

UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: Melinda K. Duncan, Ph.D. _____ phone number 831-0533

Action: **Establish a new Dual Degree Ph.D. in Biological Sciences/Master of Business Administration**

(Example: add major/minor/concentration, delete major/minor/concentration, revise major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

Effective term 06F _____
(use format 04F, 05W)

Current degree _____
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: Ph.D./MBA _____
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: Dual Degree Ph.D. in Biological Sciences/Master of Business Administration _____
Proposed new name for revised or new major / minor / concentration / academic unit
(if applicable)

Revising or Deleting:

Undergraduate major / Concentration: _____
(Example: Applied Music – Instrumental degree BMAS)

Undergraduate minor: _____
(Example: African Studies, Business Administration, English, Leadership, etc.)

Graduate Program Policy statement change: _____
(Attach your Graduate Program Policy Statement)

Graduate Program of Study: _____
(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

Graduate minor / concentration: _____

List program changes for curriculum revisions:

List new courses required for the new or revised curriculum:

(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter "None")

none

Other affected units:

(List other departments affected by this new or revised curriculum. Attach permission from the affected units. If no other unit is affected, enter "None")

none

Rationale:

(Explain your reasons for creating, revising, or deleting the curriculum or program.)

a. Rationale for creation, revision, or deletion:

The Department of Biological Sciences has offered the Ph.D. in Biological Sciences since 1953 with the goal of training scientists to independently seek new knowledge relevant to the life sciences. A survey of the graduates from this program over the last 30 years has revealed that a large percentage of them have either founded new businesses relevant to their scientific training or are currently employed in industrial settings. In addition, many of our current students intend to apply the training they are receiving in our graduate program to study questions of interest to the pharmaceutical industry.

The Alfred Lerner College of Business and Economics has since 1954 offered the Masters in Business Administration (MBA) degree, which provides students with the knowledge necessary to navigate in the business setting. Over the past three years, three Ph.D. students in the Department of Biological Sciences have also earned MBAs from the Alfred Lerner College of Business and Economics in order to better prepare them for their career goals. While the MBA program allows students to take up to 15 credits in their subject of specialization to complement the business curriculum, the current structure of two separate degree programs does not allow the field specific courses required for the Ph.D. in Biological Sciences to fulfill this requirement in the MBA program. The creation of a dual Ph.D./MBA program will allow 15 credits of coursework for the Ph.D. in biological sciences to fulfill the elective requirement for the MBA program.

b. Summary of program:

The dual Ph.D. in Biological Science/MBA will provide students with the necessary skills to create new knowledge in the life sciences combined with a detailed understanding of the business environment.

Target population

Students in this program are expected to be highly motivated Biological Sciences Ph.D. students who wish to supplement their life science research education with an in depth understanding of the business environment. Such students would be preparing themselves as either scientific entrepreneurs or for careers in industrial science.

Structure of the program

- Total of 64 credits
- The MBA core and required courses (33 credits) combined with the Ph.D. in Biological Sciences (16 credits of required and elective course work, 6 credits of research rotations, 9 credits of doctoral dissertation, grade of Pass on both the preliminary and qualifying exam).

Program Requirements:

(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the present curriculum.) See Attached.

**Ph.D. in Biological Sciences
Masters of Business Administration**

Ph.D./MBA Dual Degree Proposal

Part I. Program History

The Department of Biological Sciences has offered the Ph.D. in Biological Sciences since 1953 with the goal of training scientists to independently seek new knowledge relevant to the life sciences. The Alfred Lerner College of Business and Economics has offered the Master in Business Administration (MBA) degree since 1954 to prepare students for the business world. Since many students pursuing the Ph.D. in Biological Sciences are interested in pursuing careers in industrial science, the Department of Biological Sciences and The Alfred Lerner College of Business and Economics has developed a joint Ph.D. in Biological Sciences/ MBA degree. The Department of Biological Sciences and the Alfred Lerner College of Business and Economics jointly administer this program.

Part II. Admission

Students desiring to pursue the joint Ph.D. in Biological Sciences/MBA initially apply directly to the Ph.D. program of the Department of Biological Sciences and must meet the admissions requirements of the Ph.D. program (See the University catalog for those requirements). The student matriculates into the Ph.D. program, must successfully complete all first year course work, choose a dissertation advisor, pass the preliminary examination and form their dissertation advisory committee as required for the Ph.D. program. During the summer between the first and second year in the Ph.D. program, the student must convene their advisory committee and petition them for permission to take 6 credits of tier one MBA coursework in addition to their Ph.D. coursework requirements during the second year. Since Ph.D. students are supported on assistantships based in the Department of Biological Sciences and receive tuition scholarships for these assistantships, continued enrollment in any MBA classes is dependent on maintained satisfactory progress towards the Ph.D.

