11. Special Consideration

**College of Science**
- Department of Mathematics
- University Studies Degree
- Area of Concentration – Mathematics for Business
Texas A&M University
University Studies Degree
Proposed Area of Concentration

Name of Area of Concentration: __Mathematics for Business__________

Department: __Mathematics__________________________

College: ____Science_______________________________

Office responsible for advising students in this Area of Concentration:

a. Office Name/Location: ___Sue Geller/ Milner 128_____________________

b. Telephone Number: __845-7531________________________

c. Email: ___geller@math.tamu.edu________________________

The University Studies degree is an innovative interdisciplinary degree with an area of concentration and two minors, at least one of which is in a different college from that of the area of concentration. The degree serves two main groups of students: first, students who are in good academic standing (GPA of 2.0 or above) but who are unable to find or gain access to a major of interest and (b) students who specifically seek a broad interdisciplinary combination of coursework that is unavailable through existing degree programs.

The educational objective of the University Studies Degree is to provide students with an interdisciplinary academic degree that will prepare them for a successful life and career or for graduate school.

Please append two items to this sheet:

1. A statement that: A) describes the area of concentration and distinguishes it from existing majors, B) explains how this area of concentration would serve at least one of the two main groups of students cited above, and C) indicates how this area of concentration would promote the purposes of the university studies degree as described above. In the case of a College submission, please indicate support from the faculty.

2. The enclosed form for listing courses that will be used in the area of concentration that will be required as prerequisites, and will be used for university core curriculum requirements.

Reviewed and approved by:

[Signature]  08/29/07
Department Head/Program Director

[Signature]  8/29/07
College Undergraduate Curriculum Committee or UCC representative

[Signature]  8/29/07
AOC Dean of College

For Interdisciplinary Degrees Only:

Department Head/Program Director  Date

College Undergraduate Curriculum Committee or UCC representative  Date

AOC Dean of College  Date
COURSE FORM

There needs to be a minimum of 6 hours at 400-level and 36 hours of 300-400 level coursework in residence at Texas A&M University.

A. Select 21-24 hours from among the following courses for the area of concentration. If there will be more than 24 hours in the area of concentration please include a justification. Two approved writing courses will be required for the University Studies degree. The courses may be in the area of concentration or the minors. Please indicate writing courses in the area of concentration, if any, with a W following the course number (TAMU 400 W). If courses required for the area of concentration include a course or courses from outside the department of the area of concentration, please include a letter of support from the department(s) offering the course(s). Courses listed as part of the University Core Curriculum do not need a letter of support.

1. The following ___21___ hours of course work are required*

<table>
<thead>
<tr>
<th>Course Prefix &amp; Number</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 220 W</td>
<td>Fundamentals of Discrete Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Math 222 or 304</td>
<td>Linear Algebra Note: 222 will soon be 323</td>
<td>3</td>
</tr>
<tr>
<td>Math 308</td>
<td>Differential Equations</td>
<td>3</td>
</tr>
<tr>
<td>Math 325</td>
<td>The Mathematics of Interest</td>
<td>3</td>
</tr>
<tr>
<td>Math 425</td>
<td>The Mathematics of Contingency Claims</td>
<td>3</td>
</tr>
<tr>
<td>Stat 211</td>
<td>Principles of Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>Stat 212</td>
<td>Principles of Statistics II</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Select ___3___ hours from the following courses*:

<table>
<thead>
<tr>
<th>Course Prefix &amp; Number</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 442</td>
<td>Mathematical Modeling</td>
<td>3</td>
</tr>
<tr>
<td>Stat 408</td>
<td>Introduction to Linear Models</td>
<td>3</td>
</tr>
</tbody>
</table>

* If the Area of Concentration requires students to select courses from a list of pre-selected combinations, please duplicate this table; e.g. two course from column A, two courses from column B

3. Prerequisite courses not included in the University Core Curriculum or listed above:

<table>
<thead>
<tr>
<th>Course Prefix &amp; Number</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math 221 or 251</td>
<td>Calculus III</td>
<td>4</td>
</tr>
</tbody>
</table>

3 of 9 S
B. Student will select two minors (30-36 hours). One must be from outside the college offering the area of concentration.

C. Free electives (17-26 hours). If there will be fewer than 17 hours of free electives please include a justification in the preceding 2-3 page statement.

D. Specify courses in the University Core Curriculum\(^1\),\(^2\),\(^3\) that will be required for this area of concentration (43 hours). Please maintain as much flexibility as possible.

<table>
<thead>
<tr>
<th>Course Prefix &amp; No.</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English 104</td>
<td>ENGL 104</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>Math 151 or 171, 152 or 172</td>
<td>Calculus I and II</td>
</tr>
<tr>
<td>Natural Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual &amp; Performing Arts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social &amp; Behavioral Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Science</td>
<td>POLS 206 &amp; 207</td>
<td></td>
</tr>
<tr>
<td>International &amp; Cultural Diversity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinesiology</td>
<td>KINE 198 &amp; 199</td>
<td></td>
</tr>
</tbody>
</table>

NOTES: \(^1\) To be selected from the University Core Curriculum.

