



**MISSISSIPPI STATE**  
**UNIVERSITY**<sup>TM</sup>

*UNIVERSITY COMMITTEE ON  
COURSES AND CURRICULA*

**A MEMORANDUM**

DATE: November 6, 2018  
TO: UCCC Members  
FROM: Dr. Dana Pomykal Franz, Chair  
SUBJECT: November 16, 2018 Meeting

Enclosed are the minutes from the meeting on October 19, 2018 and the agenda and proposals for the meeting on **Friday, November 16, 2018 beginning at 1:30 p.m.** The meeting will be held in **Room 324 of the Student Union.** Please contact the UCCC office if you are unable to attend.

Thank you.

Enclosures: October 19, 2018 Meeting Minutes  
Course/Curriculum Proposals

**AGENDA**  
**UNIVERSITY COMMITTEE ON COURSES AND CURRICULA**  
**November 16, 2018**

1. Welcome
2. Approval of minutes
3. Course proposals by college/school:

**AGRICULTURE AND LIFE SCIENCES**

+Online/Distance	<a href="#">ABE 2543</a>	Precision Agriculture I
Addition	<a href="#">BCH 4443</a>	Introduction to Public Health
+Online/Distance	<a href="#">BCH 4503/6503</a>	Scientific Communication Skills
+Online/Distance	<a href="#">FDM 2333</a>	Intro to Buying and Management
+Online/Distance	<a href="#">FDM 4693/6693</a>	Digital Fashion Retailing
+Online/Distance	<a href="#">PO 3313</a>	Commercial Poultry Production
Addition	<a href="#">PSS 8643</a>	Principles of Spray Application and Technology

**ARTS AND SCIENCES**

Addition	<a href="#">FLC 3203</a>	Survey of Chinese Literature
Addition	<a href="#">FLC 3303</a>	Survey of Chinese Culture
Addition	<a href="#">FLJ 3163</a>	Japanese VI
Addition	<a href="#">FLJ 3203</a>	Survey of Japanese Literature
Addition	<a href="#">FLJ 3303</a>	Survey of Japanese Culture
Addition	<a href="#">SO 8443</a>	Seminar in Rural Sociology

**EDUCATION**

Modification +Online/Distance	<a href="#">EP 3183</a>	Exercise Psychology
Addition	<a href="#">PE 1201</a>	Adapted Physical Activity
Modification +Online/Distance	<a href="#">PE 3163</a>	Sport Psychology

4. Degree proposals by college/school

**ARTS & SCIENCES**

Modification	MS	Chemistry
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**University Committee on Courses and Curricula**  
**Mississippi State University**  
**October 19, 2018**

Members

Present: Amy Adkerson, Tracey Baham, Randy Campbell, Amy Crumpton, Padmanava Dash, Dana Franz, Joshua Hartley, Kevin Hunt, Qingmin Meng, Rob Moore, Emily Owen, Prem Parajuli, Tommy Parker, Andy Perkins, Tommy Phillips, Kathy Sherman-Morris, Darrell Sparks, Marian Swindell, Jacob Tschume, Jenny Turner, Erica Waldman, Jeff Winger, Robert Wolverton, Matthew Zimmerman

Excused: John Buol, Russell Carr, Cody Coyne, Charles Freeman, Seamus Freyne, Trey Howell, Matthew Priddy, Brad Trinkle, Chien Yu

Proxy: Bob Wolverton, Jr. for Pat Matthes

Absent: Arman Borazjani

Guests: Kiley Forsythe, Richard Harkess, Fumiko Joo, Xiaofei Li, Gay Williamson

Franz called the meeting to order at 1:30 p.m. on Friday, October 19, 2018 at 1:30 p.m. in Room 324 of the Student Union. Franz announced emergency procedures should not be included on syllabi, so university announcements will be followed. The link for emergency announcements may be provided on the syllabi. Franz continues to work with the Teaching and Learning Center to update the example syllabus on their website. Franz announced the Faculty Senate is working on policy for the recording of lectures. Franz welcomed Marian Swindell to the UCCC meeting as the representative from the Meridian campus.

