Southern Connecticut State University

Department of Chemistry

GRADUATE STUDENT HANDBOOK

For more information go to

http://www.southernct.edu/chemistry

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1) Introduction: The Master of Science Degree in Chemistry

The Department of Chemistry at Southern Connecticut State University (SCSU) has a long and proud history of excellence. Since the Graduate Program in Chemistry began in 1966, SCSU has offered the only Master of Science (M.S.) Degree in pure Chemistry within the Connecticut State University (CSU) System.

The mission is to provide for those students who qualify, an opportunity to earn an advanced degree in Chemistry which is consistent in quality with the best programs in the country. This opportunity is more than simply offering courses and training consistent with the American Chemical Society standards; it is the close advisement, encouragement and flexibility which have been the distinguishing hallmark through the decades. The Master of Science Degree in Chemistry provides the community and nation with chemical professionals and educators. The majority of the students in the program are part-time, coming from local chemical industries or teachers in area school districts. Companies in the area regard the acquisition of a Master's Degree in Chemistry from SCSU as an appropriate degree for advancement to senior laboratory positions or management positions. Graduates with a Master of Science degree in Chemistry from SCSU can be found in most of the chemical companies throughout Connecticut and in neighboring states.

While the American Chemical Society (ACS) does not certify chemistry graduate programs, the undergraduate program in Chemistry at SCSU is ACS certified and those qualities that the ACS finds as being important to the undergraduate program do carry into the Graduate Program. During the Spring of 1996 the Master of Science Degree program in Chemistry at SCSU was awarded Distinctiveness status in the CSU system. Besides being the only campus in the CSU system that offers the M.S. Degree in pure Chemistry, the department's distinctiveness lies in the standards and qualities of the program as well as the program's ability to address the specialties of local area chemical industry.

In many fields of study the Master's Degree can be a stepping stone toward the Ph.D. degree. However, after completing the M.S. Degree in Chemistry at SCSU, the majority of the graduates do not go on for the Ph.D. degree. Knowing this, the Chemistry Department at SCSU celebrates the "advanced" part of the advanced degree, rather than looking at the M.S. as merely a continuation of the Bachelor's Degree.

2) Programs of Study

All students in the program are required to take a minimum of thirty (30) credits of chemistry and related courses. Central to the program are the six core requirements: Advanced Analytical Chemistry, Advanced Inorganic Chemistry, Advanced Organic Chemistry, Advanced Physical Chemistry, Advanced Biochemistry and Advanced Environmental Chemistry. The core courses are offered on a two-year rotation. The entire five year rotation for both the core required courses and elective courses is contained in Section 13.

There are five program options available within the M.S. in Chemistry Degree: a thesis option, a non-thesis option and a secondary science certification.

There are also two new tracks that include an accelerated B.S./M.S. degree and a Professional Science Masters Degree.

Thesis Option

The thesis option, referred to as Plan A, requires a total of thirty (30) credits: in addition to the 6 required courses (18 credits) the student must also take CHE 588 (Scientific Writing and Research Methods), CHE 589 (Thesis Proposal), CHE 590 (Thesis Research) and CHE 591 (Thesis) while completing an experimental research project done under the supervision of a member of the SCSU Chemistry Department. Alternatively, cooperative arrangements have been worked out with many area companies to allow students to conduct non-propriety research at the student's company under the joint supervision of a Ph. D. chemist at the company and an SCSU Chemistry Department faculty member. The capstone to Plan A is the successful defense of the Master's Thesis by the student in front of the entire Chemistry Department, students and faculty.

The thesis option may be chosen at the initial Planned Program meeting or at any time during work toward the Master's Degree. Students in the thesis option then explore a research project with a faculty member. With the aid of the research advisor, a Thesis Proposal is prepared and submitted to the Graduate School for approval. (See School of Graduate Studies Thesis Proposal Requirements and Guidelines in Section 13). Once the research project is completed, a thesis is written (see School of Graduate Studies Thesis Guidelines in Section 14). The completed thesis with appropriate papers and signatures is submitted to the Graduate School for approval. The Graduate School reviews the thesis and approves it, or recommends any final modifications for the final form. Once the thesis is approved, the student defends his or her research before the entire Chemistry Department.

Non-Thesis Option

The non-thesis option is designed for the student working in research who does not want or need research experience, but needs theoretical expertise. This option, referred to as Plan B, requires thirty (30) credits of coursework and successful completion of a Comprehensive Examination.

The Comprehensive Examination

The written Comprehensive Examination for the M. S. Degree in Chemistry is offered twice a year, the first Saturday of finals week in December and May. It may be taken twice. The exam consists of sixty (60) multiple choice questions in the six core areas: ten (10) questions each in Advanced Analytical Chemistry, Advanced Inorganic Chemistry, Advanced Organic Chemistry, Advanced Physical Chemistry, Advanced

Biochemistry and Advanced Environmental Chemistry. The student chooses two (2) Core areas in EACH of the following sub-groups:

Sub-Group #1: Organic Chemistry, Physical Chemistry, Inorganic Chemistry Sub-Group #2: Analytical Chemistry, Biochemistry, Environmental Chemistry

Thus, the student is answering forty (40) questions. Passing the Comprehensive Examination requires 28 correct answers out of the 40 questions, with at least four correct answers in each of the four areas. If the written exam is failed the first time, it may be taken again. If the written exam is failed the second time, a student may request an oral examination before the Chemistry Faculty under the following conditions:

- a. the student scored between 20 and 27 questions correct
- b. at least four questions correct in each of the four areas.

Failure of the Comprehensive Examination twice will lead to automatic dismissal from the program.

The graduate coordinator will send out a notice in the Fall and Spring prior to the date of the Comprehensive Examination. The student will inform the Gradaute Coordinator of their intention of taking the exam. Normally the student will take the Comprehensive Exam after completing the six required core courses.

Certification in Secondary Science

The certification in secondary science option is offered in conjunction with the Department of Science Education and Environmental Science to train teachers of grade 7-12 in chemistry, biology, physics, general science and earth science. In addition to the requirements of either Plan A or Plan B above, the student takes 27 credits of education courses, including student teaching.

Accelerated B.S./M.S.

The accelerated B.S./M.S. degree allows to students to complete both degrees in five years. Students start the program in the traditional fashion to pursue an undergraduate B.S. in chemistry. In their first three years, they take the same set of courses that they would as a typical undergraduate pursuing a B.S. in chemistry. Application to the program takes place during the junior year. Students are required to have and maintain a GPA of at least 3.0 from the time that they apply to the 4+1 program until they graduate. If a student is not accepted into the 4+1 program they will still be on track to finish their B.S. in 4 years and would be able to apply to the traditional M.S. degree.

During their senior year, students enroll in 6 credits of undergraduate courses that will count toward their undergraduate and graduate degrees. These 6 credits must are the

writing of an undergraduate thesis of which CHE 490 Chemistry Research I and CHE 491 Chemistry Research II are the required courses. Students will also take 2 graduate chemistry courses (6 total credits) during their senior year. These 12 credits taken during their undergraduate program will count toward the 30 credits required for the M.S. degree. At the conclusion of their 4th year, students must have completed all requirements for a B.S. degree. If a student that has completed all of the requirements for the B.S. degree does not complete the additional year (+1 or 5th year), that student will still receive their B.S. degree.

Students that are admitted in the Honors program would enroll in HON 494 (in place of CHE 490: Chemistry Research I) and HON 495 (in place of CHE 491: Chemistry Research II).

At the graduate level (or the + 1 year), students are required to complete an M.S. thesis for either 6 or 9 credits. CHE 590 Research and CHE 591 Research Thesis will be required for all students in the program. CHE 589 Research Thesis Proposal will be required for students who are completing their M.S. thesis with a different advisor than for their B.S. thesis.

The final 9 or 12 credits will be completed from chemistry graduate courses at the 500 level. These courses would consist of the 3 core courses that are offered during that year. If a student is not taking CHE 589, he or she would also take the graduate chemistry elective course that is being offered that year as well.

Application Procedure

Students may apply to the program during their junior year. Applications will generally be due by the Friday before spring break.

Students who will be juniors during the 2014-2015 academic year are encouraged to apply to the program. The application deadline is **March 13, 2015**. In order to apply to the program, students must submit undergraduate transcripts (for any institution where they have taken undergraduate courses), a personal statement, and a letter of recommendation from a faculty member indicating that they will be willing to supervise the student's research. The materials should be given to:

Dr. Ericka Barnes, Graduate Program Coordinator Telephone: (203) 392-6267 E-mail: barnese8@southernct.edu

Professional Science Masters

Students complete 36 credits. These 36 credits include the 6 core courses in chemistry (18 credits) and 6 courses from the MBA program (18 credits). Students must also pass the comprehensive examination in chemistry.

The courses from the MBA program include:

MBA 500: Management Process MBA 502: Statistical Decision Making MBA 505: Marketing Management MBA 537: Product Management MBA 548: Operations Management MBA 551: Business Ecological Sustainability

3) Program Requirements

The Master of Science Degree in Chemistry requires completion of a total of thirty (30) credits (10 courses). All students in the program must complete the core consisting of the following six courses (18 credits):

- CHE 500 Advanced Organic Chemistry The theoretical basis of the mechanistic pathways followed by the common organic reactions is given in this course. Prerequisites: CHE 261 or departmental permission. 3 credits.
- CHE 520 Advanced Physical Chemistry Elementary principles of quantum and statistical mechanics as applied to chemical systems. Applications of group theory to molecular symmetry and molecular spectroscopy. Prerequisites: CHE 370-371, and MAT 252. 3 credits.
- 3. CHE 532 Advanced Inorganic Chemistry Presentation of the theoretical and descriptive aspects of the chemical elements given at an advanced level. Particular emphasis is placed on the theoretical basis for physical and chemical properties of the elements. Prerequisites: CHE 435. 3 credits.
- 4. CHE 540 Advanced Analytical Chemistry An advanced course in the use of modern instrumentation involving both spectroscopic and chromatographic techniques for the solution of chemical problems. The emphasis will be on the applications of each instrumental method. Prerequisites: CHE 371 and CHE 440 or departmental permission. 3 credits.
- 5. CHE 550 Advanced Biochemistry I Structure and functioning of organisms, tissues, and cells from a chemical point of view. The physical-chemical basis for modern understanding of the structure of nucleic acids, proteins, carbohydrates, and lipids, and the general metabolism of biological compounds. Prerequisite: graduate standing or departmental permission. 3 credits.
- 6. CHE 560 Advanced Environmental Chemistry

Study of natural and anthropogenic sources of chemicals on the aquatic, atmospheric, and soil chemistry in the environment. Prerequisites: CHE 370 and 371. 3 credits.

Students in the program are required to maintain an overall grade point average (GPA) of 3.00 in all of their courses and an average GPA of 3.00 in the six core required courses. If the student does not achieve an average 3.00 GPA in the six required core courses, he/she may elect to repeat one of the core courses, typically the one in which he/she received the lowest grade, to bring the core average to a 3.00. The student may only repeat one core course.

The remaining 12 credits are electives chosen with the consent of the graduate coordinator. Of the elective courses, three (3) credits must be in graduate chemistry courses (1 course). Of the remaining nine credits, the student may take courses that are not graduate courses in chemistry. Of these, up to two courses may be undergraduate courses at the 300 level or above, or up to two courses may be graduate courses in related areas (e.g. computer science, biology, physics, etc.). For example, the student may take two undergraduate business courses and one graduate biology course, or, two graduate courses in computer science and one undergraduate math course. In addition, up to two graduate courses that have not been used toward completion of any other degree may be transferred to SCSU from another college or university. In all cases, the student must consult with the Graduate Coordinator before signing up for courses other than chemistry graduate courses.

In order to remain in good standing with the graduate school a student must maintain a minimum grade point average of 3.00. Any student who has completed 9 or more credits that falls below a GPA of 3.00 will be placed on probation. Any student can take 9 additional credits in an attempt to improve his/her GPA. If after the 9 additional credits, his/her GPA is still below a 3.00, the School of Graduate Studies will dismiss that student from the program.

The university imposes a six year limitation for completing a graduate degree which begins on the date of the first chemistry graduate course taken.

Outstanding Graduating Graduate Student Award:

Each year the department selects one student each year for the outstanding graduating graduate student award. This award is decided by the faculty on the basis of the student's performance throughout the M.S. program and is presented annually at the Chemistry Department Repast.

4) <u>Full-Time Faculty</u>

All graduate courses in chemistry are generally taught by full-time members of the Chemistry Department. On occasion, an adjunct professor may teach a course in his or her specialty to increase the variety of course offerings.

Below is a list of the full-time graduate faculty in the Chemistry Department at SCSU:

Ericka Barnes, Assistant Professor, Graduate Coordinator: B. S. Ateneo de Manila University, Ph. D. Wesleyan University. Specialty Area: Physical Chemistry / General Chemistry

Adiel Coca, Assistant Professor: B. S. Iona College, Ph. D. The Pennsylvania State University. Specialty Area: Organic Chemistry/ General Chemistry

Andrew Karatjas, Assistant Professor: B.S., Haverford College, Ph.D. The Pennsylvania State University. Specialty Area: Organic Chemistry / General Chemistry

James Kearns, Assistant Professor: B. S., Ph. D. The University of Massachusetts at Amherst Specialty Area: Analytical Chemistry/ General Chemistry

Gregory S. Kowalczyk, Associate Professor: B.S. Wayne State University, Ph.D. University of Maryland. Specialty Area: Analytical Chemistry/ Environmental Chemistry

M. J. Gerald Lesley, Professor, Department Chairperson: B.S., M.S., Ph.D. University of Waterloo. Specialty Area: Inorganic Chemistry/ Organometallic Chemistry

JiongDong Pang, Associate Professor: B.S. Fudan University, Shanghai, P.R. China; M.S. Institute of Oceanography, Chinese Academy of Science; Ph.D. University of Rhode Island. Specialty Area: Biochemistry

Todd Ryder, Assistant Professor: B.A. Cornell University; M.S. University of Michigan; Ph.D. University of Rochester. Specialty Area: Medicinal Chemistry / Chemical Genomics / General Chemistry

Jeffrey Webb, Assistant Professor: B. S. Keene State College, Ph. D. The State University of New York at Stony Brook. Specialty Area: Chemistry Education / General Chemistry

5) <u>Contact Informa</u>	<u>ation</u> Department	of Chemistry	Office Telephone Fax	JE 343 392-6260 392-6396
Full-Time Faculty	Room Number	Office Teleph	none Number	Email
Ericka Barnes	JE 318	203-392-626	7	barnese8
Adiel Coca	JE 304	203-392-6982	2	cocaa2
Andrew Karatjas	JE 327	203-392-627	1	karatjasa2
James Kearns	JE 330	203-392-626.	3	kearnsj1
Greg Kowalczyk	JE 305	203-392-626	8	kowalczykg1
Gerald Lesley	JE 308	203-392-6262	2/392-6261	lesleym1
JiongDong Pang	JE 323	203-392-6272	2	pangj1
Todd Ryder	JE 343A	203-392-626	8	rydert1
Jeffrey Webb	JE 315	203-392-501	8	webbj6

Other Important Numbers

Dean, School of Arts and Sciences	Steven Breese	EN A11	2	392-5468
Dean, Graduate Studies	Gregory Paveza	EN B11	0	392-5236
School of Graduate Studies		EN B11	0	392-5240
		or	1-800	-448-0661
Registrar		WT		392-5301
Bursar	Mark Waters	WT		392-6140
Bookstore				392-5270
Campus Police	Granoff Hall			392-5375
General University Information				392-5200
(Main Switchboard)			or	392-SCSU
((or 1-88	8-500-SCSU
School Cancellation				392-SNOW
				(392-7669)
Library Services	Buley Library			392-5742

6) Departmental Resources

Instrumentation

The Chemistry department is home to a large number of instruments including:

- Bruker 300 MHz Avance III NMR Spectrometer
- Shimadzu LCMS-2010EV
- Perkin-Elmer AutoSystemXL GCMS Turbo Gold Mass Spectrometer
- Perkin-Elmer System 2000 FTIR Spectrophotometer
- Perkin-Elmer 2380 Atomic Absorption Spectrophotometer
- Perkin-Elmer Lambda 20 UV/Vis Spectrometer
- Single-Crystal X-ray Diffraction (Access via NSF-CCLI Consortium with CCSU)
- Amplitron II Thermocycler for Polymerase Chain Reactions (PCR)
- Fisher DNA Sequencing System
- OWL Protein Transfer System
- Vacuum Atmospheres Nexus System Inert Atmosphere Drybox
- Johnson-Matthey Magnetic Susceptibility Balance
- Dell PowerEdge T710 Research Server with 2 Intel Xeon Processors and 36 Gb RAM (Computational Chemistry Software: Gaussian 09 and GaussView 5)

Jennings 306

The Chemistry Department has a computer lab equipped with 15 laptops all with ChemDraw, Gaussian 09 and GaussView 5 for student use. This room is staffed at times during the day by undergraduate chemistry majors who can assist students with the use of ChemDraw. The schedule for this room is posted outside room 306 at the start of each semester.