Once the student has successfully completed all required course work for the Ph.D. degree and has completed 6 credits of MBA coursework, students interested in the joint Ph.D./MBA program must convene their Ph.D. advisory committee and petition for permission to apply to the joint Ph.D./MBA program. If this petition is granted, the student's progress towards the Ph.D. is reviewed by the Graduate Affairs Committee (GAC) of the Department of Biological Sciences. If GAC finds that the student is in good standing in the department, the student then applies to the MBA program for admission into the joint Ph.D./MBA program. The prospective student is encouraged to see the admissions policies for both programs in the graduate catalog.

Applications to the Ph.D. program in Biological Sciences and letters of recommendation are to be submitted to:

Office of Graduate Studies

<http://www.udel.edu/gradoffice/applicants/> or via mail at

234 Hullihen Hall

University of Delaware.

Newark, Delaware 19716.

The Ph.D. in Biological Sciences/ MBA is a joint degree program. As such, the joint programs must be completed and the dual degree is conferred simultaneously. Students admitted to the

Ph.D./MBA joint degree program who later decide they only want to complete one of the degrees must either petition the graduate school to reenter the Ph.D. program in Biological Sciences or apply separately to the MBA program for admission as a candidate in that program. Students who complete the single degree (Ph.D. in Biological Sciences or MBA) may not at a later date be admitted to the dual degree program. In such case the student would be required to complete all requirements for the second degree. A student who decides to pursue the dual degree must apply for change of degree to the Ph.D./MBA dual degree prior to receiving the first degree and must complete the requirements for the dual degree prior to any degree being granted.

Part III. Academic

The Ph.D. in Biological Sciences/MBA program combines the require courses for the Ph.D. in Biological Sciences with the additional required courses of the MBA program. The minimum credit requirements for the Ph.D. make up 31 credits of the program. The MBA core and required courses make up 33 credits of the program. The following table identifies the Ph.D. and MBA curriculum. The column labeled “sequence” indicates the approximate sequence in which courses should be taken

Ph.D./MBA Dual Degree Curriculum

REQUIRED COURSES	CREDITS	MBA Tiers*
Ph.D. CORE and REQUIRED COURSES		
BISC 827 Graduate research seminar 1 credit/semester minimum of 4 semesters required	4	
First semester track requirement (see track policy)	3	
Second semester track requirement (see track policy)	3	
BISC 864 Research tutorial (3, 2 credit tutorials required)	6	
Second year track requirement (see track policy)	3	
Second year track elective (see track policy)	3	
BISC 969 Doctoral dissertation	9	
MBA CORE & REQUIRED COURSES		
ECON 503 - Economic Analysis for Business Policy	3	Tier I
ACCT 800 - Financial Reporting and Analysis	3	Tier I
BUAD 820 - Data Analysis and Quality Management	3	Tier I
BUAD 870 - Understanding People in Organizations	3	Tier I
FINC 850 - Financial Management	3	Tier II
BUAD 880 - Marketing Management	3	Tier II
BUAD 831 - Operations Management and Management Science	3	Tier II
BUAD 840 - Ethical Issues in Domestic & Global Environments	3	Tier III
ACCT 801 - Management Control Systems	3	Tier III
BUAD 890 - Corporate Strategy	3	Tier III
International business elective	3	
TOTAL REQUIRED CREDITS	64	

* MBA Tiers indicate approximate sequence that courses should be taken.

A recommended schedule of courses

Year one, Semester one		
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Track requirement	3	
Bisc827. Graduate research seminar	1	
Bisc 864 Research Tutorial (two sections of 2 credits each)	4	
Year one, Semester two		
Track requirement	3	
Bisc827. Graduate research seminar	1	
Bisc 864 Research Tutorial (one sections of 2 credits)	2	
Bisc 868 Research	2	
Summer year one		
preliminary exam		
apply to enter Ph.D./MBA interest		
Year two, Semester one		
Track requirement	3	
Bisc827. Graduate research seminar	1	
Bisc 964 Precandidacy study	4	
ECON 503 - Economic Analysis for Business Policy	3	Tier I
Year two, Semester two		
Track elective	3	
Bisc827. Graduate research seminar	1	
Bisc 964 Precandidacy study	4	
ACCT 800 - Financial Reporting and Analysis	3	Tier I
Summer year two		
apply to dual Ph.D./MBA program		
Year three, Semester one		
Bisc 964 Precandidacy study	4	
Bisc827. Graduate research seminar	1	
BUAD 820 - Data Analysis and Quality Management	3	Tier I
BUAD 870 - Understanding People in Organizations	3	Tier I
Year three, Semester two		
Bisc 964 Precandidacy study	4	
Bisc827. Graduate research seminar	1	
FINC 850 - Financial Management	3	Tier II
BUAD 880 - Marketing Management	3	Tier II
Summer year three		
Qualifying exam in Biological Sciences		
Year four, Semester one		
Bisc 969 Doctoral dissertation	4	
Bisc827. Graduate research seminar	1	
BUAD 831 - Operations Management and Management Science	3	Tier II
BUAD 840 - Ethical Issues in Domestic & Global Environments	3	Tier III
Year four, Semester two		
Bisc 969 Doctoral dissertation	4	
Bisc827. Graduate research seminar	1	
ACCT 801 - Management Control Systems	3	Tier III
BUAD 890 - Corporate Strategy	3	Tier III
Year five, Semester one		
Bisc 969 Doctoral dissertation	4	
Bisc827. Graduate research seminar	1	
International business elective	3	Tier III

