### Recommended Course Identification:

- **Prefix**: ___________
- **ENT**: ___________
- **Course Number**: 6188
- **Lab Code** (L or C): ___________

*(To obtain a course number, contact erudolfi@fau.edu)*

### Complete Course Title:

**BIOTECHNOLOGY BUSINESS DEVELOPMENT**

### Effective Date

(first term course will be offered)

- **Fall 2010**

### Credits: 3

### Textbook Information:


### Grading (Select only one grading option):

- **Regular** __X__
- **Pass/Fail** ______
- **Satisfactory/Unsatisfactory** ______

### Course Description:

Biotechnology is the application of basic science discoveries to medicine, agriculture, and the environment. Biotech companies are formed around biotechnology applications and these companies involve both science and business. The goal of this course is to understand the relationship between biotech business and biotech science.

### Prerequisites with Minimum Grade:

- **None**

### Corequisites:

- **None**

### Other Registration Controls (Major, College, Level):

- **Graduate Standing**

### Minimum Qualifications Needed to Teach This Course:

- **Ph.D. in Science or Equivalent and Business Experience**

Other departments, colleges that might be affected by the new course must be consulted. List entities that have been consulted and attach written comments from each.

Gary Castrogiovanni, castrogi@fau.edu, (561) 297-2523
Faculty Contact, Email, Complete Phone Number

### Signatures

**Approved by:**
- Department Chair: ____________________________
- College Curriculum Chair: ______________________
- College Dean: _________________________________
- UGPC Chair: _________________________________
- Dean of the Graduate College: ___________________

**Date:**

**Syllabus**—must include all details as shown in the UGPC Guidelines.

**Written Consent**—required from all departments affected.

Go to: [http://graduate.fau.edu/gpc/](http://graduate.fau.edu/gpc/) to download this form and guidelines to fill out the form.

Email this form and syllabus to sfulks@fau.edu and eqirjo@fau.edu one week before the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website by committee members prior to the meeting.

*FAUnewGrad—Revised May 2008*
Course Description

This course focuses on the critical decisions and action steps that entrepreneurs must make in both planning and executing a new venture. Students develop new venture implementation plans, and learn how to manage their execution.

Prerequisites: None.
Corequisites: None.
Other Requirements: Graduate Standing.

Method of Instruction

A combination of lectures, classroom exercises, single and group assignments, discussion, and presentations will be used.

Grading

The student will be assessed on their roll play in each of four positions during company simulations, as a new company scientist, as a new company business person, as an acquiring/licensing company scientist and as an acquiring/licensing company business person.

<table>
<thead>
<tr>
<th>Roll/Activity</th>
<th>100%</th>
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</thead>
<tbody>
<tr>
<td>NewCo Scientists</td>
<td>20</td>
</tr>
<tr>
<td>NewCo Business person</td>
<td>20</td>
</tr>
<tr>
<td>BigCo Scientists</td>
<td>20</td>
</tr>
<tr>
<td>BigCo Business person</td>
<td>20</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10</td>
</tr>
<tr>
<td>Attendance</td>
<td>10</td>
</tr>
</tbody>
</table>

Final course grades will be determined according to the following scale:

- A = 90-100%
- B = 80-89%
- C = 70-79%
- D+ = 60-69%
- F = <60%

(Grades may be curved to adjust to 100%.)

It is the responsibility of the student to withdraw from this class, should that status be desired - the instructor cannot withdraw students from the course. The instructor will not give the grade of "I" in lieu of a grade of "D" or "F". The grade of "I" will be considered only in exceptional cases (such as serious illness) for students who are presently performing at a "C" or higher level in the course.

Course Materials

Required Textbook:


Supplementary Materials:

Recent research and review papers, which will be posted on blackboard or given as handouts.
**Graded Activities**

**Roll Playing.** Each student will be assigned a roll in a company in each four different fictitious biotech company scenarios that each student group will develop. The goal is for each student to play a different roll in each of the four scenarios and to be graded on each roll as outlined above in the assessment section. This will provide the student a chance to see what it is like to be in four different rolls involving the business of biotech companies. The assignments will be made early in the course so that each group can formulate their company and strategies and each student can prepare for their roll.

