or T124/Modern*.....	3			
*Choice determines Hist II course below.				
Hist II:.....	3			
*If T122 taken above, take HIST-Q###; if T124 above, take HIST-P###				
Phil I: Reasoning.....	3			
Phil II: Knowledge & Morality.....	3			
Rels I: Christian Theology.....	3			
Rels II: World Religions.....	3			
Sci II: (Fulfilled in Adjuncts).....	0			
Social Science.....	3			
Writing About Literature.....	3			
	27			
LANGUAGE OR COMPUTER PROGRAMMING.....3 Crs		5 Crs. Chem Electives, A400-499	Crs Grade	
A) Choice of either spoken or classical language at the A101 level. Language above A101 not required for Chemistry Majors. If place at A100 level, take A100 & A101. A100 credits will count in General Elective.				
Placement _____/LANG A101.....	3			
B) Intro to Programming I & II: COSC A211 is the prerequisite for COSC A212. Credits for COSC A211 will count in General Elective.				
COSC A211 (check-off <input type="checkbox"/>) & COSC A212.....	3	Restricted to a maximum of 3 credits of CHEM- A486 and/or A498		

Degree Program Course List (DPCL) of major requirements for students entering Loyola in 2017-18

NAME: _____ B.S. CHEMISTRY (Liberal Arts) - CHET (Teacher Education) (CIP 40.0501) DATE: _____

English Composition Placement is: ACT ENGL score 21 or above SAT Verbal score 501 or above Register for ENGL-T122 _____ ACT ENGL score 20 or below SAT Verbal score 500 or below Register for ENGL-A100 _____	ALEKS MATH COURSE PLACEMENT 76-100, MathA257, Calculus I _____ 46-75, MathA118, Pre-Calculus _____ 0-45, MathA092, Fundamentals of Algebra _____ (not counted in final degree credits)	MAJOR..... 30 31 Crs General Chem I - Lec A105 _____ 3 General Chem I - Lab A107 _____ 1 General Chem II - Lec A106 _____ 3 General Chem II - Lab A108 _____ 1 Organic Chem I - Lec A300 _____ 3 Organic Chem I - Lab A302 or A305 A310 _____ 2 1 Organic Chem II - Lec A301 _____ 3 Synthesis & Characterization A314 _____ 2 Inorganic Chem I - Lec A350 _____ 3 Oral Presentation A493 _____ 1 9 Crs. Chem Electives, A300-400 Crs Grade	TEACHER EDUCATION.....30 Crs Multicultural Education Teac-A100 (See Loyola Core) _____ 0 Educational Psychology Psyc-A250 _____ 3 Adolescent Psychology Psyc-A255 _____ 3 Reading in the Content Area Teac-A310 _____ 3 The Learner with Special Needs Teac-A210 _____ 3 Classroom Management/Organization Teac-A343 _____ 3 Secondary Methods I (General Pedagogy) Teac-A300 _____ 3 Secondary Methods II (Pedagogy to Specific Field) Teac-A304 _____ 3 Student Teaching Teac-A410 _____ 9 GENERAL ELECTIVES..... 6.5 Crs _____ 3 3 2	ADJUNCT.....9 Crs Sci II: PhysA102/A104 (Electromag & Relativity/Lab) _____ 4+1 Calculus II Math-A258 _____ 4 CHEMISTRY DEPARTMENTAL HONORS Students must: 1) Earn 2.5 Loyola Cum GPA and 3.0 Major GPA, 2) engage in research approved by the dept, & 3) complete 4 credits of CHEM-A498 or the equivalent. ETS EXAM All majors must take the ETS CHEM field exam, CHEM-A491, (Pass/Fail) & complete an exit survey in last semester prior to graduation. CHEM-A491 _____ 0 Loyola Core.....42 crs Language.....3 crs Major.....31 crs Teacher Education.....30 crs General Elective.....5 crs Adjunct.....9 crs Total.....120 crs GPA: Must achieve 2.0 in Major, Minor (if declared), & Loyola cumulative. Loyola Core requirements are governed by the catalog year that a student is admitted. See Bulletin for add'l details. Courses used in the major cannot also be used to satisfy requirements for a minor: Non-major courses WILL be applied to minors as appropriate.
LOYOLA CORE - 42 Credits				
FOUNDATION COURSES	Crs/Grade			
First-Year Seminar T121 _____	3 _____			
Engl T122: Critical Reading and Writing _____	3 _____			
Math A257: Calculus I _____	4 _____			
Sci I: Phys-A101/A103 (Intro Mechanics/Lab) _____	4/1 _____			
	15			
KNOWLEDGE-VALUE COURSES				
Creative Arts and Cultures _____	3 _____			
Hist I: T122/Emerging World <i>or</i> T124/Modern* _____	3 _____			
<i>*Choice determines Hist II course below</i>				
Hist II: _____	3 _____			
<i>*If T122 taken above, take HIST-Q###; if T124 above, take HIST-P###</i>				
Phil I: Reasoning _____	3 _____			
Phil II: Knowledge & Morality _____	3 _____			
Rels I: Christian Theology _____	3 _____			
Rels II: World Religions _____	3 _____			
Sci II: (Fulfilled in Adjuncts) _____	0 _____			
Social Science <u>TEACA100</u> _____	3 _____			
Writing About Literature _____	3 _____			
	27			
LANGUAGE OR COMPUTER PROGRAMMING3 Crs				
Spoken modern foreign language at placement level of A100 or A101 OR Classical Greek/Latin A100 or A101 (language above the A101 level not required) OR Intro to Programming I or II (COSC-A211 or COSC-A212). Language Placement _____				
	3 _____			
		Max 3 crs A486 and/or A498 allowed.		

