Texas A&M University
Departmental Request for a New Course
Undergraduate * Graduate * Professional
Submit original form and attach a course syllabus.

1. This request is submitted by the Department of ___________ Biochemistry and Biophysics

2. Course prefix, number and complete title of course: BICH 665 Biochemical Kinetics

3. Course description (not more than 50 words): Theoretical principles and practical approaches to analysis of chemical kinetics with specific examples of applications to biochemistry and biochemical investigations.

4. Prerequisite(s) Graduate classification Cross-listed with ___________ None

Cross-listed courses require the signature of both department heads.

5. Is this a variable credit course? ☐ Yes ☑ No If yes, from ______ to ______.

6. Is this a repeatable course? ☐ Yes ☑ No If yes, this course may be taken ______ times. Will the course be repeated within the same semester/term? ☐ Yes ☑ No

7. Has this course been taught as a 289/489/689? ☑ Yes ☐ No If yes, how many times? ______. Indicate the number of students enrolled for each academic period it was taught. 2004/11, 2006/5

8. This course will be:
   a. required for students enrolled in the following degree program(s) (e.g., B.A. in history)
      n/a
   b. an elective for students enrolled in the following degree program(s) (e.g., M.S., Ph.D. in geography)
      M.S., Ph.D. in biochemistry and chemistry

9. If other departments are teaching or are responsible for related subject matter, the course must be coordinated with these departments. Attach approval letters.

10. Prefix | Course # | Title (excluding punctuation)

| BICH | 665 | BIOCHEMICAL KINETICS |

<table>
<thead>
<tr>
<th>Lect.</th>
<th>Lab</th>
<th>SCH</th>
<th>Subject Matter Content Code</th>
<th>Admin. Unit</th>
<th>Acad. Year</th>
<th>FICE Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>00</td>
<td>01</td>
<td>126020020002042008-09</td>
<td>003632</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approval recommended by:

Head of Department Date

Chair, College Review Committee Date

Dean of College Date

Submitted to Coordinating Board by:

Dean of College Date

Director of Academic Support Services Date Effective Date

Questions regarding this form should be directed to Sandra Williams at 845-8836.
OAR/AS – 04/07
BICH 665
Biochemical Kinetics: Theory and Practice
Syllabus

Spring, 2008
Room 403 Bio/Bio Building
Thursdays, 8:00 - 9:15 a.m., January 17 - April 10, 2008
(10 lectures - 1 hour and 15 minutes per week)
Credit: 1 hour
Prerequisite: Graduate classification

Instructor: Gregory D. Reinhart
Office: 420 Bio/Bio (or 103 Bio/Bio)
Lab: 416-424 Bio/Bio
Phone: 862-2263
E-mail: gdr@tamu.edu
Office hours: Drop in or by appointment

BICH 665, Biochemical Kinetics: Theory and Practice is a graduate level, 1 credit course covering chemical kinetics, with specific examples of applications to biochemistry and biochemical investigations. We will start at the "beginning" and logically progress to more advanced kinetic situations. Both theoretical principles and practical approaches to analysis will be discussed.

Text: To be determined.
Grading will be determined by performance on a take-home problem set midway through the course and an in-class exam at the end of the course.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>mid-term problem set</td>
<td>100</td>
</tr>
<tr>
<td>final exam</td>
<td>100</td>
</tr>
<tr>
<td>TOTAL POINTS =</td>
<td>200</td>
</tr>
</tbody>
</table>

Please Note:

*Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact Dr. Reinhart personally as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunity.*

Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities in Cain Hall, Rm. B118, or call 845-1637.

Academic Integrity Statement: “An Aggie does not lie, cheat or steal, or tolerate those who do.”
Aggie Honor Code in the Honor Council Rules and Procedures on the web:
[http://www.tamu.edu/aggiehonor](http://www.tamu.edu/aggiehonor)

“On my honor, as an Aggie, I have neither given nor received unauthorized aid on this academic work.”

__________________________________________________________
Signature
**Tentative Schedule**

Class time: 8:00 – 9:15

<table>
<thead>
<tr>
<th>Date</th>
<th>Coverage</th>
<th>Coverage Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 17</td>
<td>R</td>
<td>First order irreversible reactions</td>
</tr>
<tr>
<td>January 24</td>
<td>R</td>
<td>First order reversible reactions</td>
</tr>
<tr>
<td>January 31</td>
<td>R</td>
<td>First order branched reactions</td>
</tr>
<tr>
<td>February 7</td>
<td>R</td>
<td>First order sequential reactions</td>
</tr>
<tr>
<td>February 14</td>
<td>R</td>
<td>Steady-state reaction sequences</td>
</tr>
<tr>
<td>February 21</td>
<td>R</td>
<td>Second order reactions</td>
</tr>
<tr>
<td>February 28</td>
<td>R</td>
<td>Pseudo-first order reactions</td>
</tr>
<tr>
<td>March 6</td>
<td>R</td>
<td>Net rate constants</td>
</tr>
<tr>
<td>March 13</td>
<td>R</td>
<td>SPRING BREAK</td>
</tr>
<tr>
<td>March 20</td>
<td>R</td>
<td>Catalyzed reactions</td>
</tr>
<tr>
<td>March 27</td>
<td>R</td>
<td>Derivation of enzyme rate equations</td>
</tr>
<tr>
<td>April 4</td>
<td>R</td>
<td>Exam</td>
</tr>
</tbody>
</table>