WOLFGANG POLONIK, Chair
Graduate Program in Statistics

RE: Graduate Program in Statistics revised degree requirements

Dear Wolfgang:

At its meeting of May 17 Graduate Council considered and approved the minor revisions to the degree requirements for the Statistics graduate program.

Enclosed is a copy of the new degree requirements with the Graduate Council approval date; please keep a copy for your files and for future revisions. The Office of Graduate Studies will also will keep a copy in its files and has posted them to your program pages at: http://www.gradstudies.ucdavis.edu/programs/program_detail.cfm?id=83.

Thank you for your efforts on behalf of graduate education.

Sincerely,

André Knoesen, Chair
Graduate Council

/aw

Enclosure

C:

EPC Chair Farnham
Director Jurado
Graduate Program Staff Scully
THE MASTER'S PROGRAM

1. Admissions Requirements

An undergraduate major in mathematics or statistics is typical for statistics graduate students, but is not required. However, because of the mathematical nature of some of the graduate coursework, students should be able to demonstrate good mathematical ability. The minimal background for entrance into the master's program is: a bachelor's degree with 3.0 overall grade-point average; one year of calculus; a course in linear algebra; facility with a programming language; and upper-division work in mathematics and/or statistics. The program does not accept part-time students.

2. Program of Study

The program of study will be developed and approved for each student by the Graduate Adviser in consultation with the student. This is a M.S. Plan II program (no thesis). A minimum of 36 units is required, of which at least 18 must be at the graduate level (according to university regulations).

3. Course Requirements

Required courses: (22 units)

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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<tbody>
<tr>
<td>STA131 A, B, C</td>
<td>4 each</td>
</tr>
<tr>
<td>STA135</td>
<td>4</td>
</tr>
<tr>
<td>STA 242 or 243</td>
<td>4</td>
</tr>
<tr>
<td>STA232 A, B</td>
<td>4 each</td>
</tr>
<tr>
<td>STA290 (twice)</td>
<td>1 each</td>
</tr>
<tr>
<td>STA390</td>
<td>2</td>
</tr>
<tr>
<td>STA401</td>
<td>3</td>
</tr>
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</table>

Required electives: (8 units)

Two courses selected from

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>STA 137</td>
<td>4</td>
</tr>
<tr>
<td>STA 138</td>
<td>4</td>
</tr>
<tr>
<td>STA 142</td>
<td>4</td>
</tr>
<tr>
<td>STA 144</td>
<td>4</td>
</tr>
<tr>
<td>STA 145</td>
<td>4</td>
</tr>
</tbody>
</table>

Other Electives: (6 units)

Further elective units at the upper division or graduate level may be taken in the following areas: (a) Statistics, (b) Fields of statistical application (e.g., economics, genetics), (c) Fields having applications in statistics (e.g., mathematics, computer science) in order to meet the minimum unit requirements.
The following courses can be used as substitutes:
   STA 231 A, B, C for STA131 A, B, C;
   STA 232C for STA135;
   and a data analysis project conducted under STA299 (independent study) for STA401.

If a required course for the MS program is substituted in this way, the substituting course cannot be used to simultaneously satisfy any other requirement.

4. Special Requirements

None.

5. Committees

   a. Admissions Committee: once applications and relevant materials are submitted to the program they are reviewed by the admissions committee, which consists of four to five faculty members. Once a decision has been made to admit or deny an applicant, the admissions committee chair forwards the committee’s recommendation to the Dean of Graduate Studies for approval. The application and fellowships deadline for entry in Fall of the next year is January 15.
   
   b. Advising Committee: there are four faculty members of the advising committee for the Master’s program, chaired by the Master Graduate Adviser.
   
   c. Comprehensive Examination Committee: the Chair of the Graduate Program in Statistics (GPS) will appoint an examination committee that will be responsible for preparing, administering and grading the examination. This committee will forward its recommendation to the GPS, which will make the final decision on each student.

6. Advising and Mentoring

The Master Graduate Adviser is identified by the Chair of the program from among the appointed Graduate Advisers, assists graduate students in developing a study plan, and has signatory authority for the Master’s and Ph.D. programs. A copy of the Statistics Mentoring Guidelines can be found at http://anson.ucdavis.edu/mentor.pdf.

