

ASSESSMENT OF THE MASTERS PROGRAM IN STATISTICS  
Summer 2009

EXIT INTERVIEW: We received one UAF MS Program Graduate Survey from a student who graduated in the Spring of 2009 (there were two graduates this year, one who finished during the previous summer and one who finished in the Spring Semester). The survey is in Appendix One. The Summer 2008 graduate has a position at NOAA, while the Spring 2009 graduate is the biometrician in the Sports Fish section (Fairbanks) of the Alaska Department of Fish and Game.

POST-GRADUATE INTERVIEW/ EMPLOYER INTERVIEW:

Information from the questionnaire (received from one student) is attached as Appendix One. Authorities from the Alaska Department of Fish and Game have been working with the Dept. of Mathematics and Statistics to formalize the internship program. During these sessions, we have discussed the Statistics Program. We discuss these in the Curriculum/Courses section below.

FACULTY EVALUATION OF EXAMS AND PROJECTS:

The 2008 comprehensive exams

M.S. projects

PROJECTS:

Summer 2008 graduates:

Hui Liu           Comparative study of statistical models for describing copepod growth rates using precise data and data with growth stage errors.

Spring 2009 graduates:

Jiaqi Huang     A Bayesian Mixture Model for Estimating Chinook Salmon Abundance in the Chena River Using DIDSON Sonar Data.

TIME TO COMPLETION: All students in the program seem to be on track to graduate at the end of their second year.

CURRICULUM/ COURSES: Because of discussions with Alaska Department of Fish and Game biometrician, we are looking at a redesign of several courses: a new book in STAT653 and changing the contents of the Distribution-Free Statistics course and the Time Series course. In particular, there are now three different time series courses available to UAF students. One, through Physics, is heavily mathematical and focused on large data sets and spectral methods (the classical approach to time series analysis). A second one, through distance delivery from UAF Fisheries in Juneau, is oriented toward forecasting, Kalman filters, etc. It would be efficient to let Juneau continue to offer time series and move our course in a different direction, perhaps oriented more toward modeling, repeated measures, trend models, and, in general, have it directly focus on areas of most use to Biology, Wildlife and Fisheries students at UAF. Finally, we have been delivering the core (STAT651, 652, 653) courses to Juneau via distance delivery. We should continue doing so, along with delivering additional courses. The recent approval of the Graduate Certificate in Statistics may increase the demand for statistics courses.

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**UAF Statistics MS Program Graduate Survey Spring 2009**

As part of UAF's outcomes assessment process we respectfully request that you complete the following survey. The results will be kept confidential and only summary statistics across respondents will be made public. The results are used to improve the quality of the program and to satisfy institutional accreditation requirements. If you have any concerns about the survey, please feel free to contact us.

UAF Statistics MS Program Graduate Survey Spring 2009

1. Please respond to each of the following statements with

1 = strongly agree            2 = agree            3 = neutral            4 =  
disagree            5 = strongly disagree

Please feel free to write comments on any of these questions.

- a) I would recommend the statistics MS degree program to others. 1
- b) The quality of instruction by statistics faculty is excellent. 1
- c) The core MS statistics courses (STAT 651, 652, 653) provided a solid foundation.  
2
- d) I had access to modern computing equipment and statistics software. 1
- e) Statistics faculty members were accessible and involved in my education. 1
- f) I learned a lot in completing the MS project. 1
- g) Sufficient elective courses were offered. 2
- h) Statistics elective courses were at an appropriately challenging level. 2
- i) Degree requirements were well communicated. 1
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2. Please provide a narrative response to each of the following:

- a) How should the statistics MS program be changed to improve it?

It would be great if the department could provide us with some opportunities to go to statistical conferences or workshops to enrich our experience and get connected to the other statisticians or specialists. I would like to see more mathematically challenging courses in the program.

b) What components of the statistics MS program worked particularly well?

I liked the statistical core courses (STAT 651, 652,653). They worked well to add to my understanding of fundamental theories of statistics. I really enjoyed the statistical consulting seminar, in which I learnt a lot about the application problems and their appropriate solutions. The faculty members are helpful whenever you need them. The student and professor ratio is great.

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APPENDIX TWO: (list of graduates):

1998: Gordon Bower, Pam McNeley, Alex Prichard, Bob Sutherland, Brian Taras

1999: Arny Blanchard, Peter Dillingham, Julie McIntyre, Franz Mueter

2000: Gwen Gruenig

2001: Kelley Cadman, Xinxian Zhang

2002: Helen Nute

2003: Anton Antonovich, Colleen Ianuzzi, Randy Mullen

2004: Sherri Dressel, Xiang Fang, Joseph Liddle, Mark Olson, Yongmei Qin

2005: Randolph Phillips

2006: Xi Chen

2007: Shuo Jiao, Yingte Zhang

2008 [Summer 2007]: Kun Chen, Steve Houston, Alan Shay, Xian Yu

2008: John Bannister, Jim Jasper, Jennifer Kreinheder

2009: Jiaqi Huang, Hui Liu

Due to graduate 2010: Anna-Marie Benson, Lisa Beattie, Luosha Diou, Feiran Jiou, Jason Waite.

Due to graduate 2011: Frank Ryan, Joe Shanberger, Adam Watson