7) Student Email Account

Each student is automatically assigned an email address during matriculation. Email may be accessed from the SCSU home page (www.southernct.edu) by clicking on SCSU Web Services and logging on. Normally the first time the system is accessed the student's ID is the login identification number and the password is the student's birth date (mm-dd-yy). After logging on, the student's email address(es) may be viewed by clicking on Personal Information. The student's SCSU email address will be shown. Graduate students should check their email at the University address frequently because the Department and the university may contact you through it, even if you have another email address.

8) School of Graduate Studies Commencement

The Chemistry Department encourages all graduating students to take part in the formal commencement ceremony presented by the School of Graduate Studies at the end of the Fall or Spring semester. Those who have completed all degree requirements in the summer or Fall semester are eligible to participate in the Fall commencement ceremony. Those that complete their requirements during the Spring semester are eligible to participate in the Spring semester are eligible to participate.

Once all of the degree requirements have been completed, a degree application has to be filled out. Normally this must be done in September for a December graduation, January for a May graduation and April for an August graduation. Contact the School of Graduate Studies for the exact dates each year. Applications are available on the Web at www.southernct.edu by clicking on Student Services, then on Registrar.

At the current time, the application for graduation can be found at: <u>http://www.southernct.edu/offices/registrar/apply-graduation/apply-for-degree-grad.html</u>

A Graduate Commencement Participation Form is required to walk at graduation. This information can be found on the School of Graduate Studies website.

9) <u>Time Limitation To Complete Programs</u>

All requirements for a graduate degree at SCSU must be completed within a period of six years after the semester in which the first graduate course is completed and not with the date of acceptance.

Under certain circumstances an extension of the six year time requirement may be granted. The graduate student must petition the graduate coordinator prior to the expiration of the course of study to request such an extension. The graduate coordinator, if he or she concurs, then forwards the request to the Graduate Dean. The student and the graduate coordinator will be notified in writing of the decision by the Graduate Dean.

If an approved Planned Program of Study has expired, and an extension has not been granted, the student may reapply to the School of Graduate Studies. When readmitted a new program of study will be developed. Graduate courses completed more than six years earlier cannot be applied to the new program unless revalidated by examination. (contact the School of Graduate Studies for the Application for Revalidation Examination.) With the permission of the course instructor and the graduate coordinator, the student may request an examination to determine the student's current state of knowledge and proficiency in the content, methodology and skills of that course. If the student passes such an examination, those classes can then be counted toward the new Planned Program. The Graduate School does not permit revalidation of more than half of the expired coursework on a planned program, i.e., no more than 15 credits of coursework may be revalidated. Revalidations must be approved and sent to the School of Graduate Studies.

10) Continuous Enrollment

Continuous enrollment requires that every graduate student be enrolled in a course every spring and fall semester from the time of acceptance by the School of Graduate Studies until completion of all requirements for the graduate degree.

Students who are not enrolled in a course during the semester in which they are completing work for a thesis, dissertation, practicum, internship, student teaching, or laboratory research must register and pay for IDS 900 (1 credit): Course Continuation. This course must be taken each spring and fall term until the work is completed.

Students who must maintain their matriculation status while completing comprehensive exams or who wish to maintain their matriculation status while taking a leave of absence must register and pay for IDS 901 (0 credit): Continuous Enrollment.

Graduate students who have completed all courses must remain continuing students until all degree requirements have been met. Failure to register for an academic course, IDS 900 or IDS 901, will result in automatic withdrawal from the program.

In extenuating circumstances, a student may petition for a waiver (available at http://www.southernct.edu/academics/graduate/currentstudents/forms.html) to the continuous enrollment policy. The waiver form must be signed by the Graduate/Program Coordinator before sending it to the Dean of Graduate Studies. Additionally, the form must be delivered to the School of Graduate Studies which is located in Engleman Hall (EN) B110. If the waiver is approved by the Dean of Graduate Studies, a letter to that effect will be sent to the student with a copy to the Graduate/Program Coordinator, and the approved petition will be placed in the student's permanent file.



IDS 901 Course Waiver Request Form

First Name		Last Name	
Street Address			
City		State	Zip Code
Student I.D. Number	Semester for which requesting the waive	you are er	Year (YYYY)
Under special circumstances, the Dear may be authorized for reasons where the request is submitted before the end of the	n of Graduate Studies he student is not able the add/drop period of	may authorize a wai of any work toward h f the semester for wh	ver of IDS 901. These requests his/her program, provided the hich the waiver is requested.

Reason for Waiver Request

Medical/Caregiving (situation must be such that it prevents you from participating in any educational activity. A doctor's note is required.)

Call to Active Duty

Remember, in order for your waiver request to be considered, you must submit the request form, along with your supporting documentation by the end of the add/drop period for which the refund is being requested.

Student's Signature	9	Date		
Graduate Coordina	tor's Signature	Date		
Submit to: Sch	ool of Graduate Stud	ies, 501 Crescent Stre	eet, EN B110, New Haven, CT	06515
Below For Graduate S	School Use Only			
Waiver Status				
Granted	Denied			



Graduate Continuation Course Registration Form

First Name of Student		Last Name of	fStudent
Street Address			
City		State	Zip Code
Student I.D. Number	Semester for which are requesting regi	i you stration	Year (YYYY)
Course for which you are reque	sting permission to r	egister	
Course	IDS 900 prov campus for s dissertation, laboratory re IDS 901 prov are working leave of abse	vides the use o students workin practicum, inte search. vides continuec on comprehens ence.	f facilities, and technology on og on thesis, special project, ernship, student teaching, or d matriculation for students who sive exams or who wish to take a
Advisor's Name:			
If you are registering for IDS 900 one of the following for which yo work:	0, please choose ou are continuing	For IDS work:	900: Professor supervising
Student's Signature	Date		
Advisor's Signature	Date		

11) Graduate Student Registration

Graduate students who have completed a Planned Program of Study and been formally admitted to the graduate program by the Dean of Graduate Studies are considered matriculated students and may register for courses as a full-time (more than 9 credits) or a part-time (less than 9 credits) student.

Graduate students who have not been formally accepted by the Dean of Graduate Studies and have not completed a Planned Program of Study are non-matriculated students and may only register for fewer than 9 credits before they must fully matriculate.

Graduate students are charged graduate rates for both graduate and undergraduate courses. (Tuition or fees are based on student level not course level.) Graduate students who register for 9 or more credits are charged the full-time graduate rate. Students enrolled in less than 9 credits pay the per-credit rate.

12) Planned Program of Graduate Study

On the next five pages are copies of the Planned Program of Graduate Study that must be completed before the student is accepted as a matriculated student in the M.S. in Chemistry Graduate Program at Southern Connecticut State University.

There are five options:

Plan A: Thesis Plan B: Comprehensive Exam Plan C: Certification in Secondary Education Plan D: Accelerated B.S./M.S. Plan E: Professional Science Masters

The Planned Programs are filled out by the Graduate Coordinator during a meeting with the graduate student. The programs should be filled out before the student completes three classes (9 credits) of study.



SOUTHERN CONNECTICUT STATE UNIVERSITY

PLANNED PROGRAM OF GRADUATE STUDY

MASTER OF SCIENCE

CHEMISTRY

Address:	
Home Phone:	
Work Phone:	
Email:	
Banner I.D.:	

Name:

PLAN A: THESIS

REQUIRED COURSES	Credits	Date	RESEARCH	Credits	Date
CHE 500 Advanced Organic Chemistry I	3		CHE 588 Scientific Writing and Research Methods	3	
CHE 520 Advanced Physical Chemistry I	3		CHE 589 Research Thesis Proposal	3	
CHE 532 Advanced Inorganic Chemistry I	3		CHE 590 Research	3	
CHE 540 Advanced Analytical Chemistry	3		CHE 591 Research Thesis	3	
CHE 550 Advanced Biochemistry I	3		TOTAL CREDITS IN	PROGRAM	30
CHE 560 Advanced Environmental	3				
ELECTIVES (6 Credits)					
	3				
	3				
OTHER REQUIREMENTS/CONDITIONS:					

Student: Date:

. . .

Advisor:

_ Date: _____

Graduate Office Use Only Master's degree requirements must be completed by:

Associate Dean or Dean of Graduate Studies: _____ Date: _____



SOUTHERN CONNECTICUT STATE UNIVERSITY

PLANNED PROGRAM OF GRADUATE STUDY

	Name:	
	Address:	
MASTER OF SCIENCE		
	Home Phone:	
CHEMISTRY	Work Phone:	_
	Email:	
	Banner I.D.:	

PLAN B: COMPREHENSIVE EXAM

REQUIRED COURSES	Credits	Date		
CHE 500 Advanced Organic Chemistry I	3			Date of Pass
CHE 520 Advanced Physical Chemistry I	3		COMPREHENSIVE EXAM	
CHE 532 Advanced Inorganic Chemistry I	3			
CHE 540 Advanced Analytical Chemistry	3			
CHE 550 Advanced Biochemistry I	3			
CHE 560 Advanced Environmental	3			
			OTHER REQUIREMENTS/CONDITIONS:	
ELECTIVES (12 Credits)				
	3			
	3			
	3			
	3			
TOTAL CREDITS IN PROGRAM	30			

Student:	Date:
Advisor:	Date:

Graduate Office Use Only Master's degree requirements must be completed by:

Associate Dean or Dean of Graduate Studies:

Date: _____



SOUTHERN CONNECTICUT STATE UNIVERSITY PLANNED PROGRAM OF GRADUATE STUDY

MASTER OF SCIENCE

CHEMISTRY

Banner I.D.:

OF GRADUATE STUD	Ŷ
	Name:

Name: Address:	
Home Phone:	
Work Phone:	
Email:	

□ Master of Science Degree

□ Master of Science and Certification

Certification Only

REQUIRED COURSES		Credits	RESEARCH (6 credits)	Credits
CHE 500 Advanced Organic Chemistry I	(3)		CHE 590 Research and Thesis	
CHE 520 Advanced Physical Chemistry I	(3)			
CHE 532 Advanced Inorganic Chemistry I	(3)			Date of Pass
CHE 540 Advanced Analytical Chemistry	(3)		Comprehensive Exam	
CHE 550 Advanced Biochemistry I	(3)		ELECTIVES (6-12 Credits)	
CHE 560 Advanced Environmental	(3)			
SUBTOTAL				
CERTIFICATION COURSES				
EDF 520-523 (Elect one course)	(3)			
EDU 452 Student Teaching	(8)		SUBTOTAL	
EDU 453 Student Teaching Seminar	(1)		TOTAL CREDITS IN PROGRAM	
EDU 493 Science (Secondary School)	(3)		OTHER REQUIREMENTS/CONDITIONS:	
PSY 370 Educational Psychology	(3)			
SED 482 Teaching Exceptional Students in Secondary Ed Class	(3)			
HIS 110 or 112 US History	(3)			
SHE 203 School Health	(3)			
SUBT	OTAL			
PRAXIS I PASSED 🗆 WAIVED 🗅 DATE:			□ THESIS □ COMPREHENSIVE EXAM □ SPECIAL PRO	JECT
State requirements for entry to teacher certification have been met.		~ 1		
		Student: _	Date	:
Dr. Susan Cusato, Director of Secondary Science Cert. Date	e	Advisor:	Date	:

Graduate Office Use Only	
Master's degree requirements must be completed by:	

Associate Dean or Dean of Graduate Studies:

Date:

STEPS IN ADMISSION TO A SECONDARY CERTIFICATION PROGRAM

- Step 1. Application to the Graduate School and official transcripts are submitted to the Graduate Office. Copies are made and sent to the coordinator of the graduate program in the department designated by the student.
- Step 2. The department graduate program coordinator requests any additional information or documentation required by the program from the student and sets up an initial interview.
- Step 3. At the interview, a planned program of graduate study is developed and the student is given, with explanation and instructions:
 - a. Memorandum from the School of Education to "All Graduate Candidates Seeking Teacher Certification"
 - b. Application to the School of Education
 - c. One page review of the six standards
 - d. Two blank copies of the recommendation form letters

It is the applicant's responsibility to complete the application to the School of Education immediately so it may be left with the graduate program coordinator and as soon as possible to:

- 1. Register for and take the Basic Skills Assessment Test (PRAXIS I) or apply for waiver.
- 2. Write and forward to the School of Education (Secondary Education Program) the required essay.
- 3. Have the letters of recommendation completed and sent to the School of Education (Secondary Education Program).
- Step 4. The department program coordinator should forward to the School of Education:
 - 1. student's application to School of Education
 - 2. copy of the student's transcripts
 - 3. copy of the student's planned program

These documents will initiate the student's School of Education folder.

- Step 5. As soon as the applicant has passed or waived PRAXIS I forwarded the required essay, and has been assured that the two letters of recommendation have been forwarded, he or she should telephone the School of Education, (203) 392-5900, for an appointment.
- Step 6. Representatives of the School of Education will determine whether the standards have been met. If they have been met, a written statement to that effect will be sent to the academic program advisor, the Graduate Office and to the Student Teaching Office. A student will not be scheduled for student teaching until the standards have been met. Following is the time frame:
 - a. For students planning to student teach in the Spring, all information must be on file in the Student Teaching Office by October 1.
 - b. For students planning to student teach in the Fall, all information must be on file in the Student Teaching Office by March 1.
- Step 7. Upon receipt of written clearance from the School of Education, the Graduate Office will approve the planned program and send a letter of acceptance to the student.

