Request for CHANGING an Existing Course

Department: Biological Sciences  
Course Title: General Biochemistry II  
Course Number: BIOL 4094  
Date: September 5, 2017  

PRESENT COURSE DESCRIPTION

<table>
<thead>
<tr>
<th>Title</th>
<th>General Biochemistry II</th>
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<td>Semester Hours of Credit</td>
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<td>Lab/Sem/Rec:</td>
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<td>Graduate Credit?</td>
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<td>Contact Hours Per Week:</td>
<td>(Indicate hours in appropriate course type.)</td>
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<td>Grading System:</td>
<td>Letter Grade X  Pass/Fail</td>
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<tr>
<td>Course Description:</td>
<td>(Include course number, title, etc., exactly as it appears in the General Catalog)</td>
</tr>
</tbody>
</table>

[LCCN: CBIO 4413, Biochemistry II (upper level)] Prereq: BIOL 4093. Credit will not be given for BIOL 2083, BIOL 4087. Metabolic pathways, nucleic acid structure; flow of genetic information; regulation of gene expression; recombinant DNA.

PROPOSED COURSE DESCRIPTION

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<thead>
<tr>
<th>Title</th>
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<tbody>
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</table>

[LCCN: CBIO 4413, Biochemistry II (upper level)] Prereq: "C" or better in BIOL 4093. Credit will not be given for this course and BIOL 2083 or BIOL 4087. Metabolic pathways, nucleic acid structure; flow of genetic information; regulation of gene expression; recombinant DNA.

THESE QUESTIONS MUST BE ANSWERED COMPLETELY AND ACCURATELY OR PROPOSAL WILL BE RETURNED:

Has this change been discussed with and approved by all departments/colleges affected? Yes, X No, N/A

Is this course included in any curricula, concentrations, or minors? Yes, X No. If yes, please list on a separate sheet.

Is this course a prerequisite or corequisite for other courses? Yes, X No. If yes, list courses; use separate sheet.

Is this course on the General Education list? Yes, X No.

JUSTIFICATION/EXPLANATION: Use separate sheet.

Note: IF COURSE IS OR WILL BE CROSS-LISTED, SEPARATE FORMS MUST BE SUBMITTED BY EACH DEPARTMENT.

APPROVALS

Department Faculty Approval Date: 10/9/17

College Faculty Approval Date: 10/12/17

College Dean Signature: 11/10/17

Chair, FSC Committee: 11/10/17

Academic Affairs Approval: 12/18/17
Additional Information for Request for Changing an Existing Course-BIOL 4094 General Biochemistry II

"Is this course included in any curricula, concentrations, or minors? Yes X No. If yes, please list on a separate sheet."

BIOL 4094 is a required course for the Biochemistry BS degree. It is also part of a required option (i.e., BIOL 4087 or BIOL 4093 and BIOL 4094) for the BS degrees in Microbiology and Biological Sciences (no concentration, marine biology concentration, secondary education concentration).

JUSTIFICATION/EXPLANATION:

Our faculty who teach BIOL 4093 and BIOL 4094 tracked students who earned a "D" in BIOL 4093 and then proceeded to take BIOL 4094 prior to retaking BIOL 4093. Every student in this group earned a "D" or "F" or withdrew from BIOL 4094. These results support the view that students must acquire a satisfactory understanding of the material covered in BIOL 4093 before proceeding to BIOL 4094. This includes, for example, learning the structure and function of various macromolecules (proteins, carbohydrates, lipids, nucleic acids, etc.) in BIOL 4093 before exploring their roles in complex metabolic pathways in BIOL 4094.