Crumpton moved to approve the minutes from the September 7, 2018 UCCC meeting. Hunt seconded the motion. The motion to approve the September 7, 2018 UCCC minutes was unanimously approved.

Perkins moved to approve the addition of distance education to ADS 8162 Monogastric Nutrition. Hunt seconded the motion. The subcommittee that reviewed the proposal reported that the 30 character abbreviation is awkward and not enough information about the distance component of the course is included in the syllabus. Parajuli moved to approve the addition of distance education to ADS 8162 contingent upon the above concerns being address. Winger seconded the motion. The motion to pass the addition of distance education to ADS 8162 contingent upon the above concerns being addressed was approved with one committee member abstaining.

Perkins moved to approve the addition of AEC 4363/6363 Economics of Precision Agriculture and the addition of distance education to AEC 4363/6363. Parajuli seconded the motion. The subcommittee that reviewed the proposal noted that in the syllabus excused absences are only allowed if they are reported in advance which is conflict with AOP 12.09; there is minimal information for distance students

in the syllabus; and in the proposal bonus points are mentioned for those who participate in the online discussion group, but that information is not included in the syllabus. Crumpton moved to pass the addition of AEC 4363/6363 and the addition of distance education to AEC 4363/6363 contingent upon the above concerns being addressed. Parajuli seconded the motion. The motion to pass contingent was approved with one committee member abstaining.

Perkins moved to approve the addition of AELC 4613/6613 Teaching Agricultural Mechanics. Parajuli seconded the motion. The motion to approve the addition of AEC 4613/6613 was unanimously approved.

Perkins moved to approve the addition of distance education to FDM 2553 Introduction to Fashion Industry. Campbell seconded the motion. The subcommittee that reviewed the proposal reported that the provisions in the syllabus that prohibit make up of missed and late assignments may be in conflict with AOP 12.09; in the syllabus there is no mention of excused absences for Campus 1 students; the Campus 5 syllabus does not contain sufficient information about how Campus 5 students will participate in class, take exams, etc. and contains minimal information specific to distance students; the syllabus does not outline how the three exams will be weighted; and the syllabus does not explain how the distance students are getting the extra credit opportunity mentioned in the proposal. Parajuli moved to pass the addition of distance education to FDM 2553 contingent upon the above concerns being addressed. Crumpton seconded the motion. The motion to pass contingent was approved with one committee member abstaining.

Perkins moved to approve the addition of FDM 8100 Creative Component Project in Fashion Design and Merchandising. Hunt seconded the motion. The subcommittee that reviewed the proposal reported that the catalog description in the syllabus does not match the catalog in the proposal; the syllabus does not outline how students meet with the faculty member about the project and what happens if students miss scheduled meetings; and the date the project is due needs to be clearer. Crumpton moved to pass the addition of FDM 8100 contingent upon the above concerns being addressed. Parajuli seconded the motion. The motion to pass FDM 8100 contingent was approved unanimously.

Perkins moved to approve the modification of HDFS 8413 Issues in Family Science and the addition of distance education to HDFS 8413. Crumpton seconded the motion. The subcommittee that reviewed the proposal reported that the syllabus mentions that students are expected to complete all exams, but exams are not mentioned in the graded work; an attendance policy is not included in the syllabus; and the proposed Campus 5 syllabus will not open, so it will need to be reloaded to be evaluated. Hunt moved to pass the modification of HDFS 8413 and the addition of distance education to HDFS 8413 contingent upon the above concerns being addressed. Parajuli seconded the motion. The motion to pass contingent was approved with one committee member abstaining.

Perkins moved to approve the modification of HS 4702 Research and Application in Human Sciences. Parajuli seconded the motion. The motion to approve HS 4702 was approved unanimously.

Perkins moved to approve the modification of PSS 4373/6373 Geospatial Agronomic Management. Crumpton seconded the motion. The motion to approve PSS 4373/6373 was approved unanimously.

Perkins moved to approve the modification of the BS in Animal and Dairy Science. Parajuli seconded the motion. The motion to approve the modification of the BS in Animal and Dairy Science was approved unanimously.