Rev. 1/95



SOUTHERN CONNECTICUT STATE UNIVERSITY

PLANNED PROGRAM OF GRADUATE STUDY

MASTER OF SCIENCE ACCELERATED B.S./M.S. CHEMISTRY

Name: Address:	
Home Phone:	
Work Phone:	
Email:	
Banner I.D.:	

PLAN: THESIS

RESEARCH (12 credits)	Credits	Date	GRADUATE COURSES – SENIOR YEAR (6 credits)	Credits	Date
CHE 490 (or HON 494)	3		500 Level Chemistry Course		
CHE 491 (or HON 495)	3		500 Level Chemistry Course		
THESIS DEFENSE					
			TOTAL CREDITS IN PROGRAM	30	
CHE 590	3				
CHE 591	3		OTHER REQUIREMENTS/CONDITIONS:		
THESIS DEFENSE					
GRADUATE CHEMISTRY COURSES (5 th YEAR) (12 credits)					
Core Graduate Chemistry Course					
Core Graduate Chemistry Course					
Core Graduate Chemistry Course					
CHE 588 or Graduate Chemistry Elective					

Student:	Date:
Advisor:	Date:
Associate Dean or	
Dean of Graduate Studies:	Date:

Graduate Office Use Only Master's degree requirements must be completed by:



SOUTHERN CONNECTICUT STATE UNIVERSITY PLANNED PROGRAM OF GRADUATE STUDY

	Name:
PROFESSIONAL SCIENCE	Address:
MASTERS CHEMISTRY	
	Home Phone:
	Work Phone:
	Email:
	Banner I.D.:

PLAN: COMPREHENSIVE EXAM

REQUIRED COURSES	Credits	Date		
CHE 500 Advanced Organic Chemistry I	3			Date of Pass
CHE 520 Advanced Physical Chemistry I	3		COMPREHENSIVE EXAM	
CHE 532 Advanced Inorganic Chemistry I	3			
CHE 540 Advanced Analytical Chemistry	3			
CHE 550 Advanced Biochemistry I	3			
CHE 560 Advanced Environmental	3			
			OTHER REQUIREMENTS/CONDITIONS:	
BUSINESS COURSES (18 Credits)				
MBA 500 Management Process	3			
MBA 502 Statistical Decision Making	3			
MBA 505 Marketing Management	3			
MBA 537 Product Management	3			
MBA 548 Operations Management	3			
MBA 551 Business Ecological Sustainability	3			
TOTAL CREDITS IN PROGRAM	36			

	Student:	Date:
	Advisor:	Date:
Graduate Office Use Only Master's degree requirements must be completed by:	Associate Dean or Dean of Graduate Studies:	Date:

13) Five Year Rotation of Graduate Courses

On the following page is a five-year rotation of the graduate courses offered by the Chemistry Department at Southern Connecticut State University.

Two courses are offered each semester; the fall semester generally offers two core courses, and the spring semester generally offers one core course and one elective.

COURSE	ROTATION
CHE 500 Advanced Organic Chemistry I	Odd Spring
CHE 520 Advanced Physical Chemistry	Odd Fall
CHE 532 Advanced Inorganic Chemistry	Odd Spring
CHE 540 Advanced Analytical Chemistry	Even Spring
CHE 550 Advanced Biochemistry I	Even Fall
CHE 560 Advanced Environmental	Odd Fall

Rotation – Core Graduate Courses

Rotation – Graduate Courses

COURSE	ROTATION
CHE 520 Advanced Physical Chemistry	Fall 2013
CHE 560 Advanced Environmental Chemistry	Fall 2013
CHE 540 Advanced Analytical Chemistry	Spring 2014
CHE 592 Chemical Education	Spring 2014
Chemistry Elective	Fall 2014
CHE 550 Advanced Biochemistry I	Fall 2014
CHE 500 Advanced Organic Chemistry I	Spring 2015
CHE 592 Chemical Education	Spring 2015
CHE 520 Advanced Physical Chemistry	Fall 2015
CHE 560 Advanced Environmental Chemistry	Fall 2015
CHE 540 Advanced Analytical Chemistry	Spring 2016
CHE 532 Advanced Inorganic Chemistry	Spring 2016
Chemistry Elective	Fall 2016
CHE 550 Advanced Biochemistry I	Fall 2016
CHE 500 Advanced Organic Chemistry I	Spring 2017
CHE 532 Advanced Inorganic Chemistry	Spring 2017
CHE 592 Chemical Education	Fall 2017
CHE 550 Advanced Biochemistry I	Fall 2017
CHE 500 Advanced Organic Chemistry I	Spring 2018
CHE 532 Advanced Inorganic Chemistry	Spring 2018
Chemistry Elective	Fall 2018
CHE 550 Advanced Biochemistry I	Fall 2018

14) <u>Research Areas</u>

Listed below are the primary research interests of the faculty in the chemistry department. If you have interest in pursuing a thesis with a faculty member, you should contact that person directly for more information.

Dr. Ericka C. Barnes (Physical and Computational Chemistry)

My research interests involve the development of computational methods, in particular, the construction of consistent basis sets for extrapolation to the complete basis set limit. Reliable benchmarks for the development of wavefunction methods are lacking, owing to the prohibitively expensive computational resources required for such high-level theories. As such, extrapolations using a consistently constructed family of basis sets can be utilized to obtain these benchmarks in a more cost-effective manner.

As computational chemistry is inherently multidisciplinary, there are also plenty of opportunities for utilizing calculations in the elucidation of molecular structures, stabilities, and mechanisms. An example of a project in this direction would be the use of DFT (density functional theory) techniques to investigate organic light emitting diode (OLED) type complexes, and how varying the functional groups on the ligands affect properties such as fluorescence, structure or reactivity. A typical undergraduate project could also involve providing computational support to ongoing experimental research in the department, for example, involving the quantum mechanical investigation of the structural and proton NMR properties of various cyclodiborazane derivatives synthesized in the Lesley laboratory.

Dr. Adiel Coca (Organic Chemistry)

Synthesis of small biologically active natural and unnatural molecules. Specific interests include compounds that belong to the tannin and alkaloid families, as well as other secondary metabolites. Development of new and useful chemical transformations is another interest of my. These include the use of microwave-enhanced chemistry to develop organic reactions in aqueous media.

Dr. James K. Kearns (Analytical/Instrumental Chemistry)

I am an analytical chemist and a professor of chemistry focusing on the measurement and determination of atoms and molecules. Investigating compounds with atomic and molecular spectroscopy, I use instruments to measure how atoms and molecules ionize when they interact with light and electric fields. I am particularly interested in researching the interface of biology and environmental chemistry to determine human health implications. One of these research projects seeks to improve the measurement of arsenic in water and soil samples using commercially available field kit technology, employing digital image analysis to improve the accuracy of the devices. Another research project uses mass spectrometry methods to examine endocrine disrupting molecules in fish tissue to explore the connection between environmental contaminants and their impact on biological systems. These projects are intended to engage

students in the areas of fundamental research, critical thinking, writing skills, speaking and preparation for employment.

Dr. Gregory Kowalczyk (Analytical/Environmental Chemistry)

1. Differentiation of natural/anthropogenic sources

Use of trace elemental patterns can be used to distinguish different sources in an area. These sources can be either natural or anthropogenic in nature. One area of interest is the differentiating of sources contributing to indoor dust material. Sources may be both natural and anthropogenic and examination of the trace elemental can be used to identify each source.

2. Leachability of metals from soils

The presence of metals in any media may be health issue only if the metals and easily leachable and toxic to the exposed species thus making them bioavailable. Different metals bond to different ligands in soils and vary in their leachability. The projects would involve looking at leachability rates from different Connecticut soils as leachability may also affect groundwater quality.

Dr. M. J. Gerald Lesley (Inorganic/Organometallic Chemistry)

Dr. Lesley's research involves the air sensitive palladium catalyzed synthesis of organic molecules that serve as ligands for the preparation of metal organic framework (MOF) materials. The Suzuki-Miyaura coupling methodology is the primary reaction involved in the formation of aryl boronate esters and the coupling with a variety of aryl halide derivatives to synthesize homo- and hetero-coupled biaryl ligands and tetraarylolefin ligands. MOF preparation involves the use of hydrothermal and solvothermal methods with a large number of transition metal, alkaline earth metals, and lanthanides. The resulting MOFs have potential applications for luminescence, magnetic properties, catalysis, and adsorption for small molecules (such as hydrogen, methane, CO₂, ozone etc.). The preparation of the organic molecules involves inert atmosphere synthesis, and characterization using multinuclear NMR spectroscopy, IR spectroscopy, GCMS, single crystal X-ray diffraction, and standard physical methods of analysis. MOFs are prepared at SCSU and through collaboration with Dr. Ian Williams at the Hong Kong University of Science and Technology (HKUST). The structural studies are performed at HKUST and include X-ray diffraction, powder diffraction, TGA, HRMS-FAB, magnetic measurements, and luminescence measurements. At SCSU Dr. Lesley has engaged both undergraduate and graduate students in all aspects of this research.

Dr. JiongDong Pang (Biochemistry)

A sample project in biochemistry for undergraduate students: Cloning and Sequencing Lactate Dehydrogenase (LDH) gene

LDH is an abundant enzyme involved in anaerobic fermentation in animals and plants. Students will amplify this conserved gene from a novel genome (ginger, for example) whose LDH gene sequence is not known to date. Students will extract genomic DNA from the chosen plant and amplify the LDH gene using PCR and nested PCR. Students have to design and test the primers for PCR on the known LDH gene sequences. If successful, the PCR products will be purified, cloned into a plasmid vector and the ligated vector will be transformed into the appropriate bacteria host. Further steps include amplifying, purifying and sequencing the plasmid DNA. Extensive bioinformatics analysis will be followed to analyze the new LDH gene sequences. The new data generated can be deposited in GenBank and the project is suitable for undergraduate research and presentation.

A sample project for graduate students: Early Chemistry on Earth

How could amino acids be polymerized in a non-living system? Catalysis by clay is known. Rock surfaces may also provide catalytic surfaces. The results of the Miller-Urey experiments show a good mix of amino acids which yield amphiphilic, short peptides such as VVVVVE. Many hydrophobic amino acids were produced as well as lesser amounts of Asp (D) and Glu (E). Such peptides would form micelles, vesicles, etc as shown by Zheng et al. at MIT. The goal of this project is to devise hypotheses which can be tested by not so complicated experiments. We can try one or both of the followings: 1. polymerizing esters of amino acids. 2. self organizing of peptides of random sequences.

Dr. Todd Ryder (Chemical Genomics/Medicinal Organic Chemistry)

My research interests are focused on medicinal chemistry and chemical genomics. In particular, I am interested in the design and synthesis of novel, biologically-active molecules with the potential to address unmet medical needs. These molecules can serve as a starting point for drug discovery and as valuable research tools to investigate complex biological systems. In this context, students in my lab have the opportunity to develop skills in synthetic organic chemistry, ligand design, and the interpretation of biological screening data. We use a variety of techniques such as molecular modeling, traditional and parallel organic synthesis, flash chromatography, HPLC, NMR, and MS. Therapeutic areas of interest include cancer, inflammation, and neuroscience.

Dr. Jeffrey A. Webb (Educational Chemistry)

My research efforts are focused on two primary areas of focus: utilizing new technology /new teaching methods in the classroom and developing unique inquiry-based laboratories/demonstrations.

For the introduction of new technology into the classroom students will be involved actively with developing novel classroom uses for technologies such as: handheld tablets, smart boards, classroom clickers, and "App" development. A typical student project might involve a student developing an "App" which can be utilized in the classroom, or a unit where clicker technology can be utilized and assessed. In addition to technologic based educational studies, I am interested in utilizing novel teaching method(s) in the classroom, and assessing their usefulness

in enhancing student learning (examples include meta/cognitive study skills)

Another avenue of research a student might focus on will be assisting in the ongoing efforts to author and develop novel, inquiry-based labs that can be utilized in a Chemistry Curriculum (with a particular focus in General Chemistry II, and the Chemistry for Non-Science Majors Laboratory Course at the College level). A typical project might involve a student developing a new chemistry laboratory or chemical demonstration.

15) Thesis Proposal Requirements and Guidelines

On the following pages are the School of Graduate Studies Thesis Proposal Requirements and Guidelines.

Included are examples of various types of studies. Chemistry students will use as an example "An Outline of an Investigative or Experimental Study". The student must clearly indicate that they are using the style of the American Chemical Society in their work.

There is also a Thesis Proposal Signature Sheet that must accompany the submitted Thesis Proposal.

The Thesis Proposal should be submitted prior to beginning experimental work on the thesis. While working on the Thesis Proposal, the student normally enrolls in CHE 588 (Scientific Writing and Research Methods) and CHE 589 (Thesis Proposal).

The most current guidelines can be found at:

http://www.southernct.edu/academics/graduate/research/

SOUTHERN CONNECTICUT STATE UNIVERSITY SCHOOL OF GRADUATE STUDIES Revised Thesis Proposal Requirements and Guidelines November 2012

POLICY

The thesis advisor, second reader and the department chairperson must approve the thesis proposal. The thesis proposal approval form must then be submitted to the Dean of the School of Graduate Studies prior to preparing a final thesis. Each Graduate

School/Department/Program may have requirements that exceed those in this document; however, they must be consistent with the School of Graduate Studies' requirements. Departmental requirements beyond the minimum stated here must be in writing and submitted to the School of Graduate Studies. It is the responsibility of the student to be aware of, and comply with, all requirements.

1. <u>Eligibility</u>

A student who has completed fifteen (15) credits in his/her planned program and has the permission of his/her advisor may apply for the thesis capstone experience if he/she:

- A. is a matriculated student and has received a letter of acceptance from the School of Graduate Studies.
- B. has a QPA of 3.0 or better for all courses taken in the planned program to date.
- C. has obtained a thesis advisor with the approval of the Graduate Program Director or Coordinator.

2. <u>Research Involving Human or Animal Subjects</u>

By federal law, all research involving human or animal subjects requires prior ethical review and approval by an independent review committee. At Southern Connecticut State University (SCSU), the relevant committee for research involving human subjects is the Institutional Review Board (IRB). No data collection or recruitment of subjects may take place without IRB approval and no vertebrate animal capture, purchase, or research may take place without Institutional Animal Care and Use Committee (IACUC) approval. IACUC has jurisdiction over laboratory and field research involving all vertebrate animals.

Before beginning a research study, the student should consult with the advisor regarding the procedure for obtaining appropriate ethical review. Copies of the necessary forms and instructions for submission can be obtained from the School of Graduate Studies office.

In cases where research involving human or animal subjects is being performed at another institution, approval also must be obtained from that institution's appropriate review committee(s). Copies of such approval should be attached to the SCSU forms to expedite the review process.

3. Integrity of Research and Other Scholarly Work

The School of Graduate Studies expects high standards of ethical behavior on the part of all persons involved in research and other scholarly work. Students are required to comply with the following School of Graduate Studies requirements about honesty and integrity in research, as in all scholarly activity. Students are reminded that areas of misconduct in scholarship include, but are not limited to, the following:

- A. Falsification of data, which ranges from sheer fabrication through selective reporting, including the omission of data.
- B. Plagiarism, which involves taking and using, as one's own, the writing and/or ideas of another and ranges from outright stealing to inadequate attribution.
- C. Violations of rules to protect patients, research subjects, and other persons and animals, which, while not fraudulent in the traditional sense, are unethical and undermine the integrity of the academic process.
- D. The use of commercial organizations or paid individuals to write all or part of the thesis.