With this in mind, we are requesting that the prerequisite for BIOL 4094 be changed from "BIOL 4093" to "C or better in BIOL 4093". It is noteworthy here that BIOL 4093 has traditionally been taught only in the Fall semester and BIOL 4094 only in the Spring. However, beginning in the Spring 2018 semester, BIOL 4093 and BIOL 4094 will both be offered and they will be dually offered from that point on every Fall and Spring semester. This schedule will facilitate the retaking of BIOL 4093 (or BIOL 4094), as necessary.
Request for **CHANGING** an Existing Course

**PRESENT COURSE DESCRIPTION**

<table>
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<th>Title</th>
<th>Research Internships</th>
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<td>Grading System</td>
<td>Letter Grade</td>
</tr>
<tr>
<td>Course Description</td>
<td>(Include course number, SSF, etc. exactly as it appears in the General Catalog)</td>
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</tbody>
</table>

**CHEM 2900 Research Internship (1-2)**
Prereq.: CHEM 1201 or CHEM 1431. Pass-fail grading. May be taken 6 times for credit; no more than 8 sem. hours of credit may be earned in CHEM 2900 and CHEM 3900. May be selected on recommendation of professor directing the work. Introduction to chemical research by association with departmental research groups.

**PROPOSED COURSE DESCRIPTION**

<table>
<thead>
<tr>
<th>Title</th>
<th>Introduction to Research in Chemistry</th>
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<tbody>
<tr>
<td>Short Title</td>
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<td>Course Description</td>
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</tbody>
</table>

**CHEM 2900 Introduction to Research in Chemistry (1-2)**
Prereq.: CHEM 1201 or CHEM 1421. Pass-fail grading. May be taken 6 times for credit; no more than 8 sem. hours of credit may be earned in CHEM 2900 and CHEM 3900. By Permission of the Department. Introduction to chemical research.

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**THESE QUESTIONS MUST BE ANSWERED COMPLETELY AND ACCURATELY OR PROPOSAL WILL BE RETURNED.**

1. Has this change been discussed with and approved by all departments/colleges affected? Yes  No  X
2. Is this course included in any curricula, concentrations, or minors? Yes  No  X
3. Is this course a prerequisite or corequisite for other courses? Yes  No  X
4. Is this course on the General Education list? Yes  No  X

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**JUSTIFICATION/EXPLANATION:** Use separate sheet.

Note: IF COURSE IS OR WILL BE CROSS-LISTED, SEPARATE FORMS MUST BE SUBMITTED BY EACH DEPARTMENT.

**APPROVALS**

Department Faculty Approval Date: Nov. 1, 2017

Graduate Dean Signature: (date)

---

Erin Doherty edohertyl@lsu.edu

College Contact E-mail:

Academic Affairs Approval Date: (date)
Justification:

The Chemistry Department wants to change the title and course description to clear up any misconceptions about the course, problems with the prerequisite, and to clarify that this is a Permission of Department course for correct listing in the mainframe.

The use of "Internship" in the title for this course is misleading; as is its classification as Clinical/Practicum in the mainframe. It is not an internship, it is the introduction to chemical research for undergraduates done in our department, not with an outside company. Therefore it is renamed as "Introduction to Research in Chemistry" and in the mainframe, the course will be re-classified as Research, rather than Clinical/Practicum.

The prerequisites listed had a typographical error. We are correcting the prerequisites to be CHEM 1201 and its honors equivalent, CHEM 1421. (Previously it listed CHEM 1431 – which is the Honors General Chemistry Laboratory, instead of CHEM 1421.)

For this course, students must obtain a CHEM 2900 Registration Form from the Undergraduate Chemistry Office. (See attached form.) This form outlines the expectations of the course and requires the student to obtain the written permission of a chemistry research faculty and the title of the research. After obtaining the necessary signatures, the form is returned to the Undergraduate Chemistry Office, which registers the student.

The course coordinator is listed as the Instructor of Record for the course and obtains the grades for the students from the supervising research faculty. The form is kept in the Undergraduate Chemistry for records.
CHEM 2900 Introduction to Research in Chemistry

This course is an introduction to chemical research methods. It is a variable hours course, 1 – 2 credits hours. Since this is a laboratory course, you are expected to spend 3 hours in the lab per week for every credit hour that you are enrolled. Most students will enroll in the course for 2 hours, which corresponds to 6 hours of research per week. You can enroll in additional hours of CHEM 2900 in a following semester as an elective. This will give you more experience in the research lab. You can take the course up to 6 times; however there is a limit of 8 credit hours between CHEM 2900 and CHEM 3900.