Crumpton moved to approve the addition of distance education to BIO 1123 Animal Biology. Parajuli seconded the motion. The motion to approve the addition of distance education to BIO 1123 was approved unanimously.

Crumpton moved to approve the addition of FL 4503 Ghost Tales from China and Japan, 14<sup>th</sup> – 19<sup>th</sup> Centuries and the addition of FLJ 3153 Japanese V. Parajuli seconded the motion. The motion to approve FL 4503 and FLJ 3153 was approved unanimously.

Crumpton moved to approve the name change for the Ph.D. in College/Postsecondary Student Counseling & Personnel to Counselor Education. Winger seconded the motion. The motion to approve was approved unanimously.

Crumpton moved to approve the addition of MU 3681 Opera Production and MU 8402 Advanced Instrumental Arranging. Hunt seconded the motion. The motion to approve the addition of MU 3681 and MU 8401 was unanimously approved.

Hunt moved to approve the addition of distance education to BL 2413 The Legal Environment of Business. Crumpton seconded the motion. The subcommittee that reviewed the proposal noted the syllabus mentions university excused absences but does not list them or provide a link to AOP 12.09, and the names of the textbook chapters need to be included in the syllabus and the course outline. Perkins moved to pass the addition of distance education to BL 2413 contingent upon the above concerns being addressed. Parajuli seconded the motion. The motion to pass contingent was approved unanimously.

Hunt moved to approve the addition of distance education to BL 4273/6273 International Business Law. Perkins seconded the motion. The subcommittee that reviewed the proposal noted the syllabus does not contain sufficient information about how Campus 5 students will participate in class, take exams, etc. and contains minimal information specific to distance students; the syllabus mentions university excused absences but does not list them or provide a link to AOP 12.09; and extra credit is offered to face to face students but not to online students. Parajuli moved to pass the addition of distance education to BL 4273/6273 contingent upon the above concerns being addressed. Tschume seconded the motion. The motion to pass contingent was unanimously approved.

Hunt moved to approve the addition of distance education to MGT 3823 Socially Responsible Leadership. Crumpton seconded the motion. The subcommittee that reviewed this proposal commented that the initiator did a good job of explaining the online component of the class. The motion to approve the addition of distance education to MGT 3823 was unanimously approved.

Hunt moved to approve the addition of distance education to MKT 4113 Personal Selling. Crumpton seconded the motion. The subcommittee that reviewed the proposal noted while there is an attendance policy it would be a good idea to provide a link to AOP 12.09; that is not clear under Discussion Assignments what “[i]f you fail to participate **completely** in any given week you will receive a zero for that week” means; and Participation, Discussions Assignments and Professionalism seem to overlap and need to be clarified. Moore moved to pass the addition of distance education to MKT 4113

contingent upon the above concerns being addressed. Parajuli seconded the motion. The motion to pass MKT 4113 contingent was unanimously approved.

Hunt moved to approve the addition of distance education to MKT 4413 Consumer Behavior. Crumpton seconded the motion. The subcommittee that reviewed the proposal noted that under the Professionalism heading it mentions professionalism is 10% of the grade but on the grade breakdown professional is not listed, and that is not clear under Discussion Assignments what “[i]f you fail to participate **completely** in any given week you will receive a zero for that week” means. Parajuli moved to pass MKT 4413 contingent upon the above concerns being addressed. Perkins seconded the motion. The motion to pass MKT 4413 contingent was unanimously approved.

Sparks moved to approve the addition of ECE 4943/6943 Automation, Data Acquisition, and PLDs and the addition of Gulf Coast Campus 6 to ECE 4943/6943 (the request for the addition of distance education was withdrawn). The subcommittee that reviewed the proposal noted that even though the syllabus indicates that “you must receive a passing grade for both the lecture portion and the laboratory portion of this course” the grading scale indicates otherwise, and while the syllabus notes there will be a 10 point grading scale the scale needs to be included in the syllabus. Parajuli moved to pass the addition of ECE 4943/6943 and the addition of Gulf Coast Campus 6 contingent upon the above concerns being addressed. Hunt seconded the motion. The motion to pass contingent was unanimously approved.