Violations of the requirement for integrity of scholarship shall result in a failing grade for the thesis and dismissal from the Graduate School.

4. Thesis Proposal

Preparing a master's thesis is a time-honored tradition in academe, yet many students who are about to undertake such a project have only the vaguest notion of what a thesis is. No single definition of a thesis exists since what constitutes an appropriate thesis varies considerably among disciplines and even among faculty members within a discipline.

Given this lack of uniformity about what a thesis is (and the resulting anxiety it invokes in students), how can we describe a thesis? Here are four common characteristics.

First, a thesis is an exercise in research and/or the creation of an original imaginative work. You are asked to demonstrate your skills in using the methodologies of your field to examine a topic of interest to your discipline.

What constitutes research methodology varies widely across fields. For example, in the physical sciences, research often (but not always) involves the use of experimental procedures in a laboratory setting; in the humanities, research might involve a descriptive or interpretive analysis of some piece of literature; and in the social sciences, research may involve surveys or field studies.

A "topic of interest to your discipline" means an area of research that is generally viewed as fruitful by other researchers in the field. Within any discipline, there are typically many sub-fields of interest. Research activities such as a thesis usually focus on a limited area, exploring some very specific issues or questions.

A second characteristic of a thesis is that, no matter what the topic or methodology used, the intent of the research is to make a contribution to your field. A contribution is any new information that you can give to your discipline. This contribution can take many forms; a test of a new theory, a reinterpretation of a poem, or an evaluation of a curriculum are but a few examples. The list is endless, but the common element is this: an addition to the knowledge base of your field requires you to have an in-depth understanding of some particular area of your discipline. You must know the current state of the art if you are to add to it.

In this regard, a thesis represents the capstone activity of your graduate degree program. To complete it successfully, you must demonstrate mastery over both a specific content area and the methodology of your discipline.

Third, a thesis represents an opportunity to work closely with one or more faculty members in your field. One characteristic of good graduate education is the opportunity for faculty and students to work together in a close relationship characterized by mentoring. While much of the content of any field can be taught in traditional classes, there is always some art to any discipline. These nuances are best conveyed in the context of a close working relationship. Working on a thesis, under the tutelage of faculty, provides an opportunity for learning that is not typically found in other graduate school activities.

The fourth and final characteristic of a thesis is more personal in nature. A thesis is an exercise in self discipline. Completing a thesis requires sustained initiative and focus. Unlike classes, there are no fixed times that you must meet; there may not be specific deadlines imposed by the instructor or your department. You provide the structure. The choice of topic and faculty advisor(s) is largely yours, within any guidelines that may have been developed by your department. Indeed, faculty will generally look to you to be the initiator of your thesis work.

To recap, a thesis is a well-written document that describes an independent research activity undertaken to explore some problem or topic of interest to the field or that gives formal expression to a creative project. The goal of this activity is to add new knowledge to the discipline and to demonstrate that you are competent and worthy of having an advanced degree in the field.

A. Pre-Proposal

The information in this section represents only the requirements of the School of Graduate Studies. Each candidate must check with his or her department for any additional requirements that may have been established by the department or school. The pre-proposal procedures are as follows:

- a. Obtain a thesis advisor through the procedures that are in effect in your department. It is the candidate's responsibility to find a member of the graduate faculty who is willing to serve as thesis advisor. The thesis advisor must have experience in the field. It is important at this stage to have a clear understanding with your thesis advisor about how much time he/she is willing to give to your thesis, and how and when contact and/or communication will be made.
- b. After obtaining a thesis advisor and reaching agreement on a topic as well as the general approach to your thesis, the candidate should register for the department's thesis proposal course.

5. <u>Types of Thesis Proposals</u>

Before beginning work on the thesis itself, each student must prepare a thesis proposal that is approved by the thesis advisor and/or the department's thesis committee and the department chairperson. A thesis proposal must include at least the elements described in the following paragraphs.

A thesis proposal is, essentially, a written action plan of what you intend to do (your topic) and how you intend to do it (your methodology). There are five types of proposals that may be completed: (1) investigative or experimental, (2) historical or descriptive, (3) interpretive, analytical or critical, (4) creative, and (5) qualitative. Outlines of each type are provided at the end of this document.

All studies begin with a statement of the title of the proposed research followed by a description of purpose: What are the specific hypotheses or research questions that your work will examine? Next, you must address the question of need (pertinence): How is your proposed study a contribution to the field? This question is often best answered by first providing a selective review of the related literature/research and then showing how your work will fill a gap or, in other ways, clarify, extend or apply the work of others.

For an investigative or experimental thesis, the next section of your proposal describes the methodology you will use. It is important to provide enough detail of your research design and procedures so that your thesis advisor and/or members of your committee will have a clear picture of exactly how you plan to conduct your study. A major purpose of this section of the proposal is to encourage you to think through your study; the feedback you receive from your advisor or committee about your methods will likely make your thesis more focused and, ultimately, make the time you invest in it more productive. The next section of your proposal will describe how you intend to analyze or evaluate your findings in terms of the research questions you posed initially. This section is followed by a listing of references included in your proposal.

For a descriptive or historical thesis, once its scope and purpose are defined, the next step, the bulk of your research, involves collecting, reading and analyzing your source materials. The reading should be both wide-ranging and intensive, and your critical judgment should be constantly required in the process. All through this stage of research, you should try to maintain your focus lest you be led astray by the massive amount of material you encounter. The way to maintain focus is to remind yourself frequently of the purpose of your study and the questions that you seek to answer. Your references can be in the form of either footnotes (at the bottom of each page) or of endnotes (at the end of the thesis). Your bibliography should include all the works referenced in your thesis and any works not cited in your thesis but important to the subject of your study.

For an interpretive, analytical, or critical thesis, the specific format to be used will be determined by the academic department and the thesis advisor. However, it must include the following elements:

- a. A specific description of the problem or topic being studied and a summary of the argument and its supporting elements, including any necessary definitions.
- b. A statement of the significance of the problem or topic, including any limitations.
- c. A review of the scholarly literature on the topic.
- d. An explanation of the design, methodology and theoretical approach of the study describing what information will be required, how it will be secured, how it will be refined, integrated and applied to the topic of study, and why the stated design, methodology and theoretical approach were chosen.
- e. A list of works cited and consulted that provides complete information for each reference mentioned in the literature review and also any relevant references not cited in the review but which will be of value in the course of the project.

For a creative thesis, such as original poetry, fiction, and/or other works, the format will be determined by the respective department and the thesis advisor. However, for acceptance by the School of Graduate Studies, a creative project thesis proposal must include at least the following elements:

- a. A clear description of the nature, scope, and substance of the final creative product. For example, a student could include a collection of poems that have a common theme running through them. The length of the poems will range from
- b. A brief discussion of the major elements of the craft that will be used and how they will be used to achieve certain aims or effects.
- c. An explanation of why a creative thesis was chosen and why the specific form and genre were selected.
- d. A bibliography of all references used in the development of the creative thesis.

For a qualitative thesis, the specific format to be used will be determined by the academic department and the thesis advisor. However, it must include a statement of purpose, a review of relevant research, a description of the research methodology, and a bibliography.

In addition to substance, a thesis will be evaluated on writing style and fluency, which includes correct grammar, proper spelling, and consistency of chapter headings, subheadings, footnotes, endnotes, references and bibliography. Attention to such details as writing the proposal in the future tense is imperative.

Different disciplines use different formats or styles (e.g. APA, MLA) for their professional writing. However, you should check with your department to determine which style it requires. If your discipline does not require a specific style, you should follow the one used by the leading journal in your discipline (confer with your thesis advisor for the name of that journal). It is important to note that the format requirements listed in *The School of Graduate Studies Guide to Formatting Your Thesis, Special Project Proposal, or Dissertation* supersede those of individual style manuals

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5. <u>Submission of Thesis Proposal to the Thesis Committee, Department</u> <u>Chairperson, and to the Graduate Dean</u>

- A. Submission of proposal: The student submits his proposal to his/her thesis committee and department chairperson for review and approval.
- B. Thesis Proposal Signature Sheet: After approval of the thesis proposal by the thesis advisor and the department chairperson, the candidate must complete a **thesis proposal signature sheet** (which is located at the end of this document).
- C. Submission of Signature Sheet: The student must submit the completed thesis proposal signature sheet to the School of Graduate Studies.
- D. The School of Graduate Studies will retain the original copy of the signature sheet and send a photocopy to the candidate and the thesis advisor. When the student receives this copy, he/she can commence work on the thesis.

7. <u>Completing the Thesis</u>

Upon receipt of approval of the proposal, the candidate should work closely with the thesis advisor to complete the thesis. It is necessary to follow the *SCSU Thesis Requirements and Guidelines and The School of Graduate Studies Guide to Formatting Your Thesis, Special Project Proposal, or Dissertation* in preparing the final thesis. The student also must select a recognized academic style manual (e.g. APA) that will be used in writing the thesis manuscript.

The style manual selected must be identified at the time of submission of the thesis proposal.

It is the responsibility of the thesis advisor and the department to insure that the thesis meets the standards of the academic discipline, the academic department, and the School of Graduate Studies. The review by the student's thesis committee and Department Chair will look to see that the thesis does what the candidate and the thesis advisor agreed it would do in the thesis proposal. Particular emphasis will be placed on writing style, proper format, and consistency between the thesis proposal and the final thesis.
EXAMPLE 1 AN OUTLINE OF AN INVESTIGATIVE OR EXPERIMENTAL STUDY

- A. Title of proposed thesis
- B. Statement of purpose(s)
- C. Relationship of study to related research and analysis of pertinent research (literature review)
- D. Statement of need or relevance of the study
- E. Investigatory or experimental procedures to be followed:
 - 1. Experimental design
 - 2. Subjects to be used
 - 3. Measures used (surveys/interviews/psychological instruments, etc.)
 - 4. Plan for the analysis of data
- F. Bibliography

EXAMPLE 2 AN OUTLINE OF A DESCRIPTIVE OR HISTORICAL STUDY

- A. Title of proposed thesis
- B. Statement of purpose(s)
- C. Relationship of study to related research and analysis of pertinent research (literature review)
- D. Research plan
- E. Proposed chapter development with discussion of major subheadings
- F. Bibliography

EXAMPLE 3

AN OUTLINE OF AN INTERPRETIVE, ANALYTICAL OR CRITICAL STUDY

- A. Title of proposed thesis
- B. Summary of the argument and its significance as a contribution to knowledge
- C. Review of the criticism and scholarly literature on the subject
- D. Description of the analytical/critical/interpretative methods and the theoretical approaches that will be used
- E. List of works cited and consulted

EXAMPLE 4 AN OUTLINE OF A CREATIVE STUDY

- A. Title of proposed thesis
- B. Statement of purpose(s), e.g., a clear description of the nature and themes of the final creative product.
- C. A brief discussion of the major elements of the craft that will be used and how they will be used to achieve certain aims or effects.
- D. An explanation of why a creative thesis was chosen and why the specific form and genre were selected.
- E. Bibliography

EXAMPLE 5 AN OUTLINE OF A QUALITATIVE STUDY*

- A. Title of proposed thesis
- B. Statement of purpose/description of phenomenon to be studied
 - 1. Significance to field of study
 - 2. Research questions
- C. Review of relevant research as appropriate to methodology used (include researcher's perspective)
- D. Research methods
 - 1. Sample selection
 - 2. Data gathering technique
 - 3. Data analysis methods
 - 4. Limitations
 - 5. Ethical considerations
- E. References

*Examples of research using qualitative methods: phenomenological, ethnographic, grounded theory, philosophical investigations

Southern Connecticut State University School of Graduate Studies Thesis Proposal Signature Sheet [Form must be typed]

Name:				Banner I.D.:
Address:				
City:				
State:				
Zip Code:		_		
Program:				
Number of Cree	dits Completed		-	
Name of Thesis Advisor:				
Name of Secor	nd Reader:			

The standard style manual to be used in writing the thesis:

Student's Statement: I recognize that once my committee, department chair, and Dean of the School of Graduate Studies approve my thesis proposal, I am expected to complete the scholarly work described in the proposal in accordance with department and School of Graduate Studies requirements. I have consulted with my advisor regarding the procedure for obtaining appropriate ethical review and IRB or IACUC approval of my research and I am attaching a copy of the approval(s) to this document.

Student's Signature

Advisor/Reader/Chairperson Statement: I have reviewed the enclosed thesis proposal and find it meets the standards of the discipline and the department for a thesis proposal.

Date

Signature of Thesis Advisor	Date	
Signature of Second Reader	Date	
Signature of Department Chairperson	Date	

16) Thesis Guidelines

On the following pages are the School of Graduate Studies Thesis Guidelines.

Included are the roles and responsibilities of the student and the Thesis advisor, the Thesis format, an example of a Title Page for a Master's Thesis, an example of a Copyright notification, and an example of the Approval Page that must be signed by the student, Thesis advisor, second reader, if any, and Chair of the Chemistry Department.

While working on the Thesis, the student normally enrolls in CHE 590 (Thesis Research) and CHE 591 (Thesis).

Following the Graduate School Requirements are the Chemistry Department's specific requirements.

SOUTHERN CONNECTICUT STATE UNIVERSITY SCHOOL OF GRADUATE STUDIES Revised Thesis Requirements and Guidelines July 2011

INTRODUCTION

The Master's Thesis is a capstone experience of the master's degree candidate and offers evidence of the student's original research and the results of that research; an approved creative project; or an interpretive, analytical work. In completing the thesis, the student demonstrates a capacity for independent research, an ability to organize and present data logically, and proficiency in the use of scholarly language. The final thesis evidences originality, critical and independent thinking, appropriate format, organization, and thorough documentation.

Copies of the thesis are placed in the University library and are sent to ProQuest[™] where they are made available to the international community of scholars. Therefore, each thesis must meet professional standards of published research. The student, the student's thesis advisor, and the School of Graduate Studies expect to see evidence of careful attention to style and format in the thesis document.

The SCSU Thesis Requirements and Guidelines and The School of Graduate Studies Guide to Formatting Your Thesis, Special Project Proposal, or Dissertation are derived from standard practices among universities, libraries, and publishers. The student is expected to read and follow both documents throughout the thesis preparation. The SCSU Thesis Requirements and Guidelines may be used in combination with a recognized academic style manual chosen and approved by the student's department. The style format chosen must be identified at the time the thesis proposal is submitted to the student's thesis committee for review. The School of Graduate Studies holds students to the requirements set forth in the SCSU Thesis Requirements and Guidelines and The School of Graduate Studies Guide to Formatting Your Thesis, Special Project Proposal or Dissertation. It is the student's responsibility to become familiar with a recognized academic style manual (e.g. APA) and to follow it consistently. It is important to note that the SCSU Thesis Requirements and Guidelines and The School of Graduate Studies Guide to Formatting Your Thesis, Special Project Proposal or Dissertation supersede those of individual style manuals. Limitations of software packages and/or hardware deficiencies are not valid reasons for granting exceptions to these documents. The School of Graduate Studies does not accept multiple authorship.