**Step 1:** You will have to get a professor’s permission to work in their laboratory on a project. Go the chemistry web page ([http://www.lsu.edu/science/chemistry/](http://www.lsu.edu/science/chemistry/)) and look over the various research projects and find one that interests you. Then schedule an appointment with the professor and discuss the possibility of working under the direction of that professor. Some professors prefer a two-semester commitment.

**Step 2:** After finding a professor, have the professor print and sign the attached form. This is their permission for you to work in their laboratory.

**Step 3:** Bring the signed form to Rachel D’Arensboung in the Undergraduate Chemistry Office in 109 Choppin. Since this course is by permission of department, Rachel D’Arensboung is the only one who can add you into this course. (You are not able to add yourself to this course.)

CHEMISTRY DEPARTMENT STUDENT ENROLLMENT FORM FOR CHEM 2900

Name: ___________________________ Semester: __________ Date: ________

LSU ID#: ________________________ Phone #: ____________________________

Email address: ____________________ Credit Hours:  □ 1   □ 2

Credit in CHEM 1201 or 1421?  □ YES

Tentative Title: _______________________________________________________

Research Instructor’s Printed Name: _________________________________

Research Instructor’s Signature: ______________________________________

Chemistry Major w/ Concentration in

□ Chemistry (Chem)  □ Biological Chemistry (Bchem)
□ Chemical Physics (Chemph)  □ Environmental Chemistry (Envchm)
□ Materials (Chmmat)  □ Polymers (Chmply)
□ Preprofessional (Ppchem)  □ Second Discipline (Chemsd)
□ Secondary Education (Chemse)  □ Other: __________________________
Request for Changing an Existing Course

Department: CHEMISTRY  
Course Number: CHEM 3900  
College: SCIENCE  
Date: Nov. 1, 2017

PRESENT COURSE DESCRIPTION

Title: Chemical Problems
Semester Hours of Credit: 1-3

If combination course type, # hrs. of credit for:
Lecture:   Lab/Sem/Rec:
Repeat Credit Max. (if Repeatable):
May be taken for a max. of 6 sem. hours of credit
Graduate Credit?: Yes No X
Credit will not be given for this course and:
No more than 8 sem. hours of credit earned in CHEM 2900 & 3900

Contact Hours Per Week: (Explain hours in appropriate course type.)
Lecture Lab Seminar Recitation Intern Res/Ind Clin/Pract
Total Weekly Contact Hours: 3 hours per credit hour
Grading System: Letter Grade X Pass/Fail

Course Description:
CHEM 3900 Chemical Problems (1-3) Coreq.: CHEM 3492. A student may not continue in a course if the corequisite course is dropped prior to the last day of that midsemester examination period. May be taken for a max. of 6 sem. hrs. of credit; no more than 8 sem. hours of credit may be earned in CHEM 2900 and CHEM 3900. May be selected on recommendation of professor directing the work and consent of the dean of the college. Written report of research problem is required. Introduction to chemical research methods.

PROPOSED COURSE DESCRIPTION

Title: Research in Chemistry
Short Title: RESEARCH CHEMISTRY
Semester Hours of Credit: 1-3

If combination course type, # hrs. of credit for:
Lecture:   Lab/Sem/Rec:
Repeat Credit Max. (if Repeatable):
May be taken for a max. of 6 sem. hours of credit
Graduate Credit?: Yes X No
Credit will not be given for this course and:
No more than 8 sem. hours of credit earned in CHEM 2900 & 3900

Contact Hours Per Week: (Explain hours in appropriate course type.)
Lecture Lab Seminar Recitation Intern Res/Ind Clin/Pract
Total Weekly Contact Hours: 3 hours per credit hour
Grading System: Letter Grade X Pass/Fail

CHEM 3900 Research in Chemistry (1-3) Coreq.: CHEM 3492. May be taken for a max. of 6 sem. hours of credit; no more than 8 sem. hours of credit may be earned in CHEM 2900 and CHEM 3900. By permission of the Department. Course requires 3 hours of lab work per credit hour. Chemical research under the direction of chemistry faculty mentor. Requires an oral presentation and a report of research work in the form of a scientific paper.