7. Advancement to Candidacy

Plan II M.S. Candidates must file an Advancement to Candidacy form (http://www.gradstudies.ucdavis.edu/forms) prior to taking the written comprehensive examination in Winter of their second year of graduate studies. Candidates must have taken at least half of the required coursework for their degree requirements (18 units).

8. M.S. Comprehensive Examination

Every M.S. Plan II student needs to pass a comprehensive exam, taken at the end of the Winter quarter in the second year of graduate studies, to continue in the program. The M.S. Comprehensive Examination is a written examination, based on concepts and
methods in linear models, whose duration is about 3-4 hours. The examination will usually include the use of statistical software and may be administered in a computer lab.

The chair of the Graduate Program in Statistics (GPS) will appoint an examination committee that will be responsible for preparing, administering and grading the examination. This committee will forward its recommendation to the GPS, which will make the final decision on each student.

Should a student not pass the written comprehensive exam, they will be offered an oral examination at the end of the Spring quarter of the second year in graduate studies which will focus on the areas the student did poorly on in the written examination. If a student does not attempt the oral exam, it will be counted as a failure.

Failure to pass either the written or the oral exam by the end of the second year of graduate studies will result in a recommendation to the Dean of Graduate Studies for disqualification of the student from the graduate program.

For students first admitted to the Ph.D. who subsequently change degree objectives to the MS program, passing the pre-qualifying written exam is considered as passing the comprehensive exam.

9. Normative Time to Degree

The Normative Time to Degree for the Statistics M.S. program is six quarters (two years).

10. Typical Time Line and Sequence of Events

Course requirements are completed by the end of year two, while the M.S. Comprehensive Examination is attempted at the end of year one. Graduate Students must be enrolled in a minimum of 12 units every quarter. These 12 units can be made up of both required courses and 299 variable unit courses. In addition to the coursework outlined below, students will generally take STA 290.

The following would be a typical program for a student seeking a M.S. degree

**Year 1:**

**Fall**
- STA 131A
- STA 106 or 108
- STA 390

**Winter**
- STA 131B
- STA 141
- STA 106 or 108

**Spring**
- STA 131C
- STA 135
- MAT 167

**Year 2:**

**Fall**
- STA 232A
- STA 138
- STA 401

**Winter**
- STA 232B
- Statistics Elective
- Statistics Elective

**Spring**
- M.S. Comprehensive Exam
11. Sources of Funding.
Typically students are supported by TA-ships. However, *a priori* there is no guarantee for such a support unless stated explicitly in the offer letter sent to the students.

12. PELP & Filing Fee Status
Information about PELP and Filing Fee status can be found in the Graduate Student Guide: [http://www.gradstudies.ucdavis.edu/publications/](http://www.gradstudies.ucdavis.edu/publications/)

THE Ph.D. PROGRAM IN STATISTICS

1. Admission Requirements

An undergraduate major in mathematics or statistics is typical for statistics graduate students, but is not required. However, because of the mathematical nature of some of the graduate coursework, students should be able to demonstrate good mathematical ability. The minimal background for entrance into the master's program is: a bachelor's degree with 3.0 overall grade-point average; facility with a programming language; and upper-division work in mathematics and/or statistics; at least one semester or two quarters of advanced calculus at a level equivalent to MAT 25 and MAT 125A; and a quarter of linear algebra at a level equivalent to MAT 67. The program does not accept part-time students.

2. Dissertation Plan: Plan A

This degree is offered under Plan A which specifies a five member (minimum) dissertation/final examination committee and a final oral examination (defense of the dissertation); no exit seminar is required.

3. Course Requirements (52 units)

A Ph.D. student will select an area of specialization and will choose a major dissertation adviser from Graduate Program in Statistics (GPS) faculty working in that area, usually in the second or third year of study. The student's program of study will be developed by the student jointly with the Graduate Adviser. See section 4 for special requirements for the Biostatistics track.