**Class Participation.** Participation in class will be assessed based on reasonable questions asked in class or after class for each lecture session.

**Attendance.** Students are expected to attend all scheduled classes. If a student misses a class they are responsible for ALL the material covered during that class, including lecture material and rules and regulations about the course.

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**Course Policies**

Students in this course are expected to conform to all university policies. Additionally, students should note the following.

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**HONOR CODE**

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [http://www.fau.edu/regulations/chapter4/4.001 Honor Code.pdf](http://www.fau.edu/regulations/chapter4/4.001 Honor Code.pdf)

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**STUDENTS WITH DISABILITIES**

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton, SU133 (561-297-3880), in Davie-MOD 1 (954-236-1222), in Jupiter SR117 (561-799-8585) or at the Treasure Coast- CO 128 (772-873-3305), and follow all OSD procedures.
## Tentative Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Course Introduction</td>
</tr>
</tbody>
</table>
| 2    | Business in the context of biotechnology  
  - Overview of biotechnology field  
  - Biotechnology as a function of science and business  
  - Company structures versus other non-biotech companies  
  - Functional units |

**Groups will be assigned**

| 3    | Company structure and functions  
  - Science/development, the idea and its development  
    - Pharmaceutical drug development  
    - Medical device product development  
    - Technology product development  
    - Other biotech product development, such as biofuels, bioengineered foods, etc.  
  - CEO/CFO, the funding  
    - Sources of funding  
    - Obligations  
    - Exit strategy for funding entities |

| 4    | Company structure and functions (cont'd)  
  - Legal  
    - Patents  
    - Confidentiality  
    - Licensing agreements  
  - Business Development/Licensing  
    - Strategy  
    - Business plan  
    - Marketing  
    - Business dealing |

| 5    | Roll-Play #1: New company simulations with presentations and discussions |

| 6    | Business Development and Licensing company organizations  
  - Department structure and function  
    - Business Development and Licensing  
      - Business versus science  
      - Technology versus compound v product/business  
      - Staff experience  
    - Staff dedicated versus borrowed  
    - Business Development and Licensing support  
  - Licensing data  
    - How much licensing going on in biotech field?  
    - Why is there a licensing need?  
  - Licensing strategy  
    - Basic hurdles: IP type, drug class, use, development stage  
    - Positive list  
    - Negative list |
7 Business Development and Licensing company organizations (cont’d)
   – Seek
     • Sources
     • Types of items to license
   – Evaluate
     • Preliminary
     • Due diligence
   – Scientific input

8 Roll-Play #2: New company simulations with presentations and discussions

9 Business Development department functions
   – Commercial/financial evaluation
     • What is included?
     • Where do the deal dollar amounts originate?
     • Where does mergers and acquisition fit in?
   – Negotiation
     • Term sheet
     • Give and take
     • Pathway to approval with companies, licensor and licensee
   – Done deal, what does it mean?
     • Bio dollars versus real dollars
     • Key biotech requests

10 Business Development department functions (cont’d)
   – Miscellaneous
     • Alliance management
     • Mergers and Acquisitions
     • Deal outliers and why

11 Roll-Play #3: New company simulations with presentations and discussions

12 Other company functions
   – Marketing/Sales
   – Marketing research
   – Competitive intelligence
   – Manufacturing

13 Case studies
   – Company
   – Licensing/partnering

14 Careers in biotechnology and general discussion

15 Roll-Play #4: New company simulations with presentations and discussions

Key dates are highlighted in **bold and italics** above. It is imperative that you participate in those sessions. Late assignments are unacceptable. If you must miss one of the role play sessions, the instructor may give a make-up assignment at his/her discretion, depending on your reason for missing and when you contacted the instructor to explain why you missed and to see if you would be allowed a makeup assignment.
Additional Reading