These questions must be answered completely and accurately or proposal will be returned.
Has this change been discussed with and approved by all departments/colleges affected? Yes No N/A X
Is this course included in any curricula, concentrations or minors? Yes X No If yes, please list on a separate sheet
Is this course a prerequisite or corequisite for other courses? Yes No X If yes, list courses; use separate sheet
Is this course on the General Education list? Yes X No

Justification/Explanations: Use separate sheet
Note: If course is or will be cross-listed, separate forms must be submitted by each department

Approvals

Department Faculty Approval Date: Nov. 1, 2017
Department Chair Signature: [Signature] (date)
Graduate Dean Signature: [Signature] (date)
Erin Doherty, edoherty@tsu.edu  
College Contact  
E-mail

College Dean Signature: [Signature] (date)
Chair's C & C Committee: [Signature] (date)
Academic Affairs Approval: [Signature] (date)
Justification:

The Chemistry Department wants to change the title and course description to clear up any misconceptions about the course and clarify the process that this is a Permission of Department course for correct listing in the mainframe. It has always been a Permission of Department course.

No changes in course content is being proposed. We are simply clarifying how the course is currently taught.

We want to clarify to the students and on their transcript, that this is a course giving the student research experience. The title of Chemical Problems for this course does not imply research. The new title for CHEM 3900 is Research in Chemistry. This makes it easier for future graduate schools or future employers to see specifically that the student had research experience from their transcripts.

We also removed the statement "A student may not continue in a course if the corequisite course is dropped prior to the last day of that midsemester examination period." This is not applicable for this course. Also we now specify that the student must give an oral presentation and write a scientific research paper in the course description. This clarifies issues for accreditation by the American Chemical Society on where the department requires various forms of scientific communication.

For this course, students must obtain a CHEM 3900 Registration Form from the Undergraduate Chemistry Office. (See attached form.) This form outlines the expectations of the course and requires the student to obtain the written permission of a chemistry research faculty and the title of the research. After obtaining the necessary signatures, the form is returned to the Undergraduate Chemistry Office, which registers the student.

The course coordinator is listed as the Instructor of Record for the course. The course coordinator obtains the grades for the students from the supervising research faculty and is also the outside reviewer for the oral presentations and scientific research report. A copy of the scientific research report is kept in the Undergraduate Chemistry for records.

Curriculum:

CHEM 3900 is required in the following concentrations of the Chemistry Curriculum.

- Chemistry – Chemistry concentration
- Chemistry – Biological Chemistry concentration
- Chemistry – Chemical Physics concentration
- Chemistry – Environmental Chemistry concentration
- Chemistry – Materials concentration
- Chemistry – Polymers concentration
- Chemistry – Second Discipline concentration
CHEM 3900 Research in Chemistry

This course is where you will engage in chemical research. It is a variable hours course, 1 – 3 credits hours. Since this is a laboratory course, you will be required to spend 3 hours in the lab per week for every hour that you are enrolled. Most students will enroll in the course for 2 hours, the required number of hours for the curriculum for most concentrations, which corresponds to 6 hours of research per week. You can enroll in additional hours of CHEM 3900 in a following semester as an elective. This will give you more experience in the research lab. Credit in CHEM 3900 will not be given if the student receives monetary compensation for the same research activity. This course requires an oral presentation of your research and at the end of the semester, a formal scientific paper on your research.

Step 1: You will have to get a professor’s permission to work in their laboratory on a project. Go the chemistry web page (http://www.lsu.edu/science/chemistry/) and look over the various research projects and find one that interests you. Then schedule an appointment with the professor and discuss the possibility of working under the direction of that professor. Some professors prefer a two-semester commitment.

Step 2: After finding a professor, have the professor print and sign the attached form. This is their permission for you to work in their laboratory.

Step 3: Bring the signed form to Undergraduate Chemistry Office in 109 Choppin. Since this course is by permission of department, this office is the only place that can add you into this course. (You are not able to add yourself to this course.)