A. Required courses (34 units total):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA231 A, B, C</td>
<td>4 each</td>
</tr>
<tr>
<td>STA232 A, B, C</td>
<td>4 each</td>
</tr>
<tr>
<td>STA 242 or 243</td>
<td>4 units</td>
</tr>
<tr>
<td>STA 401</td>
<td>3 units twice</td>
</tr>
<tr>
<td>STA290</td>
<td>1 unit for three quarters</td>
</tr>
<tr>
<td>STA390</td>
<td>2 units</td>
</tr>
</tbody>
</table>

B. Elective courses (18 units total):

In addition, five elective graduate courses (at least 18 units total), out of which at least four must be from Statistics.
C. Summary:
All coursework (a total of at least 52 units: 34 required and 18 elective units) and the program of study must be approved by the Graduate Adviser.

4. Special Requirements
The Biostatistics Track

The Graduate Program in Statistics offers the program Ph.D. in Statistics: Biostatistics Track as a subspecialty. Biostatistics may be understood as the application of statistical methods in the biological, medical, agricultural and environmental sciences, as well as the study of statistical methodology concerning problems and statistical areas originating from such scientific fields.

This subspecialty builds on the strong, diverse Statistics program and the UC Davis environment of highly regarded programs in Biological Sciences, Veterinary Medicine, and Agricultural and Environmental Sciences, as well as the School of Medicine. The collective research interests of the GPS faculty include a broad range of topics in Biostatistics.

Students who wish to enroll in the Biostatistics track are encouraged to do so as early as possible. Enrollment may be declared anytime prior to the Ph.D. Qualifying Exam. On the Ph.D. diploma, transcripts and the first title page of the Ph.D. thesis, the program will still be denoted as “Statistics”. Completion of this program will be recognized by a letter from the GPS Chair, stating that the student has completed all requirements of the Biostatistics track.

The requirements of Sections 1 and of Sections 4 through 13 of the Ph.D program apply to this track. Sections 2 and 3 are replaced by the following two paragraphs:

Program of Study

This degree is offered under Plan A which specifies a five member (minimum) dissertation/final examination committee and a final oral examination (defense of the dissertation); no exit seminar is required.

A Ph.D. student in this program will select an area of specialization within Biostatistics and will choose a major dissertation advisor from GPS faculty working in Biostatistics, usually in the second or third year of study. The student's program of study will be developed by the student jointly with the Graduate Adviser.

Required Courses (46 units):

STA 231 A, B, C (4 units each)
STA 232 A, B, C (4 units each)  STA 401 (3 units) twice,
STA 222 (4 units)  STA 290 (1 unit) for three Quarters
STA 223 (4 units)  STA 390 (2 units)
STA 224 (4 units)  STA 242 or 243 (4 units)
In addition, one life sciences course (non-quantitative biology course) at the upper division or graduate level (4 units) and one elective graduate course from Statistics or Biostatistics (at least 3 units). All coursework (a total of at least 53 units) and the program of study must be approved by the Graduate Adviser.

5. Committees

a. **Admissions Committee:** once applications and relevant materials are submitted to the program they are reviewed by the admissions committee, which consists of four to five faculty members. Once a decision has been made to admit or deny an applicant, the admissions committee chair forwards the committee’s recommendation to the Dean of Graduate Studies for approval. The application and fellowships deadline for entry in Fall of the next year is January 15.

b. **Advising Committee:** there are four faculty members of the advising committee, chaired by the Master Graduate Adviser. The Master Graduate Adviser is identified the Chair of the program from the list of appointed Graduate Advisers, assists graduate students in developing a study plan, and has signatory authority for the Master’s and Ph.D. programs.

c. **Qualifying Examination Committee:** the examining committee will be appointed in accordance with the policies of the Graduate Council and Office of Graduate Studies at the recommendation of the Graduate Adviser who consults with the student prior to making the recommendation. The major professor is not eligible to serve as chair of the examining committee.

d. **Dissertation Committee:** the student, in consultation with their major professor, nominates five qualified faculty members to serve on the Dissertation Committee. These nominations are submitted to the Office of Graduate Studies for formal appointment in accordance with Graduate Council Policy (DDB 80. Graduate Council B.1.). The major professor serves as Chair of the committee.

