Program Review Report
For
MS in Statistics
2005-06

Contents

3. Student projects must be written in a scientific journal format. This recently implemented requirement has resulted in one student publishing a paper and another submitted. Both papers were coauthored with faculty members. It is very uncommon for MS students in statistics to publish papers so we view our recent success as a good indication of project quality.

4. The MS program requires four core courses and a selection of electives. Many of the elective courses commonly have a majority of non statistics graduate students enrolled. This is the case, for example, in categorical statistics, spatial statistics, time series, and [redacted]

[redacted]

terms of required courses only utilized by our majors. Furthermore, other programs, [redacted]

Needs

We need to recruit and retain well qualified statistics faculty.

An organized sustained student recruiting effort is needed. Students hear of the statistics

MS program by word of mouth or find it on the web. This program has the capacity for additional students. Thus, we should grow this program. There are two limiting factors

for growth in student numbers; 1) space for graduate students and 2) research or teaching assistantships. We have had great success in finding RA funding for previous students

To better balance course loads among semesters we changed the offering frequency of

Because only Biology and Wildlife faculty members had taught, STAT 680, Data Analysis in Biology, which was cross listed with BIO 680 and WLF 680, we dropped STAT 680 after discussion with the Biology and Wildlife faculty effective fall 2004

Appendix 1 – List of MS Statistics Graduates by Year

1998

- Bob Sutherland works as a Biometrician for the Alaska Department of Fish and Game in Anchorage, AK
- Brian Taras, works as a Biometrician for the Alaska Department of Fish and Game in Fairbanks, AK
- Pam McNeley, unknown
- Alex Prichard is employed as a Biometrician at Alaska Biological Research in Fairbanks, AK
- Gordon Bower worked at the Geophysical Institute, UAF and then took a job in Juneau.

1999

- Amy Blanchard is employed as marine ecologist and environmental statistician at

2003

Randy Muller is employed as a Biometrician for the Alaska Department of Fish

and Game in Juneau, AK.

- Colleen Ianuzzi works for Institutional Research at the University of Alaska Statewide Office in Fairbanks, AK.
- Anton Antonovich is employed as a Biometrician for the Alaska Department of

Fish and Game, Anchorage, AK

- Xiang Fang worked for the Water and Environmental Research Center Institute of Northern Engineering and UAF's Institutional Research for two years then in

Appendix 2 – MS Statistics Outcomes Assessment Plan (Revised, Nov. 2003):

statistical theory and methods

Goal: To assure that our students have the skills to successfully compete for and excel in jobs in applied statistics. Our students

	Written and oral part of the comprehensive exam.	statistics faculty, oral assessed by graduate

	Follow the careers of graduates. Survey graduates to see if curriculum was satisfactory	continually maintained by the statistics program coordinator.

APPENDIX 3 – 2005 Outcomes Assessment Summary

MEMORANDUM

To: Susan Henrichs
Dean of the Graduate School and Vice Provost for Instructional Affairs

From: Dana Thomas (Department Chair)
Ron Barry (Program Coordinator)
Department of Mathematics and Statistics

[redacted]

SUBJECT: Progress Report on the MS Program in Statistics

[redacted]

programming skills in applied and core statistics courses 2) Applied statistics portion of the comprehensive exam 3) Report by the student's advisor on student's research and consulting outside of class. 4) Student Project review 5) Student's achievement in the statistical consulting seminar 6) Written and oral part of the comprehensive exam. 7) Report by the student's advisor	3) YES 4) YES 5) NO, except for grades. 6) YES 7) NO

ASSESSMENT OF THE MASTERS PROGRAM IN STATISTICS
Fall 2005

EXIT INTERVIEW:
We gave the College of Science, Engineering and Mathematics Exit Interview for

valuable. Our students have generally been successful in obtaining jobs in statistics, with

employment status of the other two graduates). Our program was originally instigated to help supply biostatisticians for the State and Federal government in Alaska, and it has continued to fill that role, with four of the nine recent graduates taking positions as biometricians with the Alaska Department of Fish and Game. In fact, about a third of all of the students to ever graduate from the MS program in Statistics have biometrician positions in the Alaska Department of Fish and Game. One of our graduates has

completed a PhD in Statistics. This student thought that the MS program was a good preparation for doctoral study.

EMPLOYER INTERVIEW:

We have regular conversations with managers with hiring authority in the Alaska

virtually finished at the beginning of their last summer. Time to completion has been good.

ADDITIONAL ASSESSMENT:
We have not yet convened an advisory board for the M.S. Statistics program. We suggest that the advisory board be dropped from the assessment. Formalizing the employer interview should suffice to give us the same information, as university Institutional

APPENDIX 4 – 2003 Outcomes Assessment Report

MEMORANDUM

To: Susan Henrichs
Dean of the Graduate School and Vice Provost for Instructional Affairs

From: Dana Thomas (Department Chair)
Ron Barry (Program Coordinator)
Shunpu Zhang
Devin Johnson
[redacted]

DATE: October 03, 2003

SUBJECT: Progress Report on the MS Program in Statistics

Attached is our assessment plan on MS Program in Statistics. Also attached are the 2002

2003-assessment report on the MS Program in Statistics and a feedback email from a recent graduate of the MS Program in Statistics. The assessment report summarizes comments from other graduates contacted by phone and/or email.