CHEMISTRY DEPARTMENT STUDENT ENROLLMENT FORM FOR CHEM 3900

Name: ____________________________ Semester: ___________ Date: __________

LSU ID#: _________________________ Phone #: _____________________________

Email address: _____________________ Credit Hours: □ 1 □ 2 □ 3

Currently enrolled in CHEM 3492? □ YES □ NO If NO, when did you take it? __________

Tentative Title: ___________________________

Research Instructor's Printed Name: ___________________________

Research Instructor's Signature: ___________________________

Chemistry Major w/ Concentration in
☐ Chemistry (Chem) ☐ Biological Chemistry (Bchem)
☐ Chemical Physics (Chemphys) ☐ Environmental Chemistry (Envchem)
☐ Materials (Chmmat) ☐ Polymers (Chmply)
☐ Preprofessional (Ppchem) ☐ Second Discipline (Chemsd)
☐ Secondary Education (Chemse) ☐ Other: ___________________________
**Request for CHANGING an Existing Course**

<table>
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<tr>
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<th>CHEMISTRY</th>
<th>College</th>
<th>SCIENCE</th>
<th>Course Number</th>
<th>CHEM 4561</th>
<th>Date</th>
<th>Nov. 1, 2017</th>
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### Present Course Description

<table>
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<tr>
<th>Title</th>
<th>Intermediate Physical-Organic Chemistry</th>
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</thead>
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**CHEM 4561 Intermediate Physical-Organic Chemistry (3)**

Prereq.: CHEM 2262 or CHEM 2462 and CHEM 3492. Selected topics in kinetics, reaction mechanisms, applications of quantum mechanics to organic chemistry, and related topics in physical-organic chemistry.

### Proposed Course Description

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**CHEM 4561 Physical-Organic Chemistry (3)**

Prereq.: CHEM 2262 or CHEM 2462 and CHEM 3492. Understanding organic reaction mechanisms and kinetics using basic concepts of molecular orbital theory. Related topics include supramolecular chemistry and noncovalent interactions.

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**These questions must be answered completely and accurately or proposal will be returned.**

Has this change been discussed with and approved by all departments/colleges affected? Yes | X | No | No | N/A

Is this course included in any curricula, concentrations, or minors? Yes | X | No | No | If yes, please list on a separate sheet.

Is this course a prerequisite or corequisite for other courses? Yes | No | X | If yes, list courses; use separate sheet.

Is this course on the General Education list? Yes | X | No | X

**Justification/Explanation:** Use separate sheet.

**Note:** IF COURSE IS OR WILL BE CROSS-LISTED, SEPARATE FORMS MUST BE SUBMITTED BY EACH DEPARTMENT.

### Approvals

<table>
<thead>
<tr>
<th>Department Faculty Approval Date</th>
<th>Nov. 1, 2017</th>
<th>College Faculty Approval Date</th>
<th>11/17/17</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E. K. Taylor</strong> Signature</td>
<td>11/02/17</td>
<td><strong>C. Petterson</strong> Signature</td>
<td>11/17/17</td>
</tr>
<tr>
<td><strong>Michelle A. White</strong> Signature</td>
<td>11/20/17</td>
<td><strong>College Dean Signature</strong></td>
<td>(Date)</td>
</tr>
</tbody>
</table>

**Graduate Dean Signature** | 11/20/17 | **John B. H.** Signature | 11/20/17 |

**E-mail:** edoherty1@lsu.edu

**Academic Affairs Approval** | 12/16/17 | **R. W. H.** Signature | 11/30/17 |
Justification:

We are modifying the course descriptions of CHEM 4561 & 4562 to help students differentiate between the two courses. And for this course we have modified the course title by removing “Intermediate” from its previous title. *(CHEM 4562 title also starts with “Intermediate” in its course name.)* No changes in course content or format are being proposed.

The course description is modified slightly to clarify the phrase “related topics in physical organic chemistry” by specifying the supramolecular chemistry. This helps identify this course for our accreditation by the American Chemical Society, which is looking for courses with supramolecular chemistry content.