6. Advising Structure and Mentoring

The major professor is the faculty member who supervises the research and dissertation; this person serves as the Chair of the Dissertation Committee. The Master Graduate Adviser is identified by the chair of the program from among the appointed Graduate Advisers, assists graduate students in developing a study plan, and has signatory authority for the Master’s and Ph.D. programs. A copy of the Statistics Mentoring Guidelines can be found at [http://anson.ucdavis.edu/mentor.pdf](http://anson.ucdavis.edu/mentor.pdf).

7. Advancement to Candidacy

The student is eligible for advancement to Candidacy for the Ph.D. degree upon completion of all course requirements and after passing the Ph.D. Qualifying Examination, normally in the fifth quarter (or earlier).
8. Examination and Dissertation Requirements

A. Ph.D. Pre-qualifying Written Examination

The Ph.D. Pre-qualifying Written Examination will be given at the beginning of each Spring Quarter and also at the beginning of each Fall Quarter. Students in the Ph.D. program must attempt the exam in the Spring Quarter immediately after they complete both the STA 231AB and STA 232AB core course series. If a student does not attempt the examination at this time, it will be recorded as a ‘no pass’. Every Ph.D. student needs to pass the examination in a maximum of two attempts. In case of not pass at the first attempt, the second attempt must take place at the next time the examination is offered, and if a student does not attempt the exam at that time, it will be counted as a failure. Two ‘not passes’ of the examination will result in a recommendation to the Dean of Graduate Studies for discontinuation of the student in the Ph.D. program.

The Ph.D. Pre-qualifying Written Examination is a written exam with two parts: a theoretical part and an applied part. The duration of each part is about 3-4 hours. The applied part may be administered in a computer lab and may include the use of statistical software. Although the examination consists of two parts, it is considered one exam which must be passed in its entirety.

The Chair of the Graduate Program in Statistics (GPS) will appoint an examination committee that will be responsible for preparing, administering and grading the examination. This committee will forward its recommendation to the GPS, which will make the final decision on each student.

B. Ph.D. Qualifying Examination

The Ph.D. Qualifying Examination is an oral exam. The exam will be attempted as soon as the Ph.D. Pre-qualifying Written Examination has been passed and all required coursework for the Ph.D. degree in Statistics has been completed. In accordance with university rules, students are requested to take their qualifying examination before the end of the third year to remain eligible for academic appointments such as TA. The preparation for the exam will be done by working closely with a faculty mentor (independent study). The Ph.D. Qualifying Examination covers a special research topic assigned by an examining committee consisting of five faculty members. A forty-five minute presentation given by the student is followed by a question period which covers the special research topic as well as coursework in general. The examining committee will be appointed by Graduate Council at the recommendation of the graduate adviser who consults with the student prior to making the recommendation. The major professor is not eligible to serve as chair of the examining committee. Graduate Studies guidelines for Ph.D. Qualifying Examinations apply. A student who passes the Ph.D. Qualifying Examination is eligible for Advancement to Candidacy for the Ph.D. degree. The student must file the appropriate paperwork with the Office of Graduate Studies and pay the candidacy fee to be promoted to Candidacy for the Ph.D. degree.
C. Final Examination

Defense of the dissertation before the dissertation committee will constitute the final examination for the Ph.D. degree. The final examination must be passed within four years after promotion to Candidacy, unless a special exception is granted. Pass or no pass is determined by a vote of the dissertation committee. Title and abstract of the Ph.D. Defense presentation will be distributed to all faculty and students of the Graduate Program in Statistics, who are invited to attend the presentation portion of the examination. The subsequent question period is a closed session between the student and the committee.

D. Dissertation

The doctoral dissertation is an essential part of the Ph.D. program. A topic will be selected by the student, under the advice and guidance of a major professor (thesis adviser) and a dissertation committee chaired by the major professor. Students are encouraged to begin some research activity as early as possible during the second year of their graduate studies. The dissertation must contain an original contribution of publishable quality to the knowledge of statistics that may expand the theory or methodology of statistics, or expand or modify statistical methods to solve a critical problem in applied disciplines. Acceptance of the dissertation by three designated members of the dissertation committee follows Graduate Studies guidelines (Plan A with defense). The dissertation must be completed and submitted to the dissertation committee prior to taking the final examination.

