ace of Student Learning 2019-2020				
Department of Mathematics				
049 Master of Arts in Mathematics				
Kanita Ducloux (2019-2020) & Hope Marchionda (current)				

Use this page to	list learning outcomes, measurements, and summarize results for your program. Detailed information must be completed in th	e subsequent	pages.				
Student Lean	rning Outcome 1: Students will be able to communicate mathematics in a written form at a level commensur	ate with that	t of students				
completing a	master's degree.						
Instrument 1	Discussion boards, regularly assigned quizzes, a midterm, and a final from MATH 501, Introduction to Prol	pability and	Statistics I.				
	A score of 8 or higher on a 10-point multipart rubric will demonstrate students' ability to communicate math	hematically.	We expect				
	at least 75% of students to meet this learning outcome.						
Based on your	results, circle or highlight whether the program met the goal Student Learning Outcome 1.	Met	Not Met				
Student Lean	rning Outcome 2: Students will be able to write proofs of theorems in mathematics.						
Instrument 1	Assessments from MATH 503, Introduction to Analysis. A score of 8 or higher on a 10-point multipart rub	ric for probl	ems given				
	on assessments will indicate that students are able to use multiple strategies in problem solving situations.	We expect a	t least 75%				
	of students to meet this learning outcome.						
Based on your	results, circle or highlight whether the program met the goal Student Learning Outcome 2.	Met	Not Met				
Student Lean	rning Outcome 3: Students will demonstrate their capacity to use multiple strategies and appropriate technol	logy to apply	У				
mathematics	in problem solving situations and will justify their solutions with sound logic.						
Instrument 1	Assessments from MATH 512, Geometry from an Advanced Perspective. A score of 8 or higher on a 10-po	oint multipa	rt rubric will				
	demonstrate students' ability to choose appropriate strategies, including the use of technology, to solve prob	lems and ju	stify their				
	solutions. We expect at least 75% of students to meet this learning outcome.						
Based on your	results, circle or highlight whether the program met the goal Student Learning Outcome 3.	Met	Not Met				
Student Lean	rning Outcome 4: Students will demonstrate their capacity for collaboration in the mathematics classroom a	s a learner a	nd as a				
teacher.							
Instrument 1	Discussion boards from MATH 511, Algebra from an Advanced Perspective. A score of 8 or higher on a 10	0-point mult	ipart rubric				
	will demonstrate students' ability to collaborate when working towards solutions to problems. We expect a	t least 75% o	of students				
	to meet this learning outcome.						
Based on your	results, circle or highlight whether the program met the goal Student Learning Outcome 4.	Met	Not Met				
Program Summ	nary (Briefly summarize the action and follow up items from your detailed responses on subsequent pages.)						
The MA in M	fathematics will be undergoing a program change during the 2020-2021 academic year. This program revis	ion will inc	lude possible				
course revisio	course revisions to exiting courses and the development of new courses to align to the current needs of teachers in the region.						
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Student Learning Outcome 1						
Student Learning Outcome	Students will completing a	be able to communicate mathematics in a master's degree.	written form at a level con	nmensurate	with that of s	tudents
Measurement Instrument 1	Discussion bo and Statistics	Discussion boards, regularly assigned quizzes, a midterm, and a final from MATH 501, Introduction to Probability nd Statistics				
Criteria for Student Success	A score of 8 c mathematical	or higher on a 10-point multipart rubric will ly.	ll demonstrate students' ab	bility to con	nmunicate	
Program Success Target for this	Measurement	75%	Percent of Program Achiev	ving Target	100%	
Methods	The artifacts f regularly assig	from all enrolled students $(n = 7)$ that were gned quizzes, a midterm, and a final.	used to assess this SLO v	vere require	d discussion l	ooards,
Based on your results, highlight	whether the prog	gram met the goal Student Learning Outcome 1		М	et	Not Met
Actions (Describe the decision-ma	aking process and	actions for program improvement. The actions sho	ould include a timeline.)			