The content, delivery, and expectations remain the same for this course. It is still taught at the same 4000 level course.

Any curricula and concentrations which list this course:

CHEM 4561 is listed as one of the Chemistry electives for:
- Chemistry with a Chemistry concentration
- Chemistry with a Secondary Education concentration

CHEM 4561 is also listed as a course in the Group 1 Courses in the Biochemistry degree.
Hi Linda,

The Department of Biological Sciences approves the changes to CHEM 4561, CHEM 4562 and CHEM 4563 noted in your email.

Thanks,
Gregg

Gregg S. Pettis, Ph.D.
Associate Chair for Undergraduate Studies
Department of Biological Sciences
Louisiana State University
101 Life Sciences Bldg.
Baton Rouge, LA, USA 70803

Hi Joe and Gregg,

The Chemistry Department is submitting C&C paperwork to remove the CHEM 3492 prerequisite from two 4000 level courses. The two courses are CHEM 4561 Intermediate Physical-Organic Chemistry and CHEM 4563, Problems in Organic Structure Elucidation. In both courses we are changing the courses as shown below.

In addition, we are slightly changing the course description of CHEM 4562 to better differentiate it from CHEM 4561.

Since all of these 3 courses are listed in Group 1 Courses in the Biochemistry curriculum, I am requesting the Biological Sciences approval for these changes. It will make it easier for your students to take these courses. If you have any questions, please contact me.

Thanks,
Linda
Request for **CHANGING** an Existing Course

<table>
<thead>
<tr>
<th>Department</th>
<th>CHEMISTRY</th>
<th>College</th>
<th>SCIENCE</th>
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<tbody>
<tr>
<td>Course Rubic &amp; Number</td>
<td>CHEM 4562</td>
<td>Date</td>
<td>Nov. 1, 2017</td>
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**PRESENT COURSE DESCRIPTION**

<table>
<thead>
<tr>
<th>Title</th>
<th>Intermediate Organic Chemistry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Semester Hours of Credit</td>
<td>3</td>
</tr>
<tr>
<td>If combination course type, # hrs. of credit</td>
<td>Lecture: _ _ Lab/Sem/Rec: _ _</td>
</tr>
<tr>
<td>Repeat Credit Max. (if repeatable):</td>
<td>NONE</td>
</tr>
<tr>
<td>Graduate Credit?</td>
<td>Yes X  No</td>
</tr>
</tbody>
</table>

Credit will not be given for this course and:

**Contact:** Hours Per Week: (Indicate hours in appropriate course type.)

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Lab</th>
<th>Seminar</th>
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<td></td>
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</tbody>
</table>

Total Weekly Contact Hours: 3

Grading System: Letter Grade _ X_ Pass/Fail _ ___

**Course Description:**

*(Include course number, title, etc. exactly as it appears in the General Catalog)*

CHEM 4562 Intermediate Organic Chemistry (3)

Prereq.: CHEM 2262 or CHEM 2462. Selected topics in synthesis, natural products chemistry, stereochemistry, reaction mechanisms and related topics in structural and synthetic organic chemistry.

**PROPOSED COURSE DESCRIPTION**

<table>
<thead>
<tr>
<th>Title</th>
<th>Intermediate Organic Chemistry</th>
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<tbody>
<tr>
<td>Short Title</td>
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<td>Semester Hours of Credit</td>
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<td>If combination course type, # hrs. of credit for</td>
<td>Lecture: _ _ Lab/Sem/Rec: _ _</td>
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<tr>
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</table>

Total Weekly Contact Hours: 3

Grading System: Letter Grade _ X_ Pass/Fail _ ___

**Course Description:**

*(Include course number, title, etc. exactly as it appears in the General Catalog)*

CHEM 4562 Intermediate Organic Chemistry (3)

Prereq.: CHEM 2262 or CHEM 2462. Selected topics in organic synthesis, natural products chemistry, stereochemistry, and organic reactions.