9. Normative Time to Degree

The normative time to degree is four to five years.

10. Typical Time Line and Sequence of Events

Every fulltime student at UC Davis is required to take 12 units of coursework per quarter. In addition to the coursework outlined below, students will take Statistics 290 and generally will take additional electives later on, in consultation with their major professor.

The following track will be a typical program for a well-prepared student seeking a Ph.D. degree.

Year 1:

<table>
<thead>
<tr>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA 231A</td>
<td>STA 231B</td>
<td>STA 231C</td>
</tr>
<tr>
<td>STA 232A</td>
<td>STA 232B</td>
<td>STA 232C</td>
</tr>
<tr>
<td>STA 390</td>
<td>STA 141</td>
<td>STA 401</td>
</tr>
</tbody>
</table>

Ph.D. Pre-qualifying Written Exam
Year 2:

Fall       Winter       Spring
Statistics Elective       Statistics Elective       Research
Statistics Elective       Statistics Elective
Statistics Elective
STA 401       Ph.D. Qualifying Exam

Years 3, 4: Complete requirements for the Ph.D. degree, including Dissertation and Defense

11. Sources of Funding.

Funding for each student is specified when students are offered to join the program, and the funding itself can vary from student to student. An offer letter sent to the student will spell out the individual funding. Typically such funding consists in a combination of stipends and TA-ships. After the students have gained some more experience, they typically will also receive funding through a Graduate Student Researcher (GSR) position.

12. PELP, In Absentia, and Filing Fee Status

Information about PELP, In Absentia, and Filing Fee status can be found in the Graduate Student Guide: http://www.gradstudies.ucdavis.edu/publications/

13. Leaving the Program Prior to Completion of the PhD Requirements

Should a student leave the program prior to completing the requirements for the PhD, they may still be eligible to receive the masters if they have fulfilled all the requirements for that degree (see masters requirements). Passing the PhD pre-qualifying written exam is considered as passing the MS comprehensive exam.

Students may use the Change of Degree Objective form available from the Registrar’s Office: http://registrar.ucdavis.edu/PDFFiles/D065PetitionForChangeOfGraduateMajor.pdf
WOLFGANG POLONIK, Chair
Graduate Program in Statistics

RE: Graduate Program in Statistics proposal for an integrated degree program
(BS/MS)

Dear Wolfgang:

At its meeting of May 17 Graduate Council considered and approved your proposal to offer the BS/MS degree in Statistics. Council appreciated the thoroughness and clarity of the proposal.

Enclosed is a copy of the proposal with the Graduate Council approval date; please keep a copy for your files and for future revisions. The Office of Graduate Studies will also keep a copy in its files.

Thank you for your efforts on behalf of graduate education.

Sincerely,

André Knoesen, Chair
Graduate Council

/aw

Enclosure

c:
EPC Chair Farnham
Director Jurado
Graduate Program Staff Scully
Abstract

The Graduate Program in Statistics proposes a course of study that leads to both the Bachelors and Masters of Science degrees. This Integrated Degree Program is designed to be completed in five years.

Introduction to the Integrated Degree Program (IDP)

This program is intended for those students who seek to be employed as professional statisticians in government and industry. There is a high demand for statisticians, but the knowledge and skill achieved by those with a BS degree in Statistics are often not sufficient for the needs in the workplace. It is expected that this need will be met by those students with the background for a BS degree in Statistics and a full additional year of advanced courses in statistical methods.

The Graduate Program in Statistics proposes an Integrated Degree Program (IDP) that will lead to Bachelors and Masters degrees in Statistics. This program allows UC Davis undergraduates to enter and complete an M.S. degree in an accelerated time frame. In fact, this IDP in Statistics is designed to be completed in five years. It is available to UC Davis undergraduate students in the B.S. programs in Statistics who have strong academic records. Students are expected to have taken STA106, STA108 and STA141 before entering the program. A solid foundation in Mathematics is also necessary to successfully complete the program. This includes knowledge of calculus and linear algebra on the level equivalent to MAT21A-C, MAT22A, and MAT167, and for the B.S. general option advanced calculus and real analysis on the level of MAT25 and MAT125A, respectively.