Sparks moved to approve the modification of ECE 8633 Control of Distributed Energy Resource Systems and the addition of Gulf Coast Campus 6 to ECE 8633. Campbell seconded the motion. The motion to modify ECE 8633 and the addition of Gulf Coast Campus 6 was unanimously approved.

Winger moved to approve the addition of WFA 4633/6633 Problem Solving in Conservation Biology and the addition of WFA 4881/6881 Current Topics in Conservation Biology. Parajuli seconded the motion. For WFA 4633/6633, the subcommittee that reviewed the proposal noted the catalog description needs to have the prerequisites mentioned first followed by the phrase “three hours lecture;” the course description needs to be included on the syllabus; and while the graduate student mentorship will count 5%, it is not clear how that will be evaluated. For WFA 4881/6881, the subcommittee that reviewed the proposal noted there is not a breakdown for graduate grading in the grading scale, and questioned whether the initiator intended to include a statement like “or equivalent courses with instructor approval” in the prerequisites so graduate students who graduated from another university may take the course. Parajuli moved to pass WFA 4633/6633 and WFA 4881/6881 contingent upon the above concerns being addressed. Campbell seconded the motion. The motion to pass contingent was unanimously approved.

Winger moved to approve the addition of distance education to WFA 8433 Natural Resources and Conservation Decision Making. Parajuli seconded the motion. The subcommittee that reviewed the proposal noted on the grading scale the “D” range has a typographical error, and the contact hours need to be broken down into smaller increments (subcommittee was not sure if each subheading was worth one contact hour). Crumpton moved to pass WFA 8433 contingent upon the above concerns being addressed. Perkins seconded the motion. The motion to pass WFA 8433 contingent was approved unanimously.

Hunt moved to approve the modification of the BS in Wildlife, Fisheries & Aquaculture. Parajuli seconded the motion. A member of the committee pointed out that the Genetics class in the program

proposal is located in the Poultry Science Department, and a letter of support is needed from that department. Committee members also pointed out the course proposals for WFA 4633/6633 and WFA 4881/6881 will have to clear before the program proposal can be approved. Perkins moved to pass the BS in Wildlife, Fisheries & Aquaculture contingent upon the above concerns being addressed. Crumpton seconded the motion. The motion to pass contingent was approved unanimously.

Zimmerman moved to adjourn the meeting. Parajuli seconded the motion. The motion to adjourn was approved unanimously. The meeting was adjourned at 3:33 p.m.

APPROVAL FORM FOR  
**DEGREE PROGRAMS**  
MISSISSIPPI STATE UNIVERSITY

**NOTE:** This form is a cover sheet that must accompany the degree program change proposal. The actual proposal should be prepared in accordance with format requirements provided in the *Guide and Format for Curriculum Proposals* published by the UCCC. Both cover sheet and proposal should be submitted to UCCC Mail Stop 9702 (281 Garner Hall), Phone: 325-9410.

**College:** Arts & Sciences

**Department:** Chemistry

**Contact Person:** Joe Emerson

**Mail Stop:** 9573

**E-mail:** jpe67@msstate.edu

**Nature of Change:** Adding a non-thesis option to MS program

**Date Initiated:** Fall 2018

**Effective Date:** Spring 2019

**Current Degree Program Name:** Master of Science

**Major:** Chemistry

**Concentration:** n/a

**New Degree Program Name:** Master of Science

**Major:** Chemistry

**Concentration:** Thesis

**Major:** Chemistry

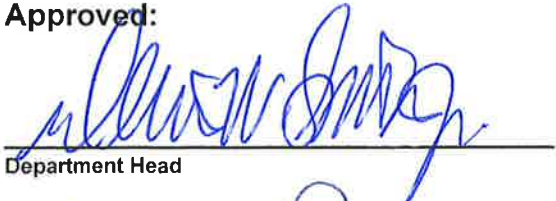
**Concentration:** Non-Thesis

**Summary of Proposed Changes:**

The modification of the Master of Science in Chemistry degree program would afford students pursuing a MS in Chemistry the option of choosing a thesis or non-thesis based curriculum. The research concentration would reflect our current MS program. The new, non-thesis option would provide a course-work only concentration affording a MS degree with 30 hours of graded course content.