Here is a list of the items in our assessment plan and the status of implementation.

student's research and consulting outside of class.	

ASSESSMENT OF THE MASTERS PROGRAM IN STATISTICS
Summer 2003

EXIT INTERVIEW:
We gave the College of Science, Engineering and Mathematics Exit Interview for Graduating Masters and Ph.D. Students to five students who had completed their degree program in the Spring of 2003. The results are in the Table 1 (appendix). The graduate student's opinion of the program was quite high, with all students either agreeing or strongly agreeing with "I would enthusiastically recommend my degree program to another student", " I learned a lot at UAF", "I feel prepared for the next step in my professional life", "The quality of instruction in my department is high" (all strongly

FACULTY EVALUATION OF EXAMS AND PROJECTS:

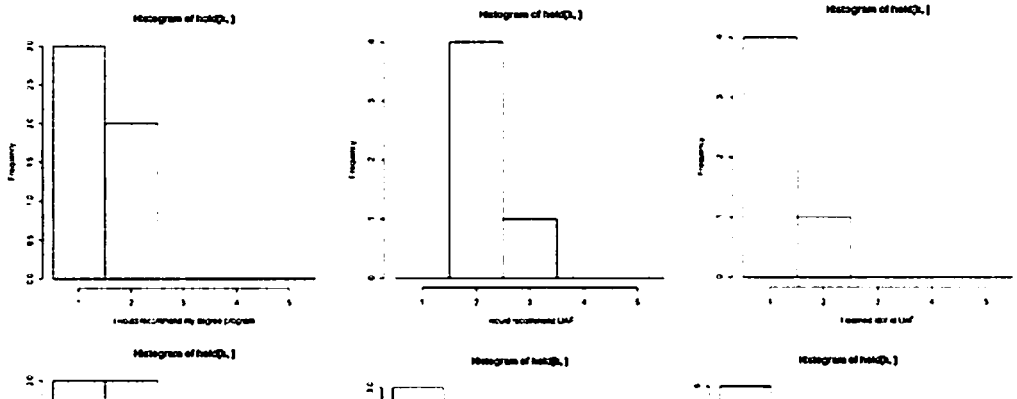
The faculty of the Statistics Program, Dept. of Mathematical Sciences, met in September 2003 to discuss the quality of graduate projects and comprehensive exams written to that point.

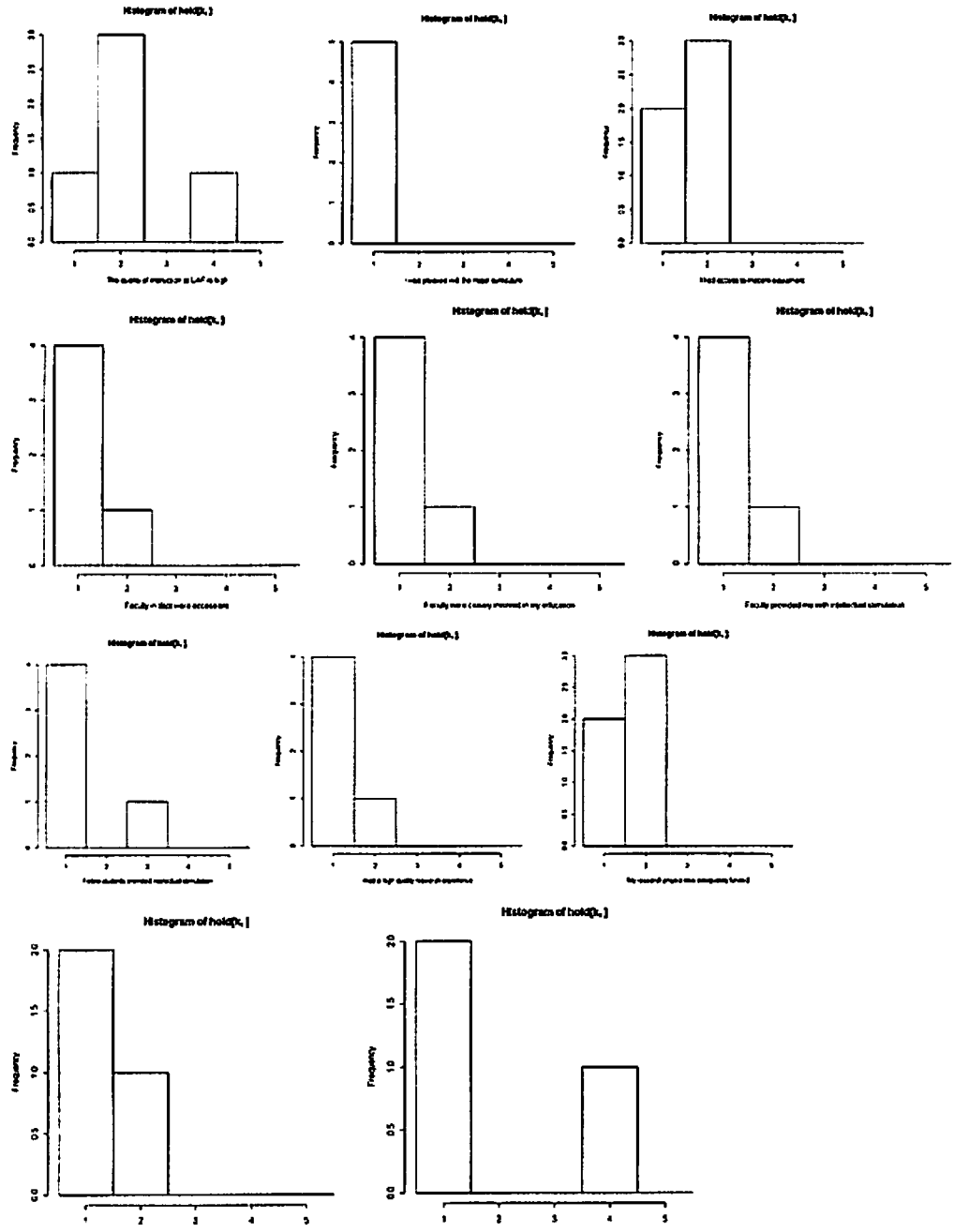
1 Exams were variable in quality, with the lowest scores going to graduate students who