THESIS APPROVAL PROCESS

The reputation and quality of the University's graduate programs are measured in part by the quality of theses written by graduate students. The theses provide permanent, tangible evidence of the scholarly achievements of the student and the student's graduate program. For these reasons, theses must be prepared with exceptional care for appearance, for consistency of terminology, and for correctness of citations, grammar, and spelling. It is expected that the thesis document submitted to the thesis committee will be in perfect condition and ready for approval by the committee and the department chair and for acceptance by the School of Graduate Studies.

The student's thesis committee reviews the thesis to ensure that the requirements of style specified in the *SCSU Thesis Requirements and Guidelines and The School of Graduate Studies Guide to Formatting Your Thesis, Special Project Proposal or Dissertation* have been met. Theses that are judged unacceptable are returned to the student for correction and reapproval by the faculty. Once the thesis committee has deemed a thesis to be in compliance, its members will sign the thesis signature page and notify the student to submit the thesis to the School of Graduate Studies Studies for format review and final acceptance.

ETHICS

Academic Honesty

As stated in the *SCSU Graduate Catalog*, the integrity of scholarship is the cornerstone of the academic and social structure of the University. Every aspect of graduate academic life shall be conducted in an absolutely and uncompromisingly honest manner.

Research Involving Human or Animal Subjects

By federal law, all research involving human or animal subjects requires prior ethical review and approval by an independent review committee. At SCSU, the relevant committee for research involving human subjects is the Institutional Review Board (IRB). No data or recruitment of subjects may take place without IRB approval. The Institutional Animal Care and Use Committee (IACUC) has jurisdiction over research involving non-human subjects.

Before beginning a research study, the student should consult with the advisor regarding the procedure for obtaining appropriate ethical review. Copies of the necessary forms and instructions for submission can be obtained from the Research Protection Program (RPP) office, Engleman A, 110 or on the Graduate School website: <u>http://www.southernct.edu/grad/research/</u>. In cases where research involving human or animal subjects is being performed at another institution, approval also must be obtained from that institution's appropriate review committee(s). Copies of such approval should be attached to the SCSU forms to expedite the review process.

Copyright Permission

The student has the responsibility to obtain permission to include (or quote) copyrighted material unless the student is the owner of the copyright or unless the material meets the "fair use" criteria. The student is referred to the following Proquest website for specific information on this topic: www.umi.com/en-US/products/dissertations/copyright.

ROLES AND RESPONSIBILITIES

Student

The graduate student has the primary responsibility for the Master's thesis from the genesis of the subject matter to the preparation of the thesis document. The student is responsible for ensuring that the thesis manuscript meets accepted standards for scholarly writing, including spelling, punctuation, and grammar. The student should read the *SCSU Thesis Requirements and Guidelines and The School of Graduate Studies Guide to Formatting Your Thesis, Special Project Proposal or Dissertation* thoroughly and know the requirements and guidelines for preparation of the thesis. The student also should identify and become familiar with a recognized academic style manual appropriate to his/her academic discipline and approved by his/her department.

Thesis Advisor

The thesis advisor, who must be a member of the SCSU Graduate Faculty, accepts and assumes the major responsibility to work directly with the graduate student in the research or creative project. The thesis advisor will work closely with the student in all aspects of the thesis experience, including the development of the research proposal, the implementation of the research design, the analysis of the data, and the writing of the thesis. The thesis advisor has the responsibility to proofread the thesis for accuracy in terms of both content and format. Prior to the submission of the thesis to the Department Chairperson and then to the School of Graduate Studies, it is the responsibility of the thesis advisor to review the document and ensure that it is of high quality with regard to content, literary style, adherence to the requisite style manual guidelines, and adherence to the School of Graduate Studies formatting guidelines.. Where applicable, advisors should be thoroughly familiar with the roles and responsibilities of thesis advisors as described in their academic department documents.

Thesis Committee

The student's departmental thesis committee is comprised minimally of the thesis advisor and a second reader. Each department determines the composition of the thesis committee and the roles of its members. The members of the committee should be available to the student for consultation and advisement. Where applicable, students and advisors should consult academic department documents regarding committee composition.

Department Chairperson

The thesis manuscript is forwarded from the thesis advisor to the chairperson for approval and signature. The chairperson examines the thesis to insure that it is of high quality in content and literary style. If the thesis meets those standards, the Chairperson will sign-off and notify the student that he/she can submit his/her thesis to the School of Graduate Studies for format checking and final approval.

The School of Graduate Studies

The School of Graduate Studies oversees and implements all policies and procedures governing graduate theses. It publicizes and disseminates the articulation of these policies to the graduate community. It conducts a final format check of all theses to ensure that they meet ProQuestTM publishing guidelines and it reviews all thesis signature pages to ensure that approved theses have been warranted by the faculty as meeting the highest standards of scholarship and academic integrity. Please refer to the School of Graduate Studies Guide to Formatting Your Thesis, Special Project Proposal or Dissertation, for detailed information about formatting requirements, and the approval and the submission process.

Approved by Graduate Council, December 2010

DISSERTATION Information

Overview

This manual provides master's and doctoral degree students with current guidelines and regulations regarding

- □ thesis/special project proposal/dissertation submission and approval
- □ required thesis/special project proposal/dissertation format
- □ submission of the thesis/dissertation to ProQuest[™] (Note: SCSU only requires submission

of the thesis or dissertation to ProQuest™.)

□ special project final product submission and approval

Students must confer with the graduate coordinator of their home departments for disciplinespecific guidelines that would be in addition to those listed in this manual. Please consult the current Graduate Catalog or the School of Graduate Studies website for graduate coordinator contact information by department/program.

The content and the technical formatting of the thesis/special project proposal/dissertation is the responsibility of the student. Students may wish to use the services of an academic copy editor to ensure that the submitted document is grammatically correct, free of typographic errors, and formatted according to the specifications listed in this document.

Research Involving Human or Animal Subjects

By federal law, all research involving human or animal subjects requires prior ethical review and approval by an independent review committee. At SCSU, the relevant committee for research involving human subjects is the Institutional Review Board (IRB). No data or recruitment of subjects may take place without IRB approval. The Institutional Animal Care and Use Committee (IACUC) has jurisdiction over research involving non-human subjects.

Before beginning a research study, the student should consult with his/her advisor regarding the procedure for obtaining appropriate ethical review. Copies of the necessary forms and instructions for submission can be obtained on the School of Graduate Studies website:

http://www.southernct.edu/grad/research.

In cases where research involving human or animal subjects is being performed at another institution, approval also must be obtained from that institution's IRB or IACUC representative. Copies of such approval should be attached to the RPP forms to expedite the review process.

Thesis/Dissertation Structure

(Note: Elements 9-14 below might have different titles or some elements might not be included in the thesis/dissertation. Students must refer to their department's thesis/dissertation guidelines for guidance. In the absence of such a document, students will include all of the elements below (and in the order listed).

Preliminary Pages: Preliminary pages consist of the title page, copyright notice (optional), signature page, abstract, dedication (optional), acknowledgment (optional), table of contents, list of figures, list of tables, and other lists. Preliminary pages are paginated separately from the rest of the document. The title page is counted, but it is not numbered. Beginning with the page immediately following the title page, place page numbers in lowercase Roman numerals centered at the bottom of each preliminary page. The Roman numerals are continued up to the first page of the text.

1. Title Page (see sample at the end of the document): The title of the thesis/dissertation is single-spaced and it must appear in all capital letters with each line centered on the page. The degree date should be the month in which the degree is conferred (e.g. May, August, January). The title page is not numbered, but it is counted. All text on the title page must be centered both vertically and horizontally.

2. Signature Page (see sample at the end of the document): The signature page contains the title of the thesis/dissertation and the signatures of the thesis/dissertation advisor, committee member(s), and Department Chair. The title of the thesis/dissertation must be placed in all capital letters, centered and placed two (2) inches from the top of the page. A lower-case Roman numeral is used on the signature page.

3. Copyright Notice (optional): Copyrighting of the thesis is optional. If included, the copyright page follows the title page. The copyright page is not numbered, but it is counted. The copyright symbol © should appear with your full legal name and the year centered between the margins on the page and approximately two-thirds of the way down the page e.g.,

© Copyright by Jane Doe, 2011

4. Abstract (see sample at the end of the document): The abstract summarizes the research undertaken and its findings. The abstract must be limited to 300 words or less. It should be double-spaced, adhere to the same style guide as the thesis/dissertation manuscript. The title of this page, Abstract, must be in all capital letters and placed two (2) inches from the top of the page. A lower-case Roman numeral is used on the abstract page.

5. Dedication page (optional): The dedication page provides recognition to special individuals who have provided support or assistance to the candidate during his/her thesis/dissertation research. The dedication is single-spaced and centered on the page horizontally and vertically.
6. Acknowledgments (optional): Acknowledgements recognize those who have been instrumental in the completion of the project. The title of this page, Acknowledgments, must be in all capital letters and placed two (2) inches from the top of the page. A lower-case Roman numeral is used on the acknowledgements page.

7. Table of Contents: The table of contents includes all headings from the thesis/dissertation document, appendices, the bibliography or references and the corresponding page numbers. Preliminary pages are not included. The title of the first page of this section, Table of Contents, must be in all capital letters and placed two (2) inches from the top of the page. A lower-case Roman numeral is used on the table of contents page(s).

8. List of Tables (if applicable). The list of tables includes headings from all tables that appear in the thesis/dissertation document. The title of the first page in this section, List of Tables, must be in all capital letters and placed two (2) inches from the top of the page. A lower-case Roman numeral is used on the list of tables page(s).

9. List of Figures (if applicable). The list of figures includes headings from all figures that appear in the thesis/dissertation document. Preliminary pages are not included. The title of the first page in this section, List of Figures, must be in all capital letters and placed two (2) inches from the top of the page. A lower-case Roman numeral is used on the list of figures page(s).

Body of the thesis/dissertation (follow the heading format requirements for your

discipline's style manual)

10. Introduction: This section delineates the topic or problem to be investigated and presages the research methodology and findings.

11. Literature Review: The literature review summarizes current peer-reviewed research on the research problem or topic.

12. Methodology: This section describes the research methods that the candidate employed to gather evidence or experimental results.

13. Results: This section summarizes the collected data and/or evidence and provides the candidate's interpretation of the data and/or evidence.

14. Discussion: The candidate discusses his/her research findings, provides evaluations and suggests plans for additional research.

Reference Material

15. Appendices (if applicable): The title, Appendix, appears in capital letters centered two (2) inches from the top of the first page of each appendix. All appendices must be listed in the Table of Contents. Each appendix must have a letter designation (in order of appearance in the text of the thesis/dissertation). (Example: APPENDIX A: IRB APPROVAL LETTER, APPENDIX B: LETTER OF COLLABORATION)

16. References (or Bibliography): The title, References (or Bibliography), appears in capital letters centered two (2) inches from the top and only on the first page of the section. (Example: REFERENCES)

School of Graduate Studies Formatting Guidelines for Theses/Special Project

Proposals/Dissertations

1. Paper: All pages submitted to the School of Graduate Studies must be printed on 8.5 x 11 inch white bond paper that is at least 25% cotton and 20 lb. weight.

2. Font and point size: Candidates must use one of the following fonts: Arial, Times New Roman, or Helvetica font (11 or 12 point).

3. Margins: Margins must be 1 inch on all sides, top and bottom.

4. Spacing: The thesis/dissertation text must be double-spaced. Long quotations and appendices may be single-spaced. For footnotes, endnotes, and references, the candidate must follow the format used by his/her discipline.

5. Pagination: The preliminary pages (e.g. title, signature page, abstract) are numbered consecutively using lower case Roman numerals. Text, appendix, and reference pages are numbered consecutively using Arabic numerals. A page number is located at the bottom center of each page, above the 1-inch margin.

6. Tables and Figures: Tables and figures must fit within the prescribed margins. Table headings are placed at the top of the table while figure captions are placed at the bottom of the figure. All tables and figures must be clear and legible.

7. Photographs and Graphics: Digital quality photographs or scanned images/graphics must be used. Photographs and graphics must be printed directly onto the bond paper.

8. Reprint permission: Use of photographs, charts, tables, artwork, and graphs (by other authors) requires written permission from those authors. Furthermore, the author's work must be acknowledged in the document. These permissions may be listed in a separate Appendix.

Approval of the Completed Thesis/Dissertation by the Committee

1. The student submits completed copies of the thesis or dissertation to his/her committee for review. This process could take time if the committee requires the student to make revisions to the thesis or dissertation.

2. Once the committee has approved the thesis or dissertation, the members of the committee will sign the thesis/dissertation signature page and submit it to the Department Chair for approval. Once the Department Chair has approved the thesis or dissertation, he/she will sign the thesis/dissertation signature page. The thesis advisor will submit a final thesis grade. The student will then be ready to submit his/her thesis or dissertation to the School of Graduate Studies.

Submission of the Completed Thesis/Dissertation to the School of Graduate Studies

1. The student must submit, for final approval, an original, clean, unbound copy (on white bond paper) of his/her committee-approved thesis or dissertation to the School of Graduate Studies. The unbound copy must be delivered in a box or expandable fiber envelope. Students should refer to the current School of Graduate Studies Catalog for submission deadlines that correspond with specific graduation dates.

Required Submission of the Thesis/Dissertation to ProQuest™

1. The student is required to have his or her thesis or doctoral dissertation microfilmed by ProQuest[™]. The costs associated with this service are the responsibility of the student.

When submitting the thesis to the School of Graduate Studies, the student must provide the completed ProQuest[™] form (available from the School of Graduate Studies website) and a certified check or money order payable to Proquest[™].

2. If the student chooses to copyright his/her thesis or dissertation, ProQuest[™] will act as the student's agent with the Library of Congress Copyright Office. This document can be accessed at http://www.proquest.com/en-US/catalogs/services/author_services.shtml. For a detailed explanation of copyright law as it relates to graduate research, you may consult *Copyright Law and Graduate Research* by Kenneth Crews. Students may view this document at http://www.proquest.com/enUS/products/dissertations/copyright/

Thesis/Special Project/Dissertation Style Requirements by Graduate Program (Master's, Sixth-Year, Ed.D)

Note: Students must use the latest edition of the style guide. The table below lists each graduate program and its required style guide; However, students are advised to check with their program coordinator for the latest information about the required style guide.

