

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. A [checklist](#) is available to assist in the preparation of a proposal. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: Thomas W. Ilvento phone number 302-831-6773

Department: Food and Resource Economics (FREC) email address ilvento@udel.edu

Date: 11-30-11

Action: Dissolve the Operations Research M.S. Degree

(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 **12F**
(use format 04F, 05W)

Current degree **STAT M.S.**
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: **Decision Analysis Concentration, STAT M.S.**
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: **Decision Analysis Concentration for the STAT M.S. degree**
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: **remove current statement**
(**Must attach** your Graduate Program Policy Statement)

Graduate Program of Study **Statistics M.S.**
(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

Graduate minor / concentration: **Decision Analysis**

Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.

List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations)?

(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. The concentration uses existing courses.

Supply support letter from the Library, Dean, and/or Department Chair if needed
(all new majors/minors will need a support letter from the appropriate administrator.)

The matter was voted on by the department and accepted unanimously. This will involve making a new concentration for Operations Research in the AREC M.S. degree and the STAT M.S. degree, both programs in FREC (both proposed separately).

Supply a resolution for all new majors/programs; name changes of colleges, departments, degrees; transfer of departments from one college to another; creation of new departments; requests for permanent status. [See example of resolutions.](#)

WHEREAS, The M.S. and Ph.D. degrees in Operation Research have been officially disestablished in the Department of Food and Resource Economics (FREC) in the College of Agriculture and Natural Resources, and

WHEREAS, FREC expects to see continued interest in operations research skills in the market, and

WHEREAS, the FREC Graduate Committee has recommended folding the Operation Resource courses into a concentration into the AREC or STAT MS degrees., and

RESOLVED, that the Faculty Senate recommends approval of the Decision Analysis Concentration for the STAT M.S. degree beginning Fall 2012.

Explain, when appropriate, how this new/revised curriculum supports the 10 goals of undergraduate education: <http://www.ugs.udel.edu/gened/>

N/A

Identify other units affected by the proposed changes:

(Attach permission from the affected units. If no other unit is affected, enter "None")

We do not think it would affect any other program. All ORES courses will be continued.

Describe the rationale for the proposed program change(s):

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

With RBB the department no longer gets additional support and graduate student funding for the ORES M.S. or Ph.D. degrees. The number of faculty supporting this degree is down to less than 3 FTEs and the number of applicants has dwindled. In a separate approval form we recommended ending these two graduate programs.

We feel the best way to continue providing the courses and expertise for interested students is to fold the program into a concentration in the Agricultural and Resource Economics MS or the Statistics MS degrees. In this approach interested students will continue to take the same ORES courses while also taking foundation statistic courses. We believe that students with this concentration in STAT will be uniquely qualified for analytical work in a variety of data analysis applications, such as marketing, risk assessment, and general data analysis.

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 current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.) [See example of side by side.](#)

| STAT Requirements without concentration 33 Credits | Recommended Requirements for Decision Analysis for STAT 33 Credits |
|--|--|
| <p>STAT Core Required Courses 21 credits</p> <ol style="list-style-type: none"> 1. STAT 601 Probability Theory for Operations Research and Statistics 2. STAT 602 Mathematical Statistics 3. STAT 603 Vector Spaces and Optimization 4. STAT 611 Regression Analysis 5. STAT 615 Design and Analysis of Experiments 6. STAT 617 Multivariate Methods 7. STAT 641 StatLab | <p>STAT Core Required Courses 18 credits</p> <ol style="list-style-type: none"> 1. STAT 601 Probability Theory for Operations Research and Statistics 2. STAT 602 Mathematical Statistics 3. STAT 611 Regression Analysis 4. STAT 615 Design and Analysis of Experiments 5. STAT 617 Multivariate Methods 6. STAT 641 StatLab |
| <p>Secondary Courses (1 of 2) 3 Credits</p> <ol style="list-style-type: none"> 1. STAT612 Advanced Regression Techniques 2. STAT616 Advanced Design of Experiments | <p>Decision Analysis Concentration 9 Credits</p> <ol style="list-style-type: none"> 1. ORES 601 Survey Operations Research I or ORES 801 Math Programming with Economic Applications 2. ORES 602 Survey Operations Research II 3. ORES 603 Simulation Modeling and Analysis |
| <p>Optional Courses 9 credits</p> <p>Three optional STAT 600 level courses with the exception of: STAT 608, STAT 609, STAT 613, STAT 670, and STAT 671, which were designed for nonmajors.</p> <p>or</p> <p>1 course and 6 Thesis Credits (STAT669) 9 credits</p> <p>or</p> <p>1 course and 6 Internship Credits (STAT 664) 9 credits</p> | <p>Optional Courses 6 credits</p> <p>Two optional STAT 600 level courses with the exception of: STAT 608, STAT 609, STAT 613, STAT 670, and STAT 671, which were designed for nonmajors.</p> <p>or</p> <p>6 Thesis Credits (STAT 669) 6 credits</p> <p>or</p> <p>6 Internship Credits (STAT664) 6 credits</p> |

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

Department Chairperson _____ Date _____

Dean of College _____ Date _____

Chairperson, College 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 Affairs & International Programs _____ Date _____

Provost _____ Date _____

Board of Trustee Notification _____ Date _____

Revised 02/09/2009 /khs