To be adopted:
Proposed Changes in Requirements for BA and BS Degrees in Statistics including the Statistical Computing and Quantitative Management Options.

<table>
<thead>
<tr>
<th>Present:</th>
<th>Proposed:</th>
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<tbody>
<tr>
<td><strong>Major Requirements</strong></td>
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<tr>
<td><strong>Bachelor of Arts</strong></td>
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<tr>
<td>1. Core requirements (20 units)</td>
<td>1. Core requirements (24 units)</td>
</tr>
<tr>
<td>a) MATH 009A-MATH 009B-MATH 009C, MATH 10A</td>
<td>a) CS 10, MATH 009A, MATH 009B, MATH 009C, MATH 10A</td>
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<tr>
<td>b) Four (4) additional units in Mathematics.</td>
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<tr>
<td>2. Upper-division requirements</td>
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<td>a) Thirty-six (36) units of upper-division course work.</td>
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<td>(1) STAT 147, STAT 150, STAT 155, STAT 170A, STAT 170B</td>
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<td>(2) Sixteen (16) units chosen from STAT 127/BSAD 127, STAT 130, STAT 140, STAT 146, STAT 157, STAT 160A, STAT 160B, STAT 160C, STAT 171.</td>
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**Bachelor of Science**

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b) Four (4) additional units in Mathematics.

2. Upper-division requirements (52 units)
   a) Thirty-six (36) units of upper-division course work.
      (1) STAT 147, STAT 150, STAT 155, STAT 170A, STAT 170B

   (2) Sixteen (16) units chosen from STAT 127/BSAD 127, STAT 130, STAT 140, STAT 146, STAT 157, STAT 160A, STAT 160B, STAT 160C, STAT 171.

   b) Sixteen (16) units of additional course work chosen, with the approval of the major advisor; from Statistics courses numbered 121 and higher or from related fields.

Note: An introductory Statistics class such as STAT 40, STAT 048, or STAT 100A is strongly recommended.

b) Four (4) additional units in Mathematics.
   Chosen from MATH 23, MATH 113 or MATH 131

2. Upper-division requirements (52 units)
   a) Thirty-six (36) units of upper-division course work.
      (1) STAT 147, STAT 155, STAT 157, STAT 170A, STAT 170B

   (2) Sixteen (16) units chosen from STAT 127/BSAD 127, STAT 130, STAT 140, STAT 146, STAT 160A, STAT 160B, STAT 160C, STAT 171.

   b) Sixteen (16) units of additional course work chosen, with the approval of the major advisor; from Statistics courses numbered 121 and higher or from related fields.

Note: An introductory Statistics class such as STAT 40, STAT 048, or STAT 100A is strongly recommended.

Statistical Computing Option
The requirements for this option are in addition to the requirements for the BS in Statistics.

1. Lower-division requirements (42 units)
   a) CS 010, CS 012, CS 014

2. Upper-division requirements (20 units)
   a) STAT 157
   b) MATH 131
   c) Twelve (12) units of course work selected from
      (1) CS 141, CS 177

Statistical Computing Option
The requirements for this option are in addition to the requirements for the BS in Statistics.

1. Lower-division requirements (8 units)
   a) CS 012, CS 014

2. Upper-division requirements (16 units)
   a) MATH 113
   b) Twelve (12) units of course work selected from
      (1) CS 141, CS 177
      (2) MATH 112, MATH 120
(2) MATH 112, MATH 120

(3) STAT 198-I
d) MATH 135A, MATH 135B recommended.

(3) STAT 198-I
c) MATH 135A, MATH 135B recommended.

### Quantitative Management Option

The requirements for this option are in addition to the requirements for the BS in Statistics.

1. **Lower-division requirements (20 units)**
   a) ECON 003
   b) CS 008
   c) BSAD 010, BSAD 020A, BSAD 020B

2. **Upper-division requirements (16 units)**
   a) MATH 131
   b) Three courses from one area
      1. Marketing: BSAD 110, BSAD 113, BSAD 117
      3. Accounting: BSAD 163, BSAD 165A-165B, BSAD 168
      4. Management Information Systems: BSAD 170, BSAD 171, BSAD 173

### Justification:

STAT 150 "Basic Computer Methodology: FORTRAN Programming", is no longer being offered on a regular basis. Computational and programming skills students need is replaced by broader choices of languages such as C++, Splus, & SAS, which reflect current needs for the training of statistics major, therefore STAT 150 is deleted. CS 10 "Introduction to Computer Science for Science, Mathematics, and Engineering I", and STAT 157 "Statistical Computer Packages", are added as
requirements for the statistics major with a Statistical Computing Option. MATH 131 "Linear Algebra I", which is abstract linear algebra is replaced by MATH 113 "Applied Linear Algebra", which is a more relevant version of linear algebra for the statistics major and is the version required by the computer science program.

Approved by faculty:  Keh-Shin Lii, Chairman, 2/20/01
Reviewed and Approved by CNAS Executive Committee:  March 7, 2001
Approved by Committee on Educational Policy:  April 19, 2001