\(^2\) There is a graduation requirement which includes 6 hours of international and cultural diversity courses. Refer to the International and Cultural Diversity table for a list of acceptable courses. A course satisfying a University Core category, a college/department requirement, or as a free elective may be used to satisfy this requirement.

\(^3\) Completion in high school of two units of the same foreign language or one year of college work is required for graduation.
The Mathematics for Business area of concentration consists of courses that are designed to give students who are both interested in business and mathematically inclined a way to combine both interests. At present, an undergraduate degree from the Mays School of Business requires only very basic mathematics and leaves no mode to take more rigorous courses. On the other hand, a mathematics degree requires mathematics that is not particularly useful for business. This degree, with minors in business and a related field, will be more mathematically rigorous than a standard business degree and good preparation for graduate school in business as well as for working with the BA.

The Mathematics for Business area of concentration will serve both of the two main groups of students for which the University Studies degree is designed. Students in good standing may have trouble being accepted to the Mays School of Business and find this an attractive alternative. It is also good for students who want to be more firmly grounded in the mathematical underpinnings of business and so want a truly interdisciplinary degree that will be sought after in the business world and by graduate schools.
Aug 16, 2007

MEMORANDUM

TO: Dr. Michael T. Longnecker, Associate Department Head - STATISTICS

FROM: Dr. David R. Larson, Associate Department Head - MATHEMATICS

SUBJECT: Use of STAT 211 and 212 and 408 in a University Studies Degree Plan on Mathematics for Business from the College of Science

The Department of Mathematics in the College of Science is formulating a University Studies Degree Plan entitled "Mathematics for Business". Our proposal lists three courses offered by the Department of Statistics as among the requirements.

If there are no objections to our listing STAT 211, 212, 408 in the described University Studies Plan, please sign the consent below. Many thanks.

Approval to list STAT 211, 212 and 408 in the Mathematics for Business University Studies Plan in the College of Science:

[Signature]
Dr. Michael T. Longnecker
Associate Head - STATISTICS

[Signature]
Date
8-17-2007
Subject: FW: FW: Input on Planned University Studies Degree in CLSC
Date: Friday, September 14, 2007 3:12 PM
From: Timothy Scott <tim@science.tamu.edu>
To: <swilliams@oar.tamu.edu>
Conversation: FW: Input on Planned University Studies Degree in CLSC

As requested for Math Business US plan.

ts

Timothy P. Scott, Ph.D.
Assoc. Dean for Undergraduate Prgrms.
College of Science - Texas A&M University
517 Blocker Building
3257 TAMU
College Station, Texas 77843-3257
(979) 845-7362
(979) 845-6077 Fax

-----Original Message-----
From: Loudder, Martha [mailto:MLoudder@mays.tamu.edu]
Sent: Tuesday, July 31, 2007 12:05 PM
To: Timothy Scott
Subject: RE: FW: Input on Planned University Studies Degree in CLSC

It appears there is no other input. Carry on..

Marty

Dr. Martha L. Loudder | Associate Dean, Mays Business School
4113 TAMU | 440 Wehner Bldg. | College Station, TX 77843-4113
979.845.4711

A love of learning is caught, not taught.

-----Original Message-----
From: Timothy Scott [mailto:tim@science.tamu.edu]
Sent: Tuesday, July 31, 2007 12:03 PM
To: Loudder, Martha
Subject: FW: FW: Input on Planned University Studies Degree in CLSC

Marty:
Are we still waiting for more input from your College or Departments
before submitting?

ts

Timothy P. Scott, Ph.D.
Assoc. Dean for Undergraduate Prgrms.
College of Science - Texas A&M University
517 Blocker Building
3257 TAMU
College Station, Texas 77843-3257
(979) 845-7362
(979) 845-6077 Fax

-----Original Message-----
From: Sue Geller [mailto:geller@math.tamu.edu]
Hi Tim,

I didn't realize that Business had only one minor. I've now changed the justification to reflect that. I hope it is now acceptable.

Best,
Sue

--
Dr. Sue Geller
Director of Honors Programs in Mathematics
Professor, Veterinary Integrative Biosciences
Texas A&M University
College Station, TX 77843-3368
phone: 979-845-7531
fax: 979-845-6028
email: geller@math.tamu.edu
office: Milner 128

Timothy Scott wrote:
> Please note for Business University Studies Plan, Business only has one minor.
> 
> Timothy P. Scott, Ph.D.
> Assoc. Dean for Undergraduate Prgrms.
> College of Science - Texas A&M University
> 517 Blocker Building
> 3257 TAMU
> College Station, Texas 77843-3257
> (979) 845-7362
> (979) 845-6077 Fax

> *From:* Loudder, Martha [mailto:MLoudder@mays.tamu.edu]
> *Sent:* Sunday, July 29, 2007 10:28 AM
> *To:* Timothy Scott
> *Subject:* FW: Input on Planned University Studies Degree in CLSC
> 
> This is from Finance. Good catch on the "two minors." We only have the one.