- ACS: American Chemical Society
- APA: American Psychological Association
- CBE: Council of Biological Editors
- CHI: Chicago Manual of Style
- IEEE: Institute of Electrical and Electronics Engineers
- MLA: Modern Language Association

Program Art Biology Business Administration Chemistry Communication Disorders Computer Science Counseling and School Psychology	Style APA CBE APA ACS APA IEEE APA
Creative Writing-MFA Education English Environmental/Science Education	MFA program guidelines APA MLA APA
Exercise Science History Information and Library Science	APA CHI APA
Marriage and Family Therapy	APA
Mathematics	Chicago
Nursing	APA
Political Science	APA
Psychology	APA
Public Health	APA
Reading	APA
Recreation and Leisure	APA
Research, Statistics, and Measurement	APA
School Health Education	APA
Sociology	APA
Special Education	APA
Women's Studies	APA
World Languages and Literature	MLA

THE HISTORY OF WIDGETS IN NEW ENGLAND

ΒY

JANE DOE

A Thesis Submitted to the School of Graduate Studies in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

> Southern Connecticut State University New Haven, Connecticut May 2012

SAMPLE TITLE PAGE FOR A DISSERTATION

Chemistry Department Graduate Thesis Guideline Requirements

Unless otherwise stated all graduate theses will follow the guidelines set forth by the School of Graduate Studies with the exception of the following guidelines identified by the Departmental faculty as discipline specific requirements. These discipline specific requirements are based on the preparation of theses of senior and junior faculty and have been in place for decades.

- 1. Boldface numbers are regularly used to identify every chemical compound/structure to reduce the need for the use of lengthy names for chemical compounds. This is common practice in the preparation of theses and journal publications and is consistent with ACS styles.
- 2. Numerous spectral pictures are often included as "supplementary material" or "supporting information". The data is summarized in the text, however the actual spectra are often included in online resources. In journal publications these are cited with an online link at the end of the publication. In theses, these are found after the bibliography consistent with the order of appearance in journal articles (i.e. after the bibliography in an appendix).
- 3. The entries in the bibliography can vary with the ACS having multiple accepted styles. The style most commonly used does NOT include the title of the journal article but rather the authors, CASSI abbreviation for the journal, year, volume, and page number. Additional preferences for citing books, and portions in conference proceedings are included in the sample citation styles listed below.

Sample Citation Styles

Journals: There are several acceptable formats however the student should choose one style and use it consistently. The usual order for citing a journal article is: author, journal, year, volume, and page number with the appropriate formatting (bold, italics) as indicated below.

e.g. Irvine, G. J.; Lesley, M. J. G.; Marder, T. B.; Norman, N. C.; Rice, C. R.; Robins, E. G.; Roper, W.; Whittell, G. R. *Chem. Rev.* **1998**, *98*, 2685–2722.

Books: The format for reporting a book that has been cited follows the order: authors (usually reported if the book is a collection of papers from different authors), title, editors, publisher, publisher location, year of publication, and page number (usually if a particular author in the book has been cited).

- e.g. Brown, H. C. Boranes in Organic Chemistry; Cornell University Press: Ithaca, NY, 1972.
- e.g. Lesley, G.; Yuan, Z.; Stringer, G.; Jobe, I. R.; Taylor, N. J.; Koch, L.; Scott, K.; Marder, T. B.; Williams, I. D.; Kurtz, S. K. In *Organic Materials for Nonlinear Optics II*, Hahn, R. A.; Bloor, D.; Eds.; R. Soc. Chem. Spec. Publ.: Cambridge, 1991, Vol. 91, pp 197–203.
- 5. All equations, reaction schemes etc. prepared using ChemDraw® software must conform to the ACS style guidelines.

- 6. Different organization occurs depending on the type of journal article submitted, for example, some ACS journals have the experimental section following the conclusions, while others present this information prior to the discussion of the results. To be consistent, theses prepared in the department will present the experimental section prior to the discussion section to avoid conflicts in style.
- 7. Contrary to the guidelines, it is commonplace to include preliminary pages in the Table of Contents in the field of Chemistry. This information is provided given the large number of tables, figures, schemes, and compounds utilized in the preparation of theses.
- 8. Contrary to the guidelines, it is commonplace to include additional spacing before and after subheadings within the text of the thesis, as well as, after the main chapter title.
- 9. Tables and Schemes appear in boldface font in numerical order. The titles also appear in boldface font and use Capitalization throughout the title. (see page 148, 3rd edition of The ACS Style Guide. Figure titles do not use boldface fonts nor do they use capitalization within the title unless for a surname or other appropriate use. The term "Figure X" does appear in bold font.

The members of the Department of Chemistry have reviewed these style requirements and agree unanimously to the aforementioned revisions to the general guidelines set forth by the School of Graduate Studies.

17) GRADUATE ASSISTANTSHIPS AND GRADUATE RESEARCH FELLOWSHIPS

Full Time graduate students (9 or more credits) are eligible to apply for either a Graduate School Graduate Assistantship (GSGA) or a Graduate Research Fellowship. An example of the application forms is included on the following pages. Please check the School of Graduate Studies website for the most up-to-date application forms.

Southern Connecticut State University School of Graduate Studies Graduate Assistantship Application (GA) 2014-2015

The School of Graduate Studies announces the Graduate Assistantship (GSGA) competition for full-time matriculated graduate students for the 2014-2015 academic year. The application deadline is **Friday**, **February 14, 2014 at 4:00 PM EST.**

Eligibility

The GSGA is a non-need based award administered through the School of Graduate Studies and is contingent upon: (1) acceptance to a graduate degree or Sixth Year diploma program; (2) the achievement of a minimum 3.3 grade point average for all undergraduate coursework and 3.5 grade point average for all graduate coursework.

Students must be enrolled full-time during the year of the award therefore this award is available only to Master's and 6th Year Diploma students who are currently not engaged in completing the thesis. Students cannot hold other University supported positions (such as graduate student worker; graduate research fellow; graduate teaching assistant; resident advisor; graduate intern, or adjunct faculty) while holding the GA.

Amount of Assistantship

Each GA involves a scholarship and stipend totaling \$12,000 for the 2014-2015 academic year. Up to ten awards will be made for the academic year by the Dean of the School of Graduate Studies. Please note that awards are contingent upon availability of funds.

Required Activities

GSGA awardees will be required to complete an average of 20 contact hours of work per week during the academic year. Specific activities will be dependent on the nature of the Assistantship offered by the academic department and approved by the Dean of the School of Graduate Studies.

Application Process and Filing Deadline

The following documents must be submitted to the School of Graduate Studies, 501 Crescent Street, EN B 110, New Haven, Connecticut 06515, on or before 4:00 PM EST on **Friday, February 14, 2014.**

1. Graduate Studies Graduate Assistantship Application Checklist and Certification Statement (Form 1)

2. Completed GSGA Application form (Form 2)

3. Applicant's Personal Statement (Form 3)

4. Faculty Mentor Recommendation (Form 4) (Submitted directly to the School of Graduate Studies by the faculty mentor)

5. Transcript documenting baccalaureate degree conferment or showing current courses if degree has not been conferred

6. Transcript(s) from all undergraduate institutions where 12 or more credits have been completed

7. Transcript(s) documenting all graduate courses taken (if applicable)

Note: Official or unofficial transcripts (e.g., BANNER prints, photocopies) are acceptable. Students receiving the award may be asked to provide official verification of any submitted documents. *Applications lacking any of the required documents will not be considered by the GA Awards Committee*.

Graduate Studies Graduate Assistantship Categories

Teaching Assistantship

A teaching assistantship is an award given to a full-time matriculated graduate student who has the academic ability and the commitment to teaching necessary to assist successfully in the classroom under the supervision of a graduate faculty member. Teaching assistants receive a stipend, a non-need based scholarship, and a fee waiver in return for various teaching responsibilities that may include assisting in:

- Planning and preparation
- Designing, developing, clarifying, and revising curriculum
- Organizing and directing group activities
- Preparing presentations and other methods of instruction
- Tutoring and other forms of individualized instruction
- Assessing and grading

The Graduate Teaching Assistant cannot be the instructor of record for any given course.

Research Assistantship

A research assistantship is an award given to a full-time matriculated graduate student who assists with a graduate faculty member's research. The student works under the supervision of a faculty member in a field that is related to that student's overall academic and professional development. Research assistants receive a stipend, a non-need based scholarship, and a fee waiver in return for various research responsibilities that may include assisting in:

- Collecting, processing, and analyzing data
- Operating and maintaining equipment
- Disseminating research findings
- Conducting and supervising laboratory experiments
- Reviewing literature
- · Identifying and solving problems
- Training, supervising and monitoring other personnel
- Maintaining records and inventories
- · Recruiting research participants

The Graduate Research Assistant cannot be the primary investigator of record.

Southern Connecticut State University School of Graduate Studies Graduate Assistantship Application Checklist and Certification Statement (FORM 1)

Prior to submitting your GA application, please review and checkmark each of the items below to verify that all required items (except the Faculty Mentor Recommendation) are included in your application and that they have been placed in the proper order.

GA Application Checklist and Certification Statement (Form 1)

□ Completed GA Application (Form 2)

Applicant's Personal Statement (Form 3)

☐ Faculty Mentor Recommendation (Form 4, Submitted directly to the School of Graduate Studies by the faculty mentor)

Transcript documenting baccalaureate degree conferment or showing current courses if degree has not been conferred

Transcript(s) from all undergraduate institutions where 12 or more credits have been completed

Transcript(s) documenting all graduate courses taken (if applicable)

Note: The inclusion of materials other than those described in the checklist above or the failure to provide all of the required materials as described in the checklist above will result in the immediate disqualification of the application from the GA competition. Additionally, applications by part-time (students taking less than 9 credits per semester) will also not be considered.

Certification

I certify that the information provided in this application is accurate and complete. I understand that all documents submitted for consideration become the property of Southern Connecticut State University and will not be returned to me, nor duplicated for me for any reason. I also understand that award of a GA is subject to availability of funds and to verification of final records from all academic institutions I have attended. I further understand that holding or accepting any other University supported positions renders me immediately ineligible for the GA award. I pledge to conduct myself with the highest personal and professional demeanor, and maintain the highest ethical standards and academic integrity. I understand that the GA award may be withdrawn if I do not fulfill all of the associated responsibilities.

Printed name applicant:	
-------------------------	--

Signature of applicant: _____ Date:_____

Southern Connecticut State University School of Graduate Studies Graduate Assistantship Application 2014-2015 (FORM 2)

Please type or print all the information.

Name:				
Last		First		Middle
Current Address:	nber	Street	City	State Zip
Phone Number(s): ()			_(Home)	
()_			_ (Cellular or other	•)
Email Address (es): 1			(SCS	U email)
2			(Othe	r email)
Academic Department:				
Degree or Program:				
Name of GA Faculty Men	itor:			
Check the appropriate bo * <i>Check only one category</i>	ox below to	indicate the	type of GA for whic	h you are applying.

□ Teaching □ Research

Southern Connecticut State University School of Graduate Studies Applicant's Personal Statement (FORM 3)

Applicant's Printed Name:		
Academic Department:		
Type of GA (circle only one)	Teaching	Research

Instructions: Provide a one-page statement using the following headings: (1) My qualifications for the Assistantship; (2) Relevancy of the Assistantship to my academic and professional growth; (3) Commitment to the Assistantship. You must limit your statement to one page, single-side, using a minimum of 10-point Times Roman font style, single-spaced. Attach your personal statement to this form.

Southern Connecticut State University School of Graduate Studies Applicant's Personal Statement (FORM 3 cont.)

Provide a one-page statement:

Southern Connecticut State University School of Graduate Studies Faculty Mentor Recommendation (FORM 4)

Instructions: The applicant will give this form to his/her faculty mentor to complete. The faculty mentor will submit this form and his/her letter of recommendation directly to the School of Graduate Studies.

Applicant's Printed Name:		
Type of GA (Check only one box):	Teaching	Research
The faculty mentor must provide a letter o addressed in order under the appropriate s pages using a minimum 11-point Times R	of recommendation. Each of the dide heading (<i>e.g.</i> , evaluation provide the dide for the spaced.	e following four items must be lan), within two typed (single-sided)
(1) Qualifications of the applicant, inc	cluding academic performance	;
(2) Evidence of interest and commitm	nent to the Assistantship experi	ience

- (3) Applicant's specific activities during the Assistantship
- (4) Evaluation plan to assess student's achievements

Please attach your letter of recommendation to this Form and submit it to School of Graduate Studies, Southern Connecticut State University, 501 Crescent Street, EN B 110, New Haven, Connecticut 06515.

Mentor's Printed Name:_____

Mentor's Signature: ______Date: _____Date: _____Date: _____Date: _____Date: ______Date: _______Date: ______Date: _____Date: ______Date: __

Curriculum Vitae Instructions

Please include your current curriculum vitae (CV) in this application packet. Your CV must include the information listed below. Other information such as Volunteer Experience, Foreign Language, and Information Technology skills may also be included in the CV.

Education

List all post-secondary institutions attended in chronological order starting with the most recent. For each program, enter the beginning and end dates in the appropriate column. Cite the degrees obtained. If a degree was not conferred, enter a hyphen. Cite the cumulative GPA using two decimal points. GPAs must be cited in a manner that is consistent with the figures that appear on the attached transcripts.

For example:

Institutions attended	Dates	Degree(s) received	Number of credits	Cum. GPA
1. State University of New York	2000-2004	<i>B.A.</i>	90	3.60
2. Central Connecticut State Universit	y 2003-2004	-	12	3.45
3. University of South Florida	1995-1998	-	20	4.00

Work Experience

List all employers and job titles in chronological order starting with the most recent. For each job, enter the beginning and end dates.

Academic Honors, Awards, Publications, Exhibitions, Performances, etc.

List titles of any awards received during the course of your academic career. Include the dates and the awarding institution or agency. Please use a separate sheet if additional space is required. Do not include any other supporting materials, *e.g.*, copies of articles, photographs of awards, etc.

Southern Connecticut State University School of Graduate Studies Graduate Assistantship Scoring Rubric 2014-2015

In order to assist that applicant in preparing the application, below is the scoring rubric that will be used by the faculty reviewers as they assess your application:

All items are to be scored between 1 (high score) and 5 (low score). The summative score for all criteria will range from 5 (highest possible total rating) to 25 (lowest possible rating)

- 1. Overall clarity of the proposal. Does the student present a clear and concise explanation of the project, the intention of the project and the methods and appropriateness of the methods to be used in the research?
- 2. In your estimation given the nature of the proposal, rate the likelihood that the student will be able to fulfill the objectives of the proposal.
- 3. Review the Applicant's personal statement and rate it on the clarity of the personal statement and the importance as stated by the applicant for pursing the Assistantship
- 4. Review the Faculty Mentor's Letter of Support in terms of the strength of the recommendation and the plan for providing mentoring for the student as the student works with the mentor.
- 5. Overall rating of the assistantship application. Taking all elements into consideration, rate the overall strength of the application.
- 6. Once you have rated each individual item between 1 (high) and 5 (low), sum your scores and divide by 5. Enter this score in the appropriate column on the spreadsheet.

Southern Connecticut State University School of Graduate Studies Research Fellowship Application (RF) 2013-2014

The School of Graduate Studies announces the Research Fellowship (RF) competition for full-time matriculated graduate students for the 2014-2015 academic year. The application deadline is **Friday**, **February 14, 2014 at 4:00 PM EST.**

Eligibility

The Research Fellowship is a non-need based award administered through the School of Graduate Studies and is contingent upon: (1) acceptance to a graduate degree or Sixth Year diploma program; (2) the achievement of a minimum 3.5 grade point average for all undergraduate coursework and 3.75 grade point average for all graduate coursework and 3.75 grade point average for all graduate coursework.