Year five, Semester two		
Graduate Sustaining Status	0	
Bisc827. Graduate research seminar	0	

Transfers of coursework earned elsewhere, and waivers of courses are allowable under the same provisions as the Ph.D. and MBA programs separately. Dual degree students must complete a minimum of 64 credits of coursework at the graduate level. Since financial aid for students in the joint Ph.D./MBA program is provided from the same sources as students in the Ph.D. program in Biological Sciences (see below), continued enrollment in MBA courses is dependent on the student making satisfactory progress towards the Ph.D. This is certified by the student's Ph.D. advisory committee at the student's regular committee meeting that is held at 6-month intervals. Students in this program are under the same expectations of research excellence as those in the traditional Ph.D. program in Biological Sciences. The MBA committee of the Lerner College of Business is responsible for monitoring progress in the business curriculum.

Students must maintain continuous enrollment in every regular semester (fall and spring) throughout their program unless by approved leave of absence. This can be accomplished by registering for research or dissertation credit during the time the dissertation project is underway, or by registering for sustaining status. See the catalog for the university policy on sustaining status at <http://www.udel.edu/gradoffice/current/policysustaining.html>, and regarding leave of absence at <http://udcatalog.udel.edu/general/grad/gradregs.html#leave>.

Part IV. Financial aid

Students in the Ph.D. in Biological Sciences/MBA program may compete for the same sources of financial assistance as available to Ph.D. students. See the Ph.D. program policy statement for specifics. The same criteria for financial assistance apply.

Other Financial Aid Opportunities

Other Fellowships and Internship opportunities are occasionally available through the University. Interested students should check the Office of Graduate Studies website at <http://www.udel.edu/gradoffice/applicants> for the most current opportunities.

Residence Hall Directorships

In addition, the University hires Residence Hall Directors from among the ranks of its graduate students. Candidates are chosen for their superior leadership and communication skills, as well as the capability to provide guidance to undergraduates. Hall Directors are eligible for room and board, and full tuition waivers. Contact the Office of Housing and Residence Life at (302) 831-8423 for additional information as soon as possible. Applicants are usually interviewed around mid-April.

MBA Corporate Associate

The Alfred Lerner College of Business and Economics operates a "Corporate Associates" program in which graduate students are placed half time in industry positions. The positions are competitive and selection is based on the student's fit with the industry position. The employer has the final say in selection. Corporate Associates receive half time funding and tuition waivers. Contact the Lerner College Graduate and Executive Programs office for further information at (302) 831-2221.

Part V. Departmental Operations

Occasionally student’s graduate assistantship or other assignments may require the use of departmental laboratories or other facilities. Keys to laboratories, etc., are maintained in the Department office and will be issued based on faculty and Department Chair approval.

Any assignments that require the expenditure of departmental funds (e.g. data collection activities) require departmental approval in advance and are processed through the department in which the work is to be done.

ROUTING AND AUTHORIZATION: (Please do not remove supporting documentation.)

Department Chairperson, Biological Sciences _____ Date _____

Department Chairperson, Business Administration _____ Date _____

Dean of College of Arts and Sciences _____ Date _____

Dean of Alfred Lerner College of Business and Economics _____ Date _____

Chairperson, College of Arts and Sciences Curriculum Committee _____ Date _____

Chairperson, Alfred Lerner College of Business and Economics Curriculum Committee _____ Date _____

Chairperson, Senate Com. on UG or GR Studies _____ Date _____

Chairperson, Senate Coordinating Com. _____ Date _____

Secretary, Faculty Senate _____ Date _____

Date of Senate Resolution _____ Date to be Effective _____

Registrar _____ Program Code _____ Date _____

Vice Provost for Academic Programs & Planning _____ Date _____

Provost _____ Date _____

Board of Trustee Notification _____ Date _____