The undergraduate advisor of the Statistics program will make an effort to identify promising students as potential candidates for the IDP. Students are also encouraged to proactively contact the Undergraduate Advisor to discuss their interest in the IDP. In particular Double Majors are strongly encouraged to do that as early as possible, in order to give sufficient time for necessary planning.

This is a Plan II Masters program, which requires the students to pass a Comprehensive Examination.

A. Admission Requirements:

The IDP program in Statistics is available to UC Davis undergraduates with strong academic records. Although the minimum major GPA requirement is 3.2 at the end of the junior year, students with demonstrated excellence in academic work (with a major GPA of 3.5 or above) are most likely to be admitted. For such students (with a major GPA of 3.5 or above) the GRE requirement of the application to Graduate Studies is waived. Before IDP students can move into the graduate phase, they must satisfy all the requirements for the B.S. degree in any of the three specific emphases: Applied Statistics, General Statistics, or Computational Statistics. Interested students are encouraged to consult the Undergraduate Advisor in Statistics in or before their junior year to discuss
eligibility and to ensure that all requirements will be met. In particular double majors are encouraged to discuss their interest with the Undergraduate Advisor as early as possible. Before applying they should also consult the Graduate Advisor in order to get a full understanding of the program. All applicants must submit GRE scores (unless waived; see above) and three letters of recommendation with their application. Students admitted into the IDP program need to have completed their BS requirements and maintain a major GPA of 3.2 before they can continue to the graduate phase in the year after being admitted to the IDP program.

B. Application Process:
Undergraduate students at UC Davis must complete and submit the Statistics IDP form along with the supporting documents during the last quarter of their junior year. Successful applicants will thus enter the IDP in the first quarter of the senior year.
In addition, applicants must apply to the Department and to the Office of Graduate Studies (deadline May 31) according to the general procedures described for the Graduate Program in Statistics at [http://www.stat.ucdavis.edu](http://www.stat.ucdavis.edu). However, the GRE is waived for students with a major GPA of 3.5 or above.

Before applying to the IDP program, students are strongly advised to consult both the undergraduate advisor and the graduate advisor.

C. Advising:
IDP students are required to meet with the undergraduate advisor at the beginning of their senior year after being admitted to the program, to discuss and develop the academic plan for the undergraduate phase of the program. To monitor progress, the student is also required to meet with the undergraduate advisor once every subsequent quarter.

It is highly recommended that students concurrently also meet the graduate advisor to discuss the academic plan for the graduate phase of the program.

Once in the graduate phase, the students are required to meet the graduate advisor at the beginning of each quarter in order to discuss and to develop the academic plan and to monitor progress, respectively.

D. Course Requirements:
The M.S. under the IDP requires 36 units of course work at the upper division and graduate level. At least 18 units of graduate coursework in Statistics are required for this program. Up to a maximum of 12 units taken in the undergraduate phase of the program can be transferred to the graduate phase, provided that these units have not been used towards fulfilling the B.S. requirements.

The course requirements for IDP are given below:
- Statistical Computing / Computational Statistics: STA 242 or STA 243 (4 units)
- Probability Theory & Mathematical Statistics: STA131A-131B-131C (4 units each)
- Multivariate Data Analysis: Statistics 135 (4 units)
- Seminar in Statistics: STA290 (taken twice, 1 unit each)
- Two elective from
  - Time Series Analysis: STA 137 (4 units)
  - Analyzing Categorical Data: STA 138 (4 units)
  - Reliability: STA 142 (4 units)
  - Sampling Theory of Surveys: STA 144 (4 units)
  - Bayesian Statistical Inference: STA 145 (4 units)
  - any Statistics graduate course (at least 3 units)
- Methods in Teaching Statistics: STA 390 (2 units, taken once at the first available offering)
- Methods in Statistical Consulting: STA 401 (3 units, once during program)

The following substitutions of graduate level courses for required upper division courses are permitted.
  - STA 231ABC (4 units each) for STA 131ABC (4 units each)
  - STA 232C (4 units) for STA 135 (4 units)
  - a data analysis project conducted under STA 299 (independent study) for STA 401. (3 units)

If a required course for the BS/MS program is substituted in this way, the substituting course cannot be used to simultaneously to satisfy any other requirement.