Students must be enrolled full-time during the year of the award if they are in a Master's or Sixth Year Diploma Program if not in the thesis stage, or taking the required credits if in a doctoral program or completing the Master's thesis. Students cannot hold other University supported positions (such as graduate student worker; graduate assistantship, graduate studies graduate assistantship; graduate teaching assistant; resident advisor; graduate intern, or adjunct faculty) while holding the RF. Amount of Fellowship

Each RF involves a scholarship stipend totaling \$12,000 for the 2014-2015 academic year. Up to ten awards will be made for the academic year by the Dean of the School of Graduate Studies. Please note that awards are contingent upon availability of funds.

Required Activities

The RF supports an awardee's independent research (under the guidance of a member of the Graduate faculty). As such, each awardee will be required to perform the activities outlined in his/her research proposal.

Application Process and Filing Deadline

The following documents must be submitted to the School of Graduate Studies, 501 Crescent Street, EN B 110, New Haven, Connecticut 06515, on or before 4:00 PM EST on **Friday, February 14, 2014.** 1. Research Fellowship (RF) Application Checklist and Certification Statement (Form 1)

2. Completed Research Fellowship Application form (Form 2)

3. Applicant's Personal Statement (Form 3)

4. Faculty Mentor Recommendation (Form 4) (Submitted directly to the School of Graduate Studies by the faculty mentor)

5. Transcript documenting baccalaureate degree conferment or showing current courses if degree has not been conferred

6. Transcript(s) from all undergraduate institutions where 12 or more credits have been completed

7. Transcript(s) documenting all graduate courses taken (if applicable)

Note: Official or unofficial transcripts (e.g., BANNER prints, photocopies) are acceptable. Students receiving the award may be asked to provide official verification of any submitted documents. *Applications lacking any of the required documents will not be considered by the RF Awards Committee*.

Southern Connecticut State University

School of Graduate Studies

Research Fellowship Application Checklist and

Certification Statement (FORM 1)

Prior to submitting your RF application, please review and checkmark each of the items below to verify that all required items (except the Faculty Research Advisor Recommendation) are included in your application and that they have been placed in the proper order.

RF Application Checklist and Certification Statement (Form 1)
Completed RF Application (Form 2)
Applicant's Statement of Research (Form 3)
Faculty Research Advisor Recommendation (Form 4, Submitted directly to the School of Graduate Studies by the faculty mentor)
Transcript documenting baccalaureate degree conferment or showing current courses if degree has not been conferred
Transcript(s) from all undergraduate institutions where 12 or more credits have been completed
Transcript(s) documenting all graduate courses taken (if applicable)

Note: The inclusion of materials other than those described in the checklist above or the failure to provide all materials as listed in the checklist above will result in the immediate disqualification of the application from the RF competition.

Certification

I certify that the information provided in this application is accurate and complete. I understand that all documents submitted for consideration become the property of Southern Connecticut State University and will not be returned to me, nor duplicated for me for any reason. I also understand that award of a RF is subject to availability of funds and to verification of final records from all academic institutions I have attended. I further understand that holding or accepting any other University supported positions renders me immediately ineligible for the RF award. I pledge to conduct myself with the highest personal and professional demeanor, and maintain the highest ethical standards and academic integrity. I understand that the RF award may be withdrawn if I do not fulfill all of the associated responsibilities.

Printed name applicant:

Signature of applicant:	 Date:

Southern Connecticut State University School of Graduate Studies Research Fellowship Application 2014-2015 (FORM 2)

Name:Last	First	Middle	
Current Address:	Streat	City State	
Phone Number(s): ()	(Home)	City State	Σıh
()	(Cellular	or other)	
Email Address (es): 1		(SCSU email)	
2		(Other email)	
Academic Department:			
Degree or Program:			
Name of RF Faculty Mentor:			

Please type or print all the information.

Southern Connecticut State University

School of Graduate Studies

Applicant's Statement of Research (FORM 3)

Applicant's Printed Name:_____

Academic Department:_____

Instructions: The following is to be completed by the applicant in consultation with the faculty mentor. Using a maximum of five pages (single-spaced, single-sided, 11-point Times New Roman font), please describe the 1) research problem; 2) research design (methodology and IRB and/or IACUC clearances, if applicable); 3) research resources (e.g. laboratory access, equipment, libraries); 4) Expected outcomes; and 5) Plan to disseminate research results.

Attach your statement to this form.

The applicant and his/her research advisor must review the following statement and sign it below:

I, (Advisor's Name) ______, agree to serve as research advisor to the applicant named above. I agree to mentor the student in scholarly research of a quality that can be submitted to a refereed scholarly journal, to a refereed scholarly conference, or to a refereed creative activity appropriate to the professional discipline.

Applicant's Signature:	Date:
Applicant's Signature.	Date

Mentor's Signature: _____ Date: _____

Southern Connecticut State University School of Graduate Studies Faculty Mentor Recommendation (FORM 4)

Instructions: The applicant will give this form to his/her faculty mentor to complete. The faculty mentor will submit this form and his/her letter of recommendation directly to the School of Graduate Studies.

Applicant's Printed Name:_____

The faculty mentor must provide a letter of recommendation. Each of the following four items must be addressed in order under the appropriate side heading (*e.g.*, evaluation plan), within two typed (single-sided) pages using a minimum 11-point Times Roman font, single spaced.

- (1) Qualifications of the applicant, including academic performance
- (2) Evidence of applicant's ability to conduct research in a timely fashion
- (3) Applicant's proposed research activities
- (4) Evaluation plan to assess student's achievements

Please attach your letter of recommendation to this Form and submit it to School of Graduate Studies, Southern Connecticut State University, 501 Crescent Street, EN B 110, New Haven, Connecticut 06515.

Mentor's Printed Name:_____

Mentor's Signature: _____ Date: _____

Curriculum Vitae Instructions

Please include your current curriculum vitae (CV) in this application packet. Your CV must include the information listed below. Other information such as Volunteer Experience, Foreign Language, and Information Technology skills may also be included in the CV.

Education

List all post-secondary institutions attended in chronological order starting with the most recent. For each program, enter the beginning and end dates in the appropriate column. Cite the degrees obtained. If a degree was not conferred, enter a hyphen. Cite the cumulative GPA using two decimal points. GPAs must be cited in a manner that is consistent with the figures that appear on the attached transcripts. For example:

Institutions attended	Dates	Degree(s) received	Number of credits	Cum. GPA
1. State University of New York	2000-2004	B.A.	90	3.60
2. Central Connecticut State Univers	-	12	3.45	
3. University of South Florida	1995-1998	-	20	4.00

Work Experience

List all employers and job titles in chronological order starting with the most recent. For each job, enter the beginning and end dates.

Academic Honors, Awards, Publications, Exhibitions, Performances, etc.

List titles of any awards received during the course of your academic career. Include the dates and the awarding institution or agency. Please use a separate sheet if additional space is required. Do not include any other supporting materials, *e.g.*, copies of articles, photographs of awards, etc.
Southern Connecticut State University

School of Graduate Studies

Research Fellowship Scoring Rubric

2014-2015

In order to assist that applicant in preparing the application, below is the scoring rubric that will be used by the faculty reviewers as they assess your application:

All items are to be scored between 1 (high score) and 5 (low score). The summative score for all criteria will range from 1 (highest possible total rating) to 5 (lowest possible rating)

- 1. Overall clarity of the proposal. Does the student present a clear and concise explanation of the project, the intention of the project and the methods and appropriateness of the methods to be used in the research?
- 2. In your estimation given the nature of the proposal, rate the likelihood that the student will be able to complete the project in the time frame offered in the proposal.
- 3. Review the Applicant's personal statement and rate it on the clarity of the personal statement and the importance as stated by the applicant for pursing the research.
- 4. Review the Faculty Mentor's Letter of Support in terms of the strength of the recommendation and the plan for providing mentoring for the student.
- 5. Overall rating of the fellowship application. Taking all elements into consideration, rate the overall strength of the proposal.
- 6. Once you have rated each individual item between 1 (high) and 5 (low), sum your scores and divide by 5. Enter this score in the appropriate column on the spreadsheet.

18) GRADUATE STUDENT PARKING AND CAMPUS MAP

On the following pages are the locations of the various parking lots on campus and the available times for graduate student parking.

Also, a map of the Southern Connecticut State University campus is included.



Parking - Graduate Students

Cars regularly parked on campus must display a current SCSU parking permit. In order to obtain a student parking permit, present your schedule of classes to Campus Police, located at the rear of the Granoff Health Services Center located on Wintergreen Avenue. Visitors to campus must park in commuter lots 7-9.

LOT	LOCATION	RESTRICTIONS
1	Fitch Street Parking Garage	Available after 7:00 a.m.
2	Fitch St. (near Jennings)	Available after 4:30 p.m.
6	Near Neff Hall (on need basis)	Available after 4:30 p.m.
Main	Crescent Street	Available after 6:00 p.m.
Faculty &		
Staff		
7	Wintergreen (near Moore Fieldhouse)	Available anytime
8,9	Farnham Ave. (near Brownell Hall and	Available anytime
	Social Work Building)	
12	Crescent Street (near Earl Hall)	Available after 4:30 p.m.

Note: The University has a number of major construction projects scheduled for the next few years. To avoid unnecessary delays, please check with the University Police at 392-5375 for additional information.



19) ACADEMIC HONESTY

Cheating in any form will not be tolerated. Academic dishonesty is defined in the Student Handbook and other university publications and includes either giving or receiving information on homework assignments, class quizzes, hour examinations, plagiarism, etc.

Violations of the academic honesty policy are grounds for a failing grade and may result in dismissal from the School of Graduate Studies.

On the following pages are a definition of plagiarism and several examples of academic dishonesty. Ignorance is not an adequate defense for academic dishonesty. All students are responsible for understanding the types of activities that qualify as academic dishonesty.

Southern Connecticut State University Department of Chemistry Plagiarism Policy

The Chemistry Department at Southern Connecticut State University takes academic dishonesty and plagiarism very seriously. In an academic setting, plagiarism falls into the category of academic dishonesty. Plagiarism can be defined as the use of other's written material in its original, or nearly original, form without reference.

The Chemistry Department considers each of the following to be examples of plagiarism:

- 1. The copying of text from a source to your document verbatim with or without a reference.
- 2. The copying of text from a source to your document changing a few of the words or parts of the sentence structure with or without a reference.
- 3. The taking of material from a different source than the one you referenced.

In order to avoid plagiarism:

- 1. Paraphrase all material from the source that is being incorporated into your document and use proper citation. All paraphrased material must be properly referenced.
- 2. Any verbatim material taken from a source must be placed in quotation marks in your document and properly referenced.
- 3. Paraphrased material must come from the source referenced in your document.

In general, if you are copying from a source as you write your document, you are plagiarizing.

Definition and Examples of Academic Dishonesty

Academic dishonesty may be defined as engaging in acts that may subvert or compromise the integrity of the educational process. As such it includes a wide range of behaviors:

Plagiarism

- 1. Not copying word-for word, but changing the wording slightly from an original source while writing a paper.
- 2. Copying word-for-word from an original source in a paper without properly citing.
- 3. Copying another student's homework assignment
- 4. Copying from another student's examination paper with or without his/her knowledge
- 5. Copying from another student's data or results in a lab experiment
- 6. Copying another student's paper with or without his or her knowledge and submitting it
- 7. Submitting the same paper in multiple classes.

Aiding and Assisting

- 1. After completing an examination, sharing question and/or answers with another student who has yet to take the exam.
- 2. Not reporting witnessed instances of academic misconduct in others
- 3. Allowing another student to copy your homework assignment
- 4. Allowing another student to copy answers from you examination
- 5. Allowing another student to copy your data or results from an experiment
- 6. Providing false information in connection with an inquiry regarding academic integrity
- 7. Providing answers to another student during an examination by any means
- 8. Writing a paper or completing an assignment for another student
- 9. Taking an examination for another student

Cheating

- 1. Collaborating with other students on an assignment this is supposed to completed individually
- 2. Accepting answers or information about an examination from another student who has already completed the examination
- 3. Deliberately missing an examination so that you can have more time to prepare
- 4. Obtaining an unauthorized advanced copy of an examination (e.g. text messaging, friend who takes a picture of test questions using their cell phone)
- 5. Using unauthorized materials during an examination (e.g. storing information on a Palm Pilot or calculator)
- 6. Falsely reporting that a computer malfunctioned to get an extension
- 7. Writing in blue books prior to an examination
- 8. Obtaining a copy of the instructor's manual or test bank which may contain test items
- 9. Using a surrogate to write your papers or complete assignments
- 10. Having a surrogate take an examination for you
- 11. Obtaining a paper from a commercial service and submitting it as your own work

- 12. Offering a bribe in any form to an instructor or teaching assistant for a grade
- 13. Exchanging sexual favors for a grade
- 14. Accepting a gratuity in an official capacity for a grade

Fabrication

- 1. Padding a bibliography with references not used
- 2. Falsifying or inventing of any information, data, or citation
- 3. Presenting data that were not gathered in accordance with standard guidelines
- 4. Failure to include an accurate account of the methods by which data was collected and analyzed
- 5. Making up data that was not actually gathered through experimentation

Library Abuse

- 1. Removing reference materials necessary for a course
- 2. Mutilation or alteration of material

Tampering

- 1. Tampering with someone else's lab work or data
- 2. Altering or interfering with evaluation instruments and documents
- 3. Changing answers on an examination which has already been graded
- 4. Unauthorized use of university equipment

Computer Fraud

- 1. Using accounts other than one's own
- 2. Modifying, destroying, or copying others' accounts for files

Providing False Information

- 1. Altering documents affecting academic records
- 2. Forging signatures of authorization

20) **INDEPENDENT STUDY**

Matriculated graduate students (part time or full time) who have completed at least nine credits of graduate work with at least a 3.0 GPA may apply for an Independent Study.

On the following pages are the policies and guidelines for an Independent Study (CHE 600) and an application form.

Normally a student would first discuss an independent study project with a faculty member. Independent study projects involve material not normally covered in the published curriculum of the Chemistry Department. Once a project is chosen, the student fills out the form 'Application for Independent Study-Graduate' and obtains the signatures of the faculty member directing the project, the graduate program advisor and the department chair. The form is then sent to the Dean of the School of Arts and Sciences for approval. When approved, a section of CHE 600 is opened up and the student can then register.

Normally a student may not register for more than one Independent Study course (3 credits) during a Planned Program of Study. However, because of course cancellations and other problems students may encounter in completing their graduate program, graduate students may enroll in a second independent study with the approval of the graduate coordinator and the Graduate Dean .

SOUTHERN CONNECTICUT STATE UNIVERSITY SCHOOL OF GRADUATE STUDIES Application for Independent Study – Graduate

Check Appropriate Semester and Indicate Year					
Fall Spring	$ \widehat{\Box} Summer \Box A \Box B \Box C $	Year			

Dept. Prefix _____ 600 for _____ Credits Section _____

A graduate independent study course requires a graduate level scholarship that is at least equivalent to the work required in regular graduate courses offered by the sponsoring department. Only matriculated students who have completed a minimum of nine credits of graduate work and have attained at least a "B" (3.0) average are eligible for independent study. Each independent study course must be approved as an academically sound component of the student's planned program of study by the student's advisor, the Department Chairperson, and the Academic School Dean. A completed form must be presented to the Registrar's Office for scheduling before a student can register for independent study.