Actions (Describe the decision-ma Based upon previous semeste	aking process and er implementati	actions for program improvement. The actions sho ions of a paper and project, it was determin	buld include a timeline.) ned that this assessment ite	em was not	helping studer	nts to reach
Actions (Describe the decision-ma Based upon previous semester the stated objective. As suc	aking process and er implementati h, the course w	actions for program improvement. The actions sho ions of a paper and project, it was determin vas transitioned to a greater focus on stati	buld include a timeline.) ned that this assessment ite stical interpretations at the	em was not	helping studer Il level to help	nts to reach p meet this
Actions (Describe the decision-ma Based upon previous semester the stated objective. As suc SLO. Students are expected	aking process and er implementation h, the course we d to write and	actions for program improvement. The actions sho ions of a paper and project, it was determin vas transitioned to a greater focus on stati reflect in a statistically precise way.	build include a timeline.) ned that this assessment ite stical interpretations at the This decision was reached	em was not e conceptua d after com	helping studer il level to help pleting <i>Quali</i>	nts to reach p meet this ity Matters
Actions (Describe the decision-ma Based upon previous semesta the stated objective. As suc SLO. Students are expecte certification for the course ar	aking process and er implementation h, the course we d to write and nd receiving fee	actions for program improvement. The actions sho ions of a paper and project, it was determin vas transitioned to a greater focus on stati reflect in a statistically precise way.	buld include a timeline.) ned that this assessment ite stical interpretations at the This decision was reached ess and after reviewing SIT	em was not e conceptua d after com TE evaluatio	helping studer Il level to help pleting <i>Quali</i> ons. Addition	nts to reach p meet this <i>ity Matters</i> ally, future
Actions (Describe the decision-ma Based upon previous semester the stated objective. As suc SLO. Students are expecter certification for the course are improvements for the course	aking process and er implementation h, the course we d to write and nd receiving fee are being cons	actions for program improvement. The actions sho ions of a paper and project, it was determin vas transitioned to a greater focus on stati l reflect in a statistically precise way. The edback from the reviewers during that proc idered as part of a program redesign that y	buld include a timeline.) ned that this assessment ite stical interpretations at the This decision was reached ess and after reviewing SIT vill occur during the 2020-	em was not e conceptua d after com TE evaluatio -2021 acade	helping studen al level to help apleting <i>Quali</i> ons. Addition emic year.	nts to reach p meet this <i>ity Matters</i> ally, future
Actions (Describe the decision-ma Based upon previous semester the stated objective. As suc SLO. Students are expecter certification for the course are improvements for the course Follow-Up (Provide your timeline We will continue to monitor	aking process and er implementati h, the course w ed to write and nd receiving fee are being cons for follow-up. If	actions for program improvement. The actions sho ions of a paper and project, it was determin vas transitioned to a greater focus on stati l reflect in a statistically precise way. The edback from the reviewers during that proce- bidered as part of a program redesign that we follow-up has occurred, describe how the actions a son this learning outcome	buld include a timeline.) ned that this assessment ite stical interpretations at the This decision was reached ess and after reviewing SIT will occur during the 2020- above have resulted in program	em was not e conceptua d after com TE evaluation -2021 acade improvement	helping studen al level to help pleting <i>Quali</i> ons. Addition emic year.	nts to reach p meet this <i>ity Matters</i> ally, future
Actions (Describe the decision-ma Based upon previous semester the stated objective. As suc SLO. Students are expecter certification for the course are improvements for the course Follow-Up (Provide your timeline We will continue to monitor Next Assessment Cycle Plan (Ple	aking process and er implementation h, the course we ad to write and ad receiving fee are being conse for follow-up. If student success ase describe your	actions for program improvement. The actions sho ions of a paper and project, it was determin vas transitioned to a greater focus on stati l reflect in a statistically precise way. The adback from the reviewers during that proce- bidered as part of a program redesign that we follow-up has occurred, describe how the actions a s on this learning outcome.	buld include a timeline.) ned that this assessment ite stical interpretations at the This decision was reached ess and after reviewing SIT will occur during the 2020- above have resulted in program	em was not e conceptua d after com TE evaluatio -2021 acade improvement	helping studen al level to help pleting <i>Quali</i> ons. Addition emic year.	nts to reach p meet this <i>ity Matters</i> ally, future
Actions (Describe the decision-ma Based upon previous semester the stated objective. As suc SLO. Students are expecter certification for the course are improvements for the course Follow-Up (Provide your timeline We will continue to monitor Next Assessment Cycle Plan (Ple The course used to assess thi	aking process and er implementation h, the course word to write and nd receiving feet are being const for follow-up. If student success case describe your s outcome is a	actions for program improvement. The actions sho ions of a paper and project, it was determin vas transitioned to a greater focus on stati l reflect in a statistically precise way. The edback from the reviewers during that proce- bidered as part of a program redesign that w follow-up has occurred, describe how the actions a s on this learning outcome. assessment plan timetable for this outcome.) core course in the MA in Mathematics Pro-	buld include a timeline.) ned that this assessment ite stical interpretations at the This decision was reached ess and after reviewing SIT will occur during the 2020- above have resulted in program	em was not e conceptua d after com TE evaluation -2021 acade improvement ee a year. Th	helping studen al level to help pleting <i>Quali</i> ons. Addition emic year.	nts to reach p meet this <i>ity Matters</i> ally, future essed again

		Student Learn	ing Outcom	ne 2		
Student Learning Outcome	Students will	be able to write proofs of theory	rems in mat	hematics.		