To fulfill the unit requirements, further courses at the upper division or graduate level may be taken in the following areas: (a) Statistics, (b) Fields of statistical application (e.g., Biostatistics, Economics, Genetics), (c) Fields having applications in statistics (e.g., Mathematics, Computer Science).

It can be expected that students in the IDP program that have completed their B.S. degree will have taken most or even all of the undergraduate level classes. Thus, the course work in the graduate year will mainly consist in taking required and optional graduate level courses, along with STA 390 and STA 401. A data analysis project conducted under the variable unit course STA 299 is highly recommended.

Sample course plan of Statistics classes taken in senior year and graduate year:

<table>
<thead>
<tr>
<th></th>
<th>Senior Year</th>
<th>5th Year/Grad Year</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>STA 131A; 138</td>
<td>STA 232A; 290; 390</td>
</tr>
<tr>
<td><strong>Winter</strong></td>
<td>STA 131B</td>
<td>STA 242 or 243; 232B; 290</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comprehensive Exam</td>
</tr>
<tr>
<td><strong>Spring</strong></td>
<td>STA 131C; one of STA 135, 137, or 145; 205</td>
<td>one of STA 137, 135, or 145; 401, 299</td>
</tr>
</tbody>
</table>

E. Residence and Scholarship Requirements

1. Academic Residence Requirement: Candidates for the MS degree must be in academic residence as graduate students for the equivalent of at least three academic quarters. A student is in academic residence when enrolled in at least four units of graduate or approved upper division courses, including research.
Two regular six-week summer sessions may be counted as the equivalent of one quarter, provided that full registration is maintained. All full time students must be registered for at least 12 units each quarter.

2. **Satisfactory and Unsatisfactory Grading Options:** Students working toward an MS degree are not permitted to take any courses which are normally offered for a letter grade, on an S/U basis.

3. **Standards and Scholarship:** Courses in the 100 and 200 series in which the student receives grades “A”, “B” or “S” may be counted in satisfaction of the requirements for the MS degree. A course in which a student receives a “C+” or lower cannot be used to satisfy the unit requirement for the MS degree but will count in determining the grade point average. Candidates must maintain a grade point average of 3.0 or higher in all upper division and graduate courses during their residence as graduate students at the University of California. Required letter graded courses cannot be taken as “S/U” or “P/NP”, respectively. With the approval of the graduate advisor, a student may be permitted to repeat a course for credit in accordance with campus regulations, which allow graduate students to repeat up to nine units of courses in which a grade of C, D, F or U was received.

4. **Senior Year Decision:** At the end of the fourth year, IDP students have the option of filling out a BS graduation form and leaving the program with a BS degree if all BS requirements have been met.

**F. Committees**

The following standing committees are appointed by the Chair of the Department of Statistics in consultation with the Executive Committee of the Graduate Program in Statistics (GPS). Members of these standing committees will represent the diversity of GPS.

1. **Educational Policy Committee:** The Educational Policy Committee consists of three faculty members. The Undergraduate Advisor of the Department of Statistics is an ex officio member of this committee. The regular term of a committee member is two years. The committee reviews petitions from students in the integrated B.S./M.S. program and makes policy recommendations to the program.

2. **Admissions Committee:** The Admissions Committee consists of five faculty members. The Undergraduate Advisor of the Department of Statistics is an ex officio member of this committee. The regular term of a committee member is two years. The committee reviews applications to the program and makes recommendations for admissions. Recommendations are forwarded to the Dean of Graduate Studies for final approval of admissions. Notifications of admission decisions will be sent by Graduate Studies.
3. **Graduate Advising Committee**: This committee consists of four members, chaired by the Master Graduate Adviser. The regular term of a committee member is two years.

4. **Comprehensive Examination Committee**: This is a Plan II program and the committee consists of three faculty members who prepare and administer the MS Comprehensive Examination (cf. Section M). The committee will evaluate the student’s performance in the exam and forward its recommendations to the GPS faculty who will make a final decision on whether to pass a student.