Degree Program Course List (DPCL) of major requirements for students entering Loyola or transferring into the major in 2017-18

NAME: _____ B.S. CHEMISTRY, FORENSIC SCIENCE - CHFS (CIP 40.0510) DATE: _____

English Composition Placement is: ACT ENGL score 21 or above SAT Verbal score 501 or above Register for ENGL-T122 _____ ACT ENGL score 20 or below SAT Verbal score 500 or below Register for ENGL-A100 _____	ALEKS MATH COURSE PLACEMENT 76-100, MathA257, Calculus I _____ 46-75, MathA118, Pre-Calculus _____ 0-45, MathA092, Fundamentals of Algebra _____ (not counted in final degree credits)	MAJOR..... 36 37 Crs General Chem I A105 _____ 3 General Chem I - Lab A107 _____ 1 General Chem II A106 _____ 3 General Chem II - Lab A108 _____ 1 Organic Chem I A300 _____ 3 Organic Chem I - Lab A302 or A305 A310 1 2 Organic Chem II A301 _____ 3 Synthesis & Characterization A314 _____ 2 Integrated Chem Lab I A320 _____ 3 Intro to Forensic Methods A315 _____ 3 Biochemistry I A400 _____ 3 Techniques in Biochemistry A402 _____ 1 Instrumental Analysis A410 _____ 4 Chemistry Seminar For Majors A486 _____ 1 Internship / Research A497 or A498 _____ 3 Capstone Presentation A493 _____ 1 GPA: Must achieve 2.0 in Major, Minor if declared), & Loyola cumulative. Loyola Core reqs are governed by the catalog year that a student is admitted.	ADJUNCT.....19 Crs Sci II: Phys-A102/A104 (Elec & Rel/Lab) _____ 4+1 Calculus II, MathA258 _____ 4 Math-A260 or Crim-A260 _____ 3 Cells & Heredity: Biol-A106/A107 _____ 3+1 Criminalistic II: Crime Lab Frsc-A201 _____ 3 GENERAL ELECTIVES.....6-7.....5-6 Crs _____ _____ _____ _____ CHEMISTRY DEPARTMENTAL HONORS Students must: 1) Earn 2.5 Loyola Cum GPA and 3.0 Major GPA, 2) engage in research approved by dept, & 3) complete 4 crs CHEM-A498 or the equivalent. ETS EXAM: All majors must take the ETS CHEM field exam, CHEM-A491, (Pass/Fail) & complete an exit survey in last semester prior to graduation. CHEM-A491 _____ 0 Courses used in major cannot also be used for reqs in a minor: Non-major courses WILL be applied to minors as appropriate. Loyola Core.....42 crs Language.....3 crs Major.....37 crs Adjunct.....19 crs General Elective.....5-6 crs Concentration I, II, or III.....13-14 crs Total.....120 crs	CONCENTRATION OPTIONS, 13-14 Crs I: Instrumental Analysis (INST) Physical Chemistry I A306 _____ 3 Physical Chemistry II A307 _____ 3 Physical Chem Labs I & II A308 & A309 _____ 1+1 Choose two (2) from the following: Math: A200, A310, A320, A375 _____ 3 _____ 3 14 II: Biochemistry & Genetics (GENE) Biol of Organisms Biol-A108 - Lec _____ 3 Biol-A109 - Lab _____ 1 Molecular Genetics Biol-A326 - Lec _____ 3 Biol-A327 - Lab _____ 1 Genetic Analysis Biol-A328 - Lec _____ 3 Biochemistry II Chem-A401 - Lec _____ 3 14 III: Human Mind & Behavior (MIND) Intro to Psychology Psyc-A100 _____ 3 Developmental Psychology Psyc-A230 _____ 3 Take two (2) from the following for 7 crs total (must include a PSYC lec/lab combo) PSYC: A315/316, A322/A323, A415 SOC: A215, or FRSC: A301, A370 _____ 3/1 _____ 3 13
LOYOLA CORE - 42 Credits				
FOUNDATION COURSES Crs/Grade				
First-Year Seminar T121 _____ 3				
Engl T122: Critical Reading and Writing _____ 3				
Math A257: Calculus I _____ 4				
Sci I: Phys-A101/A103 (Intro Mechanics/Lab) _____ 4/1				
			15	
KNOWLEDGE-VALUE COURSES				
Creative Arts and Cultures _____ 3				
Hist I: T122/Emerging World <i>or</i> T124/Modern* _____ 3				
<i>*Choice determines Hist II course below</i>				
Hist II: _____ 3				
<i>*If T122 taken above, take HIST-Q###; if T124 above, take HIST-P###</i>				
Phil I: Reasoning _____ 3				
Phil II: Knowledge & Morality _____ 3				
Rels I: Christian Theology _____ 3				
Rels II: World Religions _____ 3				
Sci II: (Fulfilled in Adjuncts) _____ 0				
Social Science _____ 3				
Writing About Literature _____ 3				
			27	
LANGUAGE OR COMPUTER PROGRAMMING.....3 Crs				
A) Choice of either spoken or classical language at the A101 level. Language above A101 not required for Chemistry Majors. If place at A100 level, take A100 & A101. A100 credits will count in General Elective.				
Placement _____/LANG A101 _____ 3				
B) Intro to Programming I & II: COSC A211 is the prerequisite for COSC A212. Credits for COSC A211 will count in General Elective.				
COSC A211 (check-off <input type="checkbox"/>) & COSC A212 _____ 3				

MINOR TRACKING SHEET:

Courses used in the Major cannot be used to satisfy courses in the Minor. Plan to take the below classes as part of (or in addition to) your General Elective allowance, because GE courses can be used in both areas.

Forensic Chemistry (CHFS).....~~21~~.....~~22~~ crs

General Chem I

A105 (Lec) _____ 3 _____

A107 (Lab) _____ 1 _____

General Chem II

A106 (Lec) _____ 3 _____

A108 (Lab) _____ 1 _____

Organic I

A300 (Lec) _____ 3 _____

~~A305~~ (Lab) **A310** _____ ~~2~~ **1** _____

Organic II

A301 (Lec) _____ 3 _____

ChemA315 _____ 3 _____

ChemA497 _____ 3 _____

Cannot use Chem-A486 for credit

2.0 GPA required

Advisor: Department Chair

2017-2018

MINOR TRACKING SHEET:

Courses used in the Major cannot be used to satisfy courses in the Minor. Plan to take the below classes as part of (or in addition to) your General Elective allowance, because GE courses can be used in both areas.