APPENDIX:

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

I would recommend my degree program	1	2	2	1	1
I would recommend UAF	2	2	2	3	2
I learned alot at UAF	2	1	1	1	1
I enjoyed myself	2	2	3	1	1
I feel prepared for the next step in prof life	2	1	1	2	1
The quality of instruction in dept is high	1	1	1	1	1
The quality of instruction at UAF is high	2	2	1	4	2
I was pleased with the major curriculum	1	1	1	1	1
I had access to modern equipment	1	2	1	2	2
Faculty in dept were accessible	2	1	1	1	1
Faculty were closely involved in my education	1	1	1	2	1
Faculty provided me with intellectual stimulation	1	1	1	2	1
Fellow students provided intellectual stimulation	1	1	1	3	1
I had a high quality research experience	1	1	1	1	2
I was well informed of my duties	2	NA	NA	1	1
The amount of assigned work was appropriate	1	NA	NA	4	1





E-mail from Julie McIntyre (Smith) giving feedback on MS program in Statistics: March

Julie:

Thanks for the note. You were a great candidate for the position here so I am sorry to see you take another job. However, I think a position at Carnegie Mellon will be great for your career and look forward to your application here when we have another opening. I certainly wish you the best for your position there.

Thank you also for the information on the two other books. I am familiar with and have Bickel and

I have thought for some time that we could strengthen our masters program with additional linear models

nt of Majors By Year

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		Fall	Spring	Fiscal Year	Fall	Spring	Fiscal Year	Fall	Spring	Fiscal Year	Fall	Spring	Fiscal Year	Fall	Spring	Fiscal Year
	Degree	2000	2001	2001	2001	2002	2002	2002	2003	2003	2003	2004	2004	2004	2005	2005
atics	BA	5	3	6	7	7	9	4	5	6	9	6	9	5	4	7
	BS	25	24	36	26	35	36	39	38	45	33	34	41	37	30	42
	MS	4	3	6	6	7	8	6	3	8	2	1	4	6	5	6
	PHD	1		1				1	2	2	4	5	5	6	6	6
s	BS	2	2	2	1		1	1	1	1	1	1	1	1	1	1
	MS				4	5	7	9	9	10	4	5	8	4	5	5
r - atics	BI													2	2	3
r - Statistics	BI										1	1	1	1	1	1
otal		37	36	49	44	55	61	60	58	72	53	52	69	58	51	69

[redacted]

Appendix 7 – Degrees Awarded By Year

UAF Program Review 2005-06
College of Natural Science and Mathematics
Degrees Awarded

Department	Degree	Major_Description	1999	2000	2001	2002	2003	2004	2005
CNSM Mathematical Sciences	BA	Mathematics			1		1	1	2
	BS	Mathematics	5	8	8	3	9	10	8
		Statistics	1	1	1	1	1	1	
	MS	Mathematics	1				4	1	2
		Statistics				1	3	5	1
CNSM Mathematical Sciences Total			7	9	10	5	18	18	13

Year

Enrollment (sections; J = Juneau) by semester 2000-2005

Spring 2002	Fall 2002	Spring 2003	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005
114(2)	104(2)	124(2)	125(2)	123(2)	104(2)	123(2)	106(2)
46		41		47		44	31
19	34	27	19	36	31	28	27
	28		20		16		15
12				7			
10							
	9				11		
13				11			
		13				12	
2				4			
			11				8
	6		6		7		6
		7				6	
9				8			
		7		1		1	
							10(J)