**G. Advancement to Candidacy**: The candidate is expected to advance to candidacy in the graduate phase of the IDP during the quarter when at least half of all coursework unit requirements are completed and no later than the quarter when all coursework requirements will be completed. The *Candidacy for the Degree of Master* application can be found at [www.gradstudies.ucdavis.edu](http://www.gradstudies.ucdavis.edu). The application must be routed through the Statistics Graduate Secretary for approval by the Graduate Advisor and then filed with Graduate Studies. A completed form includes a list of courses the student will take to complete degree requirements. If changes must be made to the student’s course plan after he/she has advanced to candidacy, the Graduate Adviser must recommend these changes to Graduate Studies.

**H. Advising and Mentoring**: The Graduate Advisor will assist the student in developing a program of study.

**I. BS/MS Program Timeline**: In order to make satisfactory progress, full-time students in the program should follow a timeline similar to the one given below.

- **Junior Year or earlier**: Student, upon consultation with the Statistics Undergraduate Advisor plans an academic program leading to the BS degree in Statistics, taking into account a possible admission to the IDP program. Upon consultation with both the Statistics Undergraduate and Graduate Advisors the eligible student applies to the IDP by May 31.
- **Qualified students are admitted to IDP the same year.**
- **Senior Year**: Student completes the B.S. degree in statistics and is concurrently planning and growing into the graduate phase. To this end, the student is requested to meet the graduate advisor every quarter to discuss possible graduate classes.
- **After completing the B.S. degree the student seamlessly moves into the graduate phase of the program.**
- **First quarter Graduate Year**: Student develops a program of study in consultation with the Graduate Advisor.
- **End of second quarter Graduate Year**: Student takes the MS Comprehensive examination.
- **Third quarter Graduate Year**: Student completes the MS requirements.
J. Planned Educational Leave Program (PELP): All PELP applications must be routed through the Graduate Coordinator for approval of the Graduate Advisor. Students may not be on PELP status for more than three academic quarters. In the event that PELP expires, it will be necessary to file a readmission application.

K. Filing Fee Status: Students are not eligible for filing fee status.

L. Readmission: Not applicable since filing fee status is not available.

M. Comprehensive Examination Requirement: Every IDP student must pass a comprehensive exam, taken at the end of the Winter quarter in their graduate year of the IDP program. The MS Comprehensive Examination is a written examination, which is testing the students on the core material. Relevant material is based on concepts and methods in linear models, and the duration of the exam is about 3-4 hours. The examination will usually include the use of statistical software and may be administered in a computer lab. The chair of GPS will appoint an examination committee that will be responsible for preparing, administering and grading the examination. This committee will forward its recommendation to the GPS, which will make the final decision on each student. Should a student not pass the written comprehensive exam, he/she will be offered an oral examination at the end of the Spring quarter (in the same year the written exam was taken) which will focus on the areas the student did poorly on in the written examination. If a student does not attempt the oral exam, it will be counted as a failure. Failure to pass either the written or the oral exam by the end of the first year of graduate studies will result in a recommendation to the Dean of Graduate Studies for disqualification of the student from the graduate program.

N. Graduation: Students who successfully complete the program will receive both the BS and MS degrees. It is intended that students will complete this program in five years. A student who decides on a different career goal may apply for transition into the Ph.D. program in Statistics. In such a case the student will consult with the Graduate Advisor and the Graduate Admissions Committee.
UNIVERSITY OF CALIFORNIA, DAVIS  
Department of Statistics  
BS/MS Integrated Degree Program  
Master of Science Plan II Program of Study

Student Name: ________________________________   Quarter of Completion: _____________________

1. Graduate Courses (at least 18 units)

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Total

2. Research (299) – at most 3 units.

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3. Seminar (290 to 297) – at most 2 units.

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Total

4. Additional courses – upper division technical or graduate courses (excluding 290 seminar series and 299).

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Total

Total Number of Units in items 1-4 ________ (36 units required)

______________________________  ________________________________  ____________
Student Signature                Graduate Advisor Signature                Date