Measurement Instrument	Assessments	Assessments from MATH 503, Introduction to Analysis.				
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Criteria for Student Success	A score of 8 c	r higher on a 10-point multipa	rt rubric for	problems given on assessments will	indicate that	students
	are able to use	e multiple strategies in problem	n solving sit	uations.		
					[
Program Success Target for this	Measurement	75%		Percent of Program Achieving Target	83.3%	
Methods	The artifacts f	from all enabled students $(n = f$) that were	used to assess this SLO were homew	ork midterm	final
	The artifacts i	form an enoned students (n))) that were	used to assess this SLO were noniew	ork, matering	, 1111.
Based on your results circle or l	 highlight whether	the program met the goal Studen	t Learning OI	utcome ?		
Dased on your results, circle of r	ngningnt whether	the program met the goar Studen	t Learning Ot	acconc 2.	Met	Not Met
Actions (Describe the decision-ma	aking process and	actions planned for program improve	ement. The ac	tions should include a timeline.)		
While we have plans to redea	sign the MA In	Mathematics program, this co	urse will rei	main part of the program and will no	t undergo a re	vision.
Follow-Up (Provide your timeline for follow-up. If follow-up has occurred describe how the actions above have resulted in program improvement.)						
We will continue to monitor	student success	s on this learning outcome.			/	
		C				
Next Assessment Cycle Plan (Please describe	your assessment plan timetable for	or this outcon	ne)		
The course used to assess thi	s outcome is a	core course in the MA in Math	ematics Pro	gram and it is offered once a year. T	his will be ass	sessed again
during the fall 2020 semester	r when the cour	se is taught again.				

Student Learning Outcome 3					
Student Learning Outcome	Students will	Students will demonstrate their capacity to use multiple strategies and appropriate technology to apply mathematics			
	in problem so	n problem solving situations and will justify their solutions with sound logic.			
Measurement Instrument 1	Assessments from MATH 512, Geometry from an Advanced Perspective.				
Criteria for Student Success	A score of 8 or higher on a 10-point multipart rubric will demonstrate students' ability to choose appropriate				
	strategies, inc	luding the use of technology, to solve pro	blems and justify their solutions.		
Program Success Target for this	Measurement	75%	Percent of Program Achieving Target	100%	
	1				
Methods	The artifacts f	from all enolled students $(n = 5)$ that were	used to assess this SLO were the mic	lterm and final	l.
Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3. Met Not M					Not Met
Actions (Describe the decision-ma	aking process and	actions for program improvement. The actions sh	ould include a timeline.)		
During the upcoming progra	m revison duri	ng the 2020-2021 academic year, course	materials for this course will be deve	loped that alight	gn with the
new materials developed for	MATH 511. T	These materials will be ready to use during	g the spring 2021 semester.		-
Follow-Un (Provide your timeline	for follow-up If	follow-up has occurred describe how the actions	above have resulted in program improvemen	t)	
We will continue to monitor	student success	s on this learning outcome	above have resulted in program improvement)	
we will continue to monitor	student success	s on this learning outcome.			
Next Assessment Cycle Plan (Ple	ease describe your	assessment plan timetable for this outcome)			
The course used to assess thi	s outcome is a (core course in the MA in Mathematics Pro	ogram and it is offered once a year. T	his will be asse	essed again
during the spring 2021 seme	ster when the c	ourse is taught again	grani and it is offered once a year.		Jobed again
during the spring 2021 semester when the course is taught again.					
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Student Learning Outcome 4					
Student Learning Outcome	Students will	demonstrate their capacity for collaboration	on in the mathematics classroom as a	learner and as	a teacher.
Measurement Instrument 1	Discussion bo	Discussion boards and assignments from MATH 511, Algebra from an Advanced Perspective.			
Criteria for Student Success	A score of 8 c	or higher on a 10-point multipart rubric wi	ll demonstrate students' ability to col	laborate when	working
	towards solut	ions to problems. We expect at least 75%	of students to meet this learning outc	ome.	