**THESE QUESTIONS MUST BE ANSWERED COMPLETELY AND ACCURATELY OR PROPOSAL WILL BE RETURNED:**

Has this change been discussed with and approved by all departments/colleges affected? Yes _ X_ No ___ N/A ___

Is this course included in any curricula, concentrations, or minors? Yes _ X_ No ___ If yes, please list on a separate sheet.

Is this course a prerequisite or corequisite for other courses? Yes ___ No _ X_ If yes, please list on a separate sheet.

Is this course on the General Education list? Yes ___ No _ X_  

**JUSTIFICATION/EXPLANATION:** Use separate sheet.

Note: IF COURSE IS OR WILL BE CROSS-LISTED, SEPARATE FORMS MUST BE SUBMITTED BY EACH DEPARTMENT.

**APPROVALS**

<table>
<thead>
<tr>
<th>Department Faculty Approval Date</th>
<th>Nov. 1, 2017</th>
<th>College Faculty Approval Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. N. Taylor</td>
<td>11/02/17</td>
<td></td>
</tr>
</tbody>
</table>

Department Chair Signature (date)

Michelle O. Marsi 11/30/17

Graduate Dean Signature (date)

Erin Doherty edoherty1@lsu.edu

College Contact E-mail

**Chancellor’s Office**

John B. Hagle 11/30/17

Chancellor’s Office (date)

Matt Lee 12/18/17

Academic Affairs Approval (date)
Justification:

The Organic Chemistry divisional faculty have modified the course description of CHEM 4562, Intermediate Organic Chemistry, to help differentiate it from CHEM 4561 (on a separate form). The course material and expectations are not changing and it is still taught as a 4000 level course. Previously both course descriptions started with "Intermediate" in the title and both descriptions mentioned reaction mechanisms. The new, simpler course description shows the emphasis on organic synthesis, natural products chemistry, and other organic reactions, rather than the theoretical & mechanistic approach of CHEM 4561. Mechanisms are still being taught in this course, but is a minor component of the course, so we are removing it from the course description.

The content, delivery, and expectations remain the same for this course. It is still taught at the 4000 level.

Any curricula and concentrations which list this course:

CHEM 4562 is listed as one of the Chemistry electives for:
- Chemistry with a Chemistry concentration
- Chemistry with a Secondary Education concentration

CHEM 4562 is also listed as a course in the Group 1 Courses in the Biochemistry degree.
From: Gregg S Pettis  
Sent: Sunday, October 29, 2017 10:21 AM  
To: Linda Allen; Joseph F Siebenaller  
Cc: Carol M Taylor  
Subject: Re: Notification of Change in CHEM courses  

Hi Linda,

The Department of Biological Sciences approves the changes to CHEM 4561, CHEM 4562 and CHEM 4563 noted in your email.

Thanks,
Gregg

---

Gregg S. Pettis, Ph.D.  
Associate Chair for Undergraduate Studies  
Department of Biological Sciences  
Louisiana State University  
101 Life Sciences Bldg.  
Baton Rouge, LA, USA  70803

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From: Linda Allen  
Sent: Friday, October 27, 2017 2:54:29 PM  
To: Joseph F Siebenaller; Gregg S Pettis  
Cc: Carol M Taylor  
Subject: Notification of Change in CHEM courses  

Hi Joe and Gregg,

The Chemistry Department is submitting C&C paperwork to remove the CHEM 3492 prerequisite from two 4000 level courses. The two courses are CHEM 4561 Intermediate Physical-Organic Chemistry and CHEM 4563, Problems in Organic Structure Elucidation. In both courses we are changing the courses as shown below.

In addition, we are slightly changing the course description of CHEM 4562 to better differentiate it from CHEM 4561.

Since all of these 3 courses are listed in Group 1 Courses in the Biochemistry curriculum, I am requesting the Biological Sciences approval for these changes. It will make it easier for your students to take these courses. If you have any questions, please contact me.