Chemistry (CHMM).....~~22~~²¹ crs

General Chem I

A105 (Lec) _____ 3 _____

A107 (Lab) _____ 1 _____

General Chem II

A106 (Lec) _____ 3 _____

A108 (Lab) _____ 1 _____

Organic I

A300 (Lec) _____ 3 _____

~~A305 (Lab) _____ 1 _____~~
A310 _____ 1 _____

Organic II

A301 (Lec) _____ 3 _____

Chem Elective

A300-A400 _____ 3 _____

Chem Elective

A300-A400 _____ 3 _____

Cannot use Chem-A486 for credit

2.0 GPA required

Advisor: Department Chair

2017-2018



DEPARTMENT OF BIOLOGICAL SCIENCES

To: Dr, William Walkenhorst, Chair of Chemistry & Biochemistry

From: Dr. Don Hauber, Chair

A handwritten signature in black ink, appearing to read "DHA", is written over the "From:" line.

Date: February 1, 2017

Subj.: Support for Organic lab change

The Department of Biological Sciences is in unanimous support of the proposal by the Department of Chemistry & Biochemistry to discontinue CHEM A305 Organic Lab (2 cr) and create two 1-credit labs, Organic I lab and Organic II lab that will be linked to Organic Chemistry I (CHEM A300) and Organic Chemistry II (CHEM A301) respectively. This makes better pedagogical sense and will be more flexible for our majors in completing their Organic Chemistry requirement. We appreciate the Chemistry department's effort to institute this change.



ENVIRONMENT

To: Dr. Uriel Quesada, Associate Dean
College of Arts & Sciences Curriculum Committee

From: Dr. Craig S. Hood, Director Environment Program

Date: February 10, 2017

Subject: Letter of Support of Organic Chemistry Lab revision

I write, on behalf of the Environment Program, in support of the Department of Chemistry and Biochemistry's proposal to replace the current CHEM A305 Organic Chem Lab (which is 2 credits) with two 1-credit Organic Chemistry labs (an Organic Chem Lab 1 and Organic Chem Lab 2) that would be associated with Organic Chemistry I (CHEM A300) and Organic Chemistry 2 (CHEM A301).

Our Environmental Science (Biol conc. and Teaching Certification) students will be better served and their scheduling will be better accomplished with this change. This change also helps support health-professional students, in general. We have several Environmental Science majors who are currently pursuing health professional careers by taking all required/recommended health professional courses, thus this change supports them, as well.



LOYOLA
UNIVERSITY
NEW ORLEANS

DEPARTMENT OF PSYCHOLOGICAL SCIENCES

To: Dr. William Walkenhorst, Chair of Chemistry & Biochemistry

From: Dr. Erin Dupuis, Chair of Psychological Sciences

Date: February 7, 2017

Re: Support for Organic lab change

The Department of Psychological Sciences supports the proposal by the Department of Chemistry & Biochemistry to discontinue CHEM A305 Organic Lab (2 cr) and create two 1-credit labs, Organic I lab and Organic II lab that will be linked to Organic Chemistry I (CHEM A300) and Organic Chemistry II (CHEM A301) respectively. This will be more flexible for our pre-health majors in completing their Organic Chemistry requirement.

Degree Program Course List (DPCL) of major requirements for students entering Loyola in 2017-18