Approved:

  
Department Head

Date:

7 Sept 2018

  
Chair, College or School Curriculum Committee

11/2/18

  
Dean of College or School

11/5/18

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Chair, University Committee on Courses and Curricula

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Chair, Graduate Council (if applicable)

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Chair, Deans Council

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### GRADUATE DEGREE MODIFICATION OUTLINE FORM

Use the chart below to make modifications to an existing Graduate Degree. All deleted courses and information should be shown in *italics* and all new courses and information in **bold**. Please include the course prefix, number, and title in both columns. Expand rows as needed.

CURRENT Degree Description	PROPOSED Degree Description
Degree: Master of Science (MS) Major: Chemistry Concentrations: n/a	Degree: Master of Science (MS) Major: Chemistry Concentrations: <b>Thesis and Non-thesis</b>
The Department of Chemistry provides a flexible and dynamic environment in which to pursue a Master of Science or Doctor of Philosophy degree in chemistry. Students have the opportunity to work with faculty with interests in Biochemistry, Chemical Education, Environmental Chemistry, and Materials Science, as well as in Analytical, Inorganic, Organic, and Physical Chemistry. The faculty has active research programs in Synthesis (inorganic, organic, polymer and supramolecular synthesis), Surface Chemistry (catalysis and corrosion studies), Spectroscopy (IR laser spectroscopy and bioanalytical applications for Raman and Surface Enhanced Raman methods), Structural Biology (using NMR, calorimetry and computational methods), and Biophysical studies (including cancer drug discovery). Environmental research programs focus on the development of novel miniature chemical sensors and on pesticide and herbicide transport while computational chemists are developing <i>Ab initio</i> and semiempirical methods to study complex biological systems and important chemical processes.	<p>The Department of Chemistry provides a flexible and dynamic environment in which to pursue a Master of Science or Doctor of Philosophy degree in chemistry. Students have the opportunity to work with faculty <b>that have interests in the traditionally defined areas of Analytical, Biological, Inorganic, Organic, and Physical Chemistry. Additionally, active research in the interdisciplinary areas of Chemistry Education and Polymer and Materials Science are also available.</b></p> <p><b>Students wishing to pursue a program leading to a Master of Science degree in Chemistry are required to complete a thesis or non-thesis concentrations outlined below. The thesis concentration requires MS students to engage in research with a member of the graduate faculty. This unique experience gives students hands-on knowledge in research and develops practical skills associated with regular laboratory practices. The non-thesis concentration requires additional course work broadening MS student's education experiences and technical knowledge. Both concentrations, however, will refine the MS student's knowledge in chemistry and prepare them for challenges in academic settings and industrial careers.</b></p>

		<p>Students may choose a thesis or non-thesis concentration.</p> <p>The thesis concentration requires a minimum of 6 hours chemistry research (CH 8000) under the supervision of a graduate faculty member (research advisor) in the Department of Chemistry. Students choosing the thesis option, must generate and defend an original thesis as part of a final examination for the MS degree program. All thesis track MS students are required to complete at least 12 hours of CH 8000-level courses and 1 hour of chemistry seminar (CH 8711) as part of their MS degree.</p> <p>The non-thesis option requires additional course work to generate a minimum of 30 hours of course work. Students choosing this course-work only concentration will pass a comprehensive chemistry examination directed by a graduate faculty member (academic advisor) in the Department of Chemistry as part of the MS degree program. All non-thesis track MS students are required to complete at least 15 hours of CH 8000-level courses and 1 hour of chemistry seminar (CH 8711) as part of their MS degree.</p>	
<b>CURRENT CURRICULUM OUTLINE</b>	<b>Required Hours</b>	<b>PROPOSED CURRICULUM OUTLINE</b>	<b>Required Hours</b>
CH 8000 Research	6 hr	<b>Concentration 1. Thesis</b> CH 8000 Research	6 hr
CH 8711 Seminar	1 hr	CH 8711 Seminar	1 hr
6000 level or above courses chosen in consultation with the research director/committee.	23 hrs	6000-level or above courses chosen in consultation with the research advisor/committee.	11 hrs
		<b>8000-level CH courses chosen in consultation with the research advisor/committee</b>	<b>12 hrs</b>
		<b>Concentration 2. Non-thesis</b>	
		CH 8711 Seminar	1 hr
		6000-level or above courses chosen in consultation with the academic advisor/committee.	14 hrs
		8000-level CH courses chosen in consultation with the academic advisor/committee	15 hrs
<b>Total Hours</b>	<b>30 hrs</b>	<b>Total Hours</b>	<b>30 hrs</b>