Thanks,
Linda


**Request for CHANGING an Existing Course**

**Present Course Description**

<table>
<thead>
<tr>
<th>Title</th>
<th>Problems in Organic Structure Elucidation</th>
</tr>
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<tbody>
<tr>
<td>Semester Hours of Credit</td>
<td>3</td>
</tr>
</tbody>
</table>

If combination course type, # hrs. of credit for:
- Lecture: ___________ Lab/Sem/Rec: ___________
- Repeat Credit Max. (if repeatable): NONE
- Graduate Credit? Yes [X] No _______

Contact Hours Per Week: (Indicate hours in appropriate course type.)

<table>
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<tr>
<th>Lecture</th>
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Total Weekly Contact Hours: 3

Grading System: Letter Grade [X] Pass/Fail _______

Course Description:

(Include course number, title, etc. exactly as it appears in the General Catalog)

**Chem 4563 Problems in Organic Structure Elucidation (3)**

Prereq.: CHEM 2262 or CHEM 2462 and CHEM 3492. Focus on interpretation of multiple types of NMR spectra, mass spectra or other spectra relevant to structure elucidation; extensive utilization of actual spectra in problem solving sessions.

**Proposed Course Description**

<table>
<thead>
<tr>
<th>Title</th>
<th>Organic Structure Elucidation</th>
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<tbody>
<tr>
<td>Semester Hours of Credit</td>
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If combination course type, # hrs. of credit for:
- Lecture: ___________ Lab/Sem/Rec: ___________
- Repeat Credit Max. (if repeatable): NONE
- Graduate Credit? Yes [X] No _______

Contact Hours Per Week: (Indicate hours in appropriate course type.)

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Total Weekly Contact Hours: 3

Grading System: Letter Grade [X] Pass/Fail _______

Course Description:

(Include course number, title, etc. exactly as it appears in the General Catalog)

**CHEM 4563 Organic Structure Elucidation (3)**

Prereq.: CHEM 2262 or CHEM 2462. Focus on interpretation of multiple types of NMR spectra, mass spectra or other spectra relevant to structure elucidation; extensive utilization of actual spectra in problem solving sessions.

**These Questions Must Be Answered Completely and Accurately or Proposal Will Be Returned.**

Has this change been discussed with and approved by all departments/colleges affected? Yes [X] No ______ N/A

Is this course included in any curricula, concentrations, or minors? Yes [X] No ______ If yes, please list on a separate sheet.

Is this course a prerequisite or corequisite for other courses? Yes [X] No ______ If yes, list courses; use separate sheet.

Is this course on the General Education list? Yes ______ No [X]

**Justification/Explanation:** Use separate sheet.

Note: IF COURSE IS OR WILL BE CROSS-LISTED, SEPARATE FORMS MUST BE SUBMITTED BY EACH DEPARTMENT.

**Approvals**

**Department Faculty Approval Date:** Nov. 1, 2017

**College Faculty Approval Date:**

**Department Chair Signature:**

John H. Taylor 11/02/17

**Graduate Dean Signature:**

Michelle A. Massie 11/30/17

**College Contact:**

Erin Doherty edoherty1@lsu.edu

**College Signature:**

**Chair, SC&C Committee:**

**Academic Affairs Approval Date:**

12/18/17
Justification:
The Organic Chemistry divisional faculty have requested the removal of CHEM 3492, Physical Chemistry II, from the prerequisites of CHEM 4563. In recent years, we have allowed students into the course without meeting the CHEM 3492 prerequisite, and these students have succeeded in the course. Removal of this prerequisite will allow more students to take CHEM 4563 while still maintaining the content at the same level. In recent years, the American Chemical Society no longer requires CHEM 3492 as a prerequisite for courses at the 4000 level.
The content, delivery, and expectation remain the same for this course. It is still taught at the same 4000 level course.

Any curricula and concentrations which list this course:
CHEM 4563 is listed as one of the Chemistry electives for:
   Chemistry with a Chemistry concentration
   Chemistry with a Secondary Education concentration
CHEM 4563 is also listed as a course in the Group 1 Courses in the Biochemistry degree.
Hi Linda,

The Department of Biological Sciences approves the changes to CHEM 4561, CHEM 4562 and CHEM 4563 noted in your email.

Thanks,
Gregg

Gregg S. Pettis, Ph.D.
Associate Chair for Undergraduate Studies
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