Program Success Target for this	Measurement	75%	Percent of Program Achieving Target	75%	
Methods	The artifacts t	from all enabled students $(n = 8)$ that were	used to assess this SLO were assign	nents and disci	ussion
	boards.	from an enoned students (n = 0) that were		fields and dise	4551011
Based on your results, circle or h	Based on your results, circle or highlight whether the program met the goal Student Learning Outcome 3.				
Met Not Me					
		the program met the goar student learning of	uttome 5.	Met	Not Met
Actions (Describe the decision-ma	aking process and	actions for program improvement. The actions sho	ould include a timeline.)	Met	Not Met
Actions (Describe the decision-ma During the upcoming progra	aking process and am revison dur	actions for program improvement. The actions she	ould include a timeline.) e materials that will tend to elicit m	Met ore collaborati	Not Met
Actions (Describe the decision-ma During the upcoming progra developed. These materials	aking process and am revison dur will be ready to	actions for program improvement. The actions sho ring the 2020-2021 academic year, course o use during the fall 2020 semester.	ould include a timeline.) e materials that will tend to elicit m	Met ore collaborati	Not Met
Actions (Describe the decision-ma During the upcoming progra developed. These materials	aking process and am revison dur will be ready to	actions for program improvement. The actions sho ring the 2020-2021 academic year, course to use during the fall 2020 semester.	ould include a timeline.) e materials that will tend to elicit m	Met ore collaborati	Not Met
Actions (Describe the decision-ma During the upcoming progra developed. These materials Follow-Up (Provide your timeline	aking process and am revison dur will be ready to for follow-up. If	actions for program improvement. The actions sho ing the 2020-2021 academic year, course o use during the fall 2020 semester.	ould include a timeline.) e materials that will tend to elicit m above have resulted in program improvemen	Met ore collaborati	Not Met
Actions (Describe the decision-ma During the upcoming progra developed. These materials Follow-Up (Provide your timeline We will continue to monitor	aking process and am revison dur will be ready to for follow-up. If student success	actions for program improvement. The actions sho ing the 2020-2021 academic year, course o use during the fall 2020 semester.	ould include a timeline.) e materials that will tend to elicit m above have resulted in program improvemen	Met ore collaborati nt.)	Not Met
Actions (Describe the decision-ma During the upcoming progra developed. These materials Follow-Up (Provide your timeline We will continue to monitor	aking process and am revison dur will be ready to for follow-up. If student success	actions for program improvement. The actions sho ing the 2020-2021 academic year, course o use during the fall 2020 semester. follow-up has occurred, describe how the actions s on this learning outcome.	ould include a timeline.) e materials that will tend to elicit m above have resulted in program improvemen	Met ore collaborati	Not Met
Actions (Describe the decision-ma During the upcoming progra developed. These materials Follow-Up (Provide your timeline We will continue to monitor Next Assessment Cycle Plan (Ple	aking process and am revison dur will be ready to for follow-up. If student success	actions for program improvement. The actions sho ing the 2020-2021 academic year, course o use during the fall 2020 semester. follow-up has occurred, describe how the actions a s on this learning outcome.	attoine 3. ould include a timeline.) e materials that will tend to elicit m above have resulted in program improvemen	Met ore collaborati	Not Met
Actions (Describe the decision-ma During the upcoming progra developed. These materials Follow-Up (Provide your timeline We will continue to monitor Next Assessment Cycle Plan (Ple The course used to assess thi	aking process and am revison dur will be ready to for follow-up. If student success case describe your s outcome is a	actions for program improvement. The actions sho ing the 2020-2021 academic year, course o use during the fall 2020 semester. follow-up has occurred, describe how the actions a s on this learning outcome. assessment plan timetable for this outcome) core course in the MA in Mathematics Pro	ould include a timeline.) e materials that will tend to elicit m above have resulted in program improvemen gram and it is offered once a year. T	Met ore collaborati nt.) his will be asse	Not Met
Actions (Describe the decision-ma During the upcoming progra developed. These materials Follow-Up (Provide your timeline We will continue to monitor Next Assessment Cycle Plan (Ple The course used to assess thi during the fall 2020 semester	aking process and am revison dur will be ready to for follow-up. If student success ase describe your s outcome is a r when the cour	actions for program improvement. The actions sho ing the 2020-2021 academic year, course o use during the fall 2020 semester. follow-up has occurred, describe how the actions a s on this learning outcome. assessment plan timetable for this outcome) core course in the MA in Mathematics Pro- rse is taught again.	e materials that will tend to elicit m above have resulted in program improvemen	Met ore collaborati nt.) his will be asse	Not Met