## Justification and Student Benefit

This proposal aims to modernize our Master of Science (MS) program in Chemistry by offering two concentrations: A thesis track and a non-thesis track. The thesis track is a research intensive concentration and is for the most part our current MS program. The thesis-based concentration affords MS students an opportunity to take 24 hours of course-work then take an additional 6 hours of Thesis/Research (CH 8000) where these students will conduct research under the guidance of a graduate faculty member. The 6 hours of required CH 8000 give students an opportunity to gain meaningful hands-on experiences while uncovering new information in a research setting. The open-ended nature of chemistry research also allows for these thesis-based MS students to improve their deductive reasoning skills, appreciation of the scientific literature, and ability to design quality experiments. Additionally, the thesis-based concentration affords an opportunity for students to specialize in a specific area of chemistry. However due to the unpredictability of research, thesis-based MS degrees can often vary dramatically in length, where the typical span of a thesis-based MS program ranges from 1 to 4 years of study. Thesis-based MS students will write and defend a thesis as a requirement of this MS program.

Alternatively, the new, non-thesis track is a course-work only concentration, which affords a new option for graduate students to progress towards a graduate degree in chemistry at MSU. The non-thesis MS students will take 30 hours of course-work as part of this program. This includes additional graduate credit hours at both 6000- and 8000-level courses, which will broaden these MS student's understanding of chemical principles in a structured, classroom setting. Non-thesis based MS degrees can be granted to students on a regular and predictable timeframe, which is a major advantage to some students seeking a graduate degree. The non-thesis track offers similar rigor to the thesis-based program, where these MS students have to take 125% the GPA-generating course load compared to thesis MS students. The non-thesis MS students will also have to pass a comprehensive (oral and written) chemistry exam before graduation. At this time, we aim to use the American Chemical Society Standardized Exams from three of the five traditional areas of chemistry as an assessment tool for written portion of this comprehensive exam. Students would have 5 opportunities to pass 3 exams at or above the 75 percentile based on national normalized statistics. In many ways, this comprehensive chemistry exam is more challenging than defending a thesis, due to the breadth and depth of chemistry that is assessed on these exams. I would encourage students to prepare for months before they attempt portions of the comprehensive exam. The oral portion of the comprehensive exam will be more fluid and cover topics throughout chemistry, where students will be responsible understanding topics from simple molecular orbital theory discussed in general chemistry to modern topics in quantum mechanics. The 3 faculty members serving on a particular MS committee will dramatically flavor the topics of this oral exam, where their expertise will likely line up with their line of questions. The expectation for the oral exam is that the MS student should demonstrate "good" knowledge in chemistry. Failure of this oral portion of the comprehensive exam would result in the student having to reschedule this event in 4 months, similar to failing other defenses associated with our MS and PhD programs.