DRAFT

NAME: _____

**B.S. BIOLOGICAL SCIENCES - BIOT
TEACHER EDUCATION (CIP 26.0101)**

DATE: _____

English Composition Placement is: ACT ENGL score 21 or above SAT Verbal score 501 or above Register for ENGL-T122 _____ ACT ENGL score 20 or below SAT Verbal score 500 or below Register for ENGL-A100 _____	ALEKS MATH COURSE PLACEMENT 76-100, MathA257, Calculus I _____ 46-75, MathA118, Pre-Calculus _____ 0-45, MathA092, Fundamentals of Algebra _____ <i>(not counted in final degree credits)</i>	MAJOR.....31 Crs BioInquiry A101 _____ 3 Cells & Heredity - Lec A106 _____ 3 Cells & Heredity - Lab A107 _____ 1 Biology of Organisms - Lec A108 _____ 3 Biology of Organisms - Lab A109 _____ 1 Ecology & Evolution - Lec A208 _____ 3 ETS Exam/ Exit Interview (P/F) A491 _____ 0 14 Crs	ADJUNCT.....23 Crs Sci II: Chem A106/A108 (Gen Chem II & Lab) _____ 3/1 Organic Chem I - Lec Chem-A300 _____ 3 Organic Chem I - Lab Chem-A310 _____ 1 Organic Chem II - Lec Chem-A301 _____ 3 Organic Chem II - Lab Chem-A311 _____ 1 Math-A260 _____ 3 Phys-A115 _____ 3 Phys-A112 _____ 1 Phys-A116 _____ 3 Phys-A113 _____ 1	TEACHER EDUCATION.....30 Crs Multicultural Education Teac-A100 (See Loyola Core) _____ 0 Educational Psychology Psyc-A250 _____ 3 Adolescent Psychology Psyc-A255 _____ 3 Reading in the Content Area Teac-A310 _____ 3 The Learner with Special Needs Teac-A210 _____ 3 Classroom Management/Organization Teac-A343 _____ 3 Secondary Methods I (General Pedagogy) Teac-A300 _____ 3 Secondary Methods II (Pedagogy to Specific Field) Teac-A304 _____ 3 Student Teaching Teac-A410 _____ 9
LOYOLA CORE - 41 Credits		ADVANCED BIOLOGY ELECTIVES, 17 Crs		
FOUNDATION COURSES		Course-code	Lec/Lab	Crs
First-Year Seminar T121 _____ 3				
Engl T122: Critical Reading and Writing _____ 3				
Math A257: Calculus I _____ 4				
Sci I: Chem A105/A107 (General Chem I / Lab) _____ 3/1				
				14
KNOWLEDGE-VALUE COURSES				
Creative Arts and Cultures _____ 3				
Hist I: T122/Emerging World or T124/Modern* _____ 3				
<i>Choice determines Hist II course below. Choose opposite periods.</i>				
Hist II _____ 3				
<i>*If T122 taken above, take HIST-Q###; if T124 above, take HIST-P###</i>				
Phil I: Reasoning _____ 3				
Phil II: Knowledge & Morality _____ 3				
Rels I: Christian Theology _____ 3				
Rels II: World Religions _____ 3				
Sci II: (Fulfilled in Adjuncts) _____ 0				
Social Science <u>TEACA100</u> _____ 3				
Writing About Literature (WAL) _____ 3				
				27
Must complete at least 5 labs in Biology				
<i>TEAC candidates need 2 "ENGL" classes: Check WAL & Arts offerings</i>		Advanced Biology Electives must be BIOLA300 or higher; must total 17 credits (6 credits of which may include BIOL A400+A401+A402)		
All majors must take the ETS Biology field exam and participate in an exit interview prior to graduation, typically during the last semester in school.		Loyola Core requirements are governed by the catalog year that a student is admitted.		
Courses used in the major cannot also be used to satisfy requirements for a minor: Non-major courses will be applied to minors as appropriate.		GPA: Must achieve 2.0 in Major, Minor (if declared), and Loyola cumulative.		
				Loyola Core.....41 crs
				Major.....31 crs
				Adjunct.....23 crs
				General Elective.....0 crs
				Teacher Education.....30 crs
				Total.....125 crs

Degree Program Course List (DPCL) of major requirements for students entering Loyola in 2017-18

NAME:

B.S. BIOPHYSICS PRE-HEALTH - PBPH

DATE:

English Composition Placement is:		ALEKS MATH COURSE PLACEMENT	MAJOR.....35 Crs	ADJUNCT.....36 Crs	NOTES:
ACT ENGL score 21 or above	_____	76-100, MathA257, Calculus I	Intro to Physics and Engineering	Into Linear Algebra	Courses used in the major cannot also be used to satisfy requirements for a minor. Non-major courses WILL be applied to minors as appropriate.
SAT Verbal score 501 or above	_____	_____	A120 _____ 1 _____	Math-A200 _____ 3 _____	
Register for ENGL-T122	_____	46-75, MathA118, Pre-Calculus	Intro Mechanics	Calculus II	GPA: Must achieve 2.0 in Major, Minor (if declared), and Loyola cumulative.
ACT ENGL score 20 or below	_____	_____	A101 _____ 4 _____	Math-A258 _____ 4 _____	
SAT Verbal score 500 or below	_____	0-45, MathA092, Fundamentals of Algebra	Mechanics Lab	Calculus III	Loyola Core requirements are governed by the catalog year that a student is admitted.
Register for ENGL-A100	_____	_____ (not counted in final degree credits)	A103 _____ 1 _____	Math-A259 _____ 3 _____	
LOYOLA CORE - 41 Credits			Intro EM & Relativity	Intro Differential Equations	Loyola Core requirements are governed by the catalog year that a student is admitted.
			A102 _____ 4 _____	Math-A310 _____ 3 _____	
FOUNDATION COURSES			EM Lab	Cells & Heredity:	Loyola Core requirements are governed by the catalog year that a student is admitted.
			A104 _____ 1 _____	Biol-A106 - Lec _____ 3 _____	
First-Year Seminar T121	_____ 3 _____		Intro Waves and Quant.	Biol-A107 - Lab _____ 1 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
Engl T122: Critical Reading and Writing	_____ 3 _____		A240 _____ 4 _____	Biol of Organisms:	
Math A257: Calculus I	_____ 4 _____		Intro Thermal Physics	Biol-A108 - Lec _____ 3 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
Sci I: Chem-A105/A107, General Chemistry I/Lab	_____ 3+1 4 _____		A241 _____ 3 _____	Biol-A109 - Lab _____ 1 _____	
			Classical Mechanics	General Chemistry II:	Loyola Core requirements are governed by the catalog year that a student is admitted.
			A340 _____ 4 _____	Chem-A106 - Lec _____ 3 _____	
KNOWLEDGE/VALUES COURSES			Choose one:	Chem-A108 - Lab _____ 1 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
Creative Arts and Cultures	_____ 3 _____		Electricity and Magnetism -A350 or Quantum Mechanics - A450	Organic Chem I - Lec	
Hist I: T122/Emerging World or T124/Modern*	_____ 3 _____		_____ 4 _____	Chem-A300 _____ 3 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
*Choice determines Hist II course below				Organic Chem I - Lab	
Hist II:	_____ 3 _____		Adv. Laboratory Physics	Chem-A310 _____ 1 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
*If T122 taken above, take HIST Q###; if T124 taken above, take HIST P###			A445 _____ 3 _____	Organic Chem II - Lec	
Phil I: Reasoning	_____ 3 _____		Choose two:	Chem-A301 _____ 3 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
Phil II: Knowledge and Morality	_____ 3 _____		Cellular Biophysics - A436	Organic Chem II - Lab	
Rels I: Christian Theology (any S# course)	_____ 3 _____		Biomechanics and Neural Control - A365	Chem-A311 _____ 1 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
Rels II: World Religions (any V# course)	_____ 3 _____		Intro Neural Networks and Applications - A437	Additional Advanced BIOL, CHEM, or PHYS elective approved by advisor	
Social Science	_____ 3 _____		_____ 3 _____	_____ 3 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
Sci II: Chem-A106/108 (fulfilled in adjunct)	_____ 0 _____		_____ 3 _____	_____ 3 _____	
Writing About Literature	_____ 3 _____		Loyola Core.....41 crs	GENERAL ELECTIVE.....8 Crs	Loyola Core requirements are governed by the catalog year that a student is admitted.
	_____ 27 _____		Major.....35 crs	_____ 3 _____	
			Adjunct.....36 crs	_____ 3 _____	Loyola Core requirements are governed by the catalog year that a student is admitted.
			General Elective.....8 crs	_____ 3 _____	
			Total.....120 crs	_____ 2 _____	

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