All admitted MS students in the Department of Chemistry have some experience working in a laboratory setting, and I would estimate 95% or more of them have done academic research as part of their BS degree program, which gives students a very good idea on what to expect when they are admitted as an MS student. Both thesis and non-thesis options can be effectively used as "spring boards" into other academic programs (medical school, graduate school, etc.) or other forms of employment. There are many local companies that would benefit from employees having advanced chemistry coursework and broad chemical knowledge, which they can gain through our non-thesis MS program without having to spend significant time in an on-campus research lab

Additionally, over the 10 years since this description of the MS degree program was written, the Department of Chemistry has undergone major changes in personnel. We also expect this trend to

continue due to multiple faculty members in Chemistry approaching retirement age. These personnel changes dramatically impact the specific research areas described within the original MS description. For example in 2 months, there will be no “cancer drug development” research on-going within the Department. Therefore we are using this program modification application to also simplify the description of the MS degree program, which better encompasses the current and future research efforts in the Department. In addition, as Chemistry has become an increasingly far-reaching field, there are more options than ever for MS chemists, and the justification for requiring all MS chemists to do on-campus, academic research is becoming increasingly tenuous. For example, someone working at Chemours would benefit from advanced inorganic chemistry coursework, chemical safety, etc., but they would not need to perform research in a laboratory in the Department of Chemistry to make a positive impact at their organization.

It also should be noted that within the College of Arts & Sciences at Mississippi State University, several other STEM based departments including the Departments of Physics and Math currently offer thesis and non-thesis based MS programs, and there are several programs that offer similar split MS programs in the College of Engineering.

- (1) This modification affords students additional opportunities to progress towards an advanced degree in chemistry. New and developing STEM jobs in the Southeastern portion of the US require a technically trained workforce, and this degree modification allows for increased flexibility to students training for these positions.
- (2) Changes to the MS degree program in the Department of Chemistry will not result in duplication.
- (3) There are a number of rising career options for chemists that require an advanced degree, but do not require an advanced and prolonged research experience. By offering a course-work only concentration, we believe we will serve this growing job area and will significantly grow our MS degree production by affording non-traditional students, working-students, and/or professionals to progress through the MS program without the uncertain progress of academic research.
- (4) Advanced degrees in chemistry provide a competitive advantage over traditional BS in chemistry degree holders. The advanced training students gain from the MS programs (thesis and non-thesis options) will give them a competitive advantage over applicants with less training. The non-thesis option also provides a mechanism for individuals working in STEM fields to advance their education and career options in Mississippi and our region of the country.
- (5) Advanced degree options provide a route to higher starting salaries and work-place promotions. Clearly adding flexibility to the MS program will add a range of student options to further their career goals and career options, which typically result in higher pay and quality of life. The addition of a non-thesis MS option also opens up an opportunity in the future to incorporate distance-learning components into the MS program; allowing more opportunities for off-campus student enrollment, which is not usually feasible for our thesis MS students.

### **Effective Date**

The Department of Chemistry aims to have this modification in place for Spring 2019.



September 7, 2018

Please consider this letter to support the graduate degree modification proposed by the Department of Chemistry, which creates two tracks associated with our Masters in Science (MS) degree program. The two tracks (thesis and non-thesis) will provide students more flexibility in their MS program, where they can focus their efforts in research (thesis track) or the classroom (non-thesis track). The thesis track is simply our currently approved MS degree program, where the non-thesis track is the same program except for the 6-hrs of required CH 8000 Thesis/Research is replaced with 6-hrs of graded course work.

Adding the non-thesis track affords students a new opportunity to make progress towards a MS degree in Chemistry, without the risk of uncertain progress in academic research in chemistry. We believe this option will be highly attractive to non-traditional, working students and professions interested in furthering their academic training.

The MS degree modification proposal has been discussed and generally approved by the Department of Chemistry during our Fall 2018 Departmental Retreat. However, the Graduate Affairs Committee serves as the graduate curriculum approving entity within the Department of Chemistry. Below all members of the Graduate Affairs Committee have endorsed this letter in support of this proposal.

Best,

Joseph P. Emerson, Ph.D.  
Associate Professor/Graduate Coordinator

Nicholas C. Fitzkee, Ph.D.  
Associate Professor

Deb A. Misna, Ph.D.  
Assistant Professor

Colleen N. Scott, Ph.D.  
Assistant Professor

C. Edwin Webster, Ph.D.  
Professor

David O. Wipf, Ph.D.  
Professor