As a condition of approval, the Independent Study Advisor agrees to submit a student prepared, one page abstract of the independent study to the Registrar's Office upon completion of the study. The abstract is a requirement of the Graduate School and is independent of any grading or reporting requirements established by the Independent Study Advisor or the Department.

Student's Name:

Banner I.D.:

Department:

Independent Study Faculty Advisor's Name:

Credits Completed: As of Semester/Year:

Degree Program:

The following information is submitted to support my application for Independent Study.

A. Title of Study:

Application Received:

Bv:

- B. Justification for Independent Study format:
- C. Study Description: (Attach on separate sheet)

Signature

Date

Approvals				
Student's Signature	Date	Independent Study Advisor's Signature	Date	
Graduate Program Advisor's Signature	Date	Department Chairperson's Signature	Date	
		Academic School Dean's Signature	Date	
Re	cords Office	Documentation		

Put in Course Schedule:

Date

SOUTHERN CONNECTICUT STATE UNIVERSITY SCHOOL OF GRADUATE STUDIES Directed Independent Study Policies and Guidelines

I. INTRODUCTION

An independent study course provides an opportunity for students who wish to undertake a well defined research project. Independent Study courses are restricted to students of proven ability who have sufficient background in the subject to be able to work with intermittent faculty guidance. While students do perform their work under the guidance of a faculty member of their own choosing, they conduct the project in an independent manner without attending regular class meetings. Independent study is characterized by a reduction in formal instruction and an increase in the individual student's responsibility and initiative in the learning process. Approval of an independent study course by the independent study advisor, the department chairperson, and the academic school dean attests to the academic value of the study and to the advisor's professional evaluation that the student has the ability to master a body of knowledge with minimal faculty guidance.

II. POLICIES

1. The independent study option is available only to students accepted to a planned program of study by the Graduate School.

2. Students and faculty sponsors are jointly responsible for defining projects and for justifying them as independent study projects.

3. The graduate thesis may not be written in connection with an independent study course (3 credits).

4. A student may not apply more than one directed independent study course (3 credits) to a planned program.

5. A typed or neatly printed *Application for Independent Study* with all required signatures must be received by the Registrar's Office before work begins on the independent study.

6. The student's final report on the independent study project becomes part of the official files of the department in which the independent study has been accomplished.

7. An abstract of the independent study must be prepared by the student, signed by the faculty sponsor and submitted to the Registrar's Office upon completion of the independent study.

III. GUIDELINES

1. The student requests faculty sponsorship through the department chairperson or graduate program coordinator. Faculty are free to accept or reject student independent study proposals.

2. Student obtains Application for Independent Study form from the Graduate Office.

3. Student and faculty advisor jointly prepare documentation for form. (It will be necessary to attach a separate page or pages to describe the study.)

4. After required approval signatures have been obtained, the application is submitted to the Registrar's Office.

5. The student and the faculty advisor meet periodically throughout the semester as necessary to help assure proper and timely progress of study.

6. By the end of the semester, the student submits a complete final report to the faculty advisor.

7. The instructor/faculty advisor submits a letter grade to the Registrar's Office and the abstract of the independent study, with his/her signature.

IV. OTHER

Departments, programs, and academic school deans may develop additional guidelines that must be followed by all students taking an independent study through that department. Certain eligibility requirements also may be established.

21) GRADE CHANGE PROCEDURES

On the following pages are the Grade Change Procedures for Southern Connecticut State University including a Flow Chart for the Grade Appeals Procedure and Grade Appeal Procedures.

Southern Connecticut State University Grade Change Procedures

I. Assumptions

- A) The award of grades¹ is the responsibility of the instructor of the course.
- **B)** A grade shall be changed only with the consent of the instructor of the course and with the approval of the appropriate academic vice president or Dean except for cases which are specified in this document.
- **C)** These procedures apply only to the change of a grade under conditions specified in section 4.2.2.2 of the Collective Bargaining Agreement. They may be implemented after a final grade has been submitted or after a request for a late withdrawal has been denied by the instructor, and any change may be upward or downward.
- **D)** These procedures may be implemented at any time during the academic year subject to II A below.

II. Procedures

- A) Grade appeals must be initiated on an individual basis. A student must submit a written and signed rationale to the instructor (no electronic submissions permitted) stating the reason for the grade appeal by the 3rd week of the semester² (called hereinafter the appeal semester) following the date on which a grade was awarded. Grade appeals for work during summer, winter and spring break sessions must be made according to the schedule for the next full semester. See the section on deadlines below. The student and the instructor shall then attempt to settle the matter.
- **B)** If it is impossible for the student to contact the instructor (with the help of the instructor's chair if needed), or if the student and instructor cannot reach an agreement, the student must report this to the instructor's chair or the program director (in the case of courses in interdisciplinary programs) by the 5th week of the appeal semester.
- C) If the instructor can be contacted, and the student and instructor disagree, the following shall take place:
 - 1. The chair/director, the instructor and student shall attempt to settle the matter.
 - 2. If the student, chair/director and instructor, are unable to reach an agreement, then the chair/director has until the 7th week of the appeal semester to convene an committee elected³ by the department (hereinafter called the Grade Appeal Committee or GAC) which shall, in consultation with the instructor and student, decide the merits of the complaint. See II F below. THE DECISION OF THE GAC SHALL BE FINAL and the GAC must reach its decision by the 10th week of the appeal semester.
 - 3. If the chair/director decides not to convene a GAC, the student may appeal this decision to the appropriate dean, but must do so by the 9th week of the appeal semester. The dean shall then decide to leave the grade unchanged or convene a GAC, which shall be elected by the department, by the 10th week of the appeal semester. See II F below. The GAC convened under these circumstances must reach its decision by the 13th week of the appeal semester. THE DECISION OF THE GAC SHALL BE FINAL.
 - 4. If the dean decides not to convene a GAC, the student may appeal this decision to the Academic Vice President, but must do so by the 12th week of the appeal semester. The Academic Vice-President shall then decide to leave the grade unchanged or convene a GAC, which shall be elected by the department by the 13th week of the appeal semester. See II F-below. The GAC shall decide the merits of the appeal in consultation with the instructor and student. The GAC convened under these circumstances must reach its decision by the last day of the finals' week of the appeal semester. THE DECISION OF THE GAC SHALL BE FINAL.

- 5. The GAC shall make a decision with reference to the grade appeal following consultation with the instructor and student and with others whom it deems appropriate. The meetings of the GAC shall consist of GAC members, and others, only if invited by the GAC. A grade change may take place only when the committee decides that a palpable injustice has occurred. The GAC also makes certain that all procedures are followed at every stage of the grade appeal process. The GAC shall treat each student as a separate case, and provide a written rational for each decision. The committee's decision shall be recorded in a written document signed by the committee members. The student and instructor shall be notified in writing of the committee's decision. If a grade change has been made, the registrar shall also be notified in writing. THE DECISION OF THE GAC SHALL BE FINAL.
- **D)** If it is impossible to contact the instructor, the procedure in II C is followed omitting references to the instructor.
- E) Deadlines and deadline extensions.

"By the 3rd week" means 3 weeks (21 calendar days) into the semester, starting with the 1st day of classes. Other deadlines are to be interpreted similarly. For compelling reason(s) the dean of the appropriate school may extend any deadline.

F) Structure of the Grade Appeal Committee.

The GAC shall consist of three department or program members, excluding the instructor, the chair, nontenured faculty and those on leave. In cases of hardship (when not enough department/program members are available), the chair will follow the same procedures as those for convening a hardship DEC.

III. Amendments

A) This document may be amended by two-thirds vote of the Faculty Senate with the concurrence of the University President.

IV. Interpretation

- A) This section may not be invoked with respect to the interpretation of any item of the Collective Bargaining Agreement. If an issue develops concerning interpretation of this Document whether initiated by the Senate, a faculty member, or any member of the administration, a binding decision on such an issue shall be made:
 - 1. by agreement between the President of the University and a majority of the Executive Committee of the Faculty Senate or, failing to obtain agreement on an issue by this method,
 - 2. by a committee consisting of one member selected by the Senate Executive Committee, one selected by the President of the University, and one selected by the first two committee members, who, by a two-thirds vote shall decide such an issue.

V. Implementation

A) This document shall take effect upon approval by a two-thirds vote of the Faculty Senate with the concurrence of the President of the University.

Notes:

I. By grade is meant any of the grades specified in the University Undergraduate or Graduate Catalogs.

^{2.} Semester means the January to May or the September to December sessions of classes.

^{3.} The composition of this committee and its election procedures shall be determined by each department, subject to II F.

Flow chart for the GRADE APPEALS PROCEDURE

The ordinal numbers refer to the week of the semester immediately following the period in which the grade was given. Regarding deadlines, "by the 3rd" means 3 weeks (21 calendar days) into the semester, starting with the 1st day of classes.



Southern Connecticut State University Grade Appeal Procedures

I. Assumptions

- A) The award of grades¹ is the responsibility of the instructor of the course.
- **B)** A grade shall be changed only with the consent of the instructor of the course and with the approval of the provost or appropriate Dean except for cases which are specified in this document.
- C) In order to protect academic freedom, promote academic integrity, and to avoid possible negative implications for faculty evaluations, all grade appeals must be based on a claim of palpable injustice. A palpable injustice occurs when a faculty member has been demonstrably inconsistent and unfair to the student. Palpable injustice represents a clear and blatant violation of a reasonable evaluation procedure, regardless of whether that procedure is stated or implied. Palpable injustice is NOT warranted when other faculty members simply disagree with the grade, would have graded differently, would have rounded off to the next highest grade, or would have preferred a different evaluation procedure. For example, the Department Grade Appeal Committee or University Grade Appeal Committee is not justified in changing a WF to a WP by considering the circumstances for the withdrawal. The issue is whether the faculty member applied the policy appropriately.
- **D)** These procedures apply only to the change of a grade under conditions specified in section 4.2.2.2 of the Collective Bargaining Agreement. They may be implemented after a final grade has been submitted or after a request for a late withdrawal has been denied by the instructor, and any change may be upward or downward.
- E) These procedures may be implemented at any time during the academic year subject to II A below.
- F) The week of Spring Break shall not be counted when determining how long the grade appeal has been in process.

II. Procedures

- A) Grade appeals must be initiated on an individual basis. A student must submit a written and signed rationale to the instructor (no electronic submissions permitted) stating the reason for the grade appeal and the grade s/he feels should have received anytime after receipt of the grade until the end of 3rd week of the semester² (called hereinafter the appeal semester) following the date on which a grade was awarded. Grade appeals for work during summer, winter and spring break sessions must be made according to the schedule for the next full semester. See the section on deadlines below. The student and the instructor shall then attempt to settle the matter in good faith.
- **B)** If it is impossible for the student to contact the instructor (with the help of the instructor's chair if needed), or if the student and instructor cannot reach an agreement, the student must report this to the instructor's chair or the program director (in the case of courses in interdisciplinary programs) by the end of the 5th week of the appeal semester.
- C) If the instructor can be contacted, and the student and instructor disagree, the following shall take place:
 - 1. Working in good faith, the chair/director, the instructor, and student shall attempt to settle the matter.
 - 2. If the student, the chair/director and instructor are unable to reach an agreement, then the chair/director has until the end of the 7th week of the appeal semester to do one of the following:

- A. Convene a committee elected³ by the department (hereinafter called the Department Grade Appeal Committee or DGAC) which shall, in consultation with the instructor and student, decide whether a palpable injustice has occurred.. The DGAC must reach its decision by the 10th week of the appeal semester, or the appeal goes directly to the University Grade Appeal Committee UGAC. The student or the faculty member has the right of appeal to the (UGAC). In such instances, the UGAC must reach its decision by the last day of the finals' week of the appeal semester.
- B. Refer the matter to the UGAC, which shall, in consultation with the instructor and student, decide whether a palpable injustice has occurred.
- C. Decide not to convene a DGAC or to refer the matter to the UGAC, only if the chair/director determines that the grade appeal has no merit.
- 3. If the chair/director decides not to convene a DGAC nor refer the matter to the UGAC, the student may refer the matter to the UGAC, but must do so by the end of the 9th week of the appeal semester.
- 4. The DGAC or the UGAC shall make a decision with reference to the grade appeal following consultation with the instructor and student and with others whom it deems appropriate. The meetings of the DGAC or UGAC shall consist of the respective committee members, and others, only if invited by the DGAC or the UGAC. A grade change may take place when the DGAC or the UGAC decides that a palpable injustice has occurred, and the new grade will be based on the evidence presented. The DGAC or the UGAC shall treat each student as a separate case. The DGAC's or UGAC's decision shall include a written rationale for each decision signed by the committee members. The student, the instructor, the department chair/director, and the chair of the DGAC (when applicable) shall be notified in writing of the committee's decision. If a grade change has been made, the registrar shall also be notified in writing. THE DECISION OF THE DGAC CAN BE APPEALED TO THE UGAC BY EITHER STUDENT COMPLAINANT OR AFFECTED FACULTY MEMBER, AND THE DECISION OF THE UGAC SHALL BE FINAL.
- 5. If a student or instructor appeals a DGAC decision, the appellant takes the matter directly to the UGAC by the end of the 12th week of the appeal semester. The UGAC will entertain an appeal on the basis of a palpable injustice that should or should not have been determined by the DGAG, or if the student, instructor, chair/director, or DGAC did not follow correct procedure. THE DECISION OF THE UGAC SHALL BE FINAL.
- **D)** If it is impossible to contact the instructor, or the instructor refuses to participate, the procedure in II C is followed without the presence or involvement of the instructor.
- E) Deadlines and deadline extensions.
 - 1. "By the 3rd week" means 3 weeks (21 calendar days) into the semester, starting with the 1st day of classes. Other deadlines are to be interpreted similarly.
 - 2. A dean of the appropriate school may extend any grade appeal deadline only at the appellant's request and only if the appellant provides written evidence that physical or mental incapacitation led to the missed deadline. The request must be made, in writing, no later than the end of the first week of classes following the original grade appeal semester.
- F) Structure of the Department Grade Appeal Committee.

The DGAC shall consist of three department or program members, excluding the instructor, the chair, non-tenured faculty and those on leave. In cases of hardship (when not enough department/program members are available), the chair will follow the same procedures as those for convening a hardship DEC.

G) Structure of the University Grade Appeal Committee

The UGAC shall consist of seven members, including six university-wide elected members who serve a term of three year each, plus one member of the affected department/program, and one university wide elected alternate who fills in as needed. Two elected members will be from the school of Arts and Sciences; the other four Schools shall have one member each. No more than one elected member per department is permitted. Any grade appeal decision shall not be made by fewer than three UGAC members. The instructor whose grade is being appealed cannot serve on UGAC for that appeal.

III. Amendments

This document may be amended by two-thirds vote of the Faculty Senate with the concurrence of the University President.

IV. Interpretation

This section may not be invoked with respect to the interpretation of any item of the Collective Bargaining Agreement. If an issue develops concerning interpretation of this Document whether initiated by the Senate, a faculty member, or any member of the administration, a binding decision on such an issue shall be made:

- 1. by agreement between the President of the University and a majority of the Executive Committee of the Faculty Senate or, failing to obtain agreement on an issue by this method,
- 2. by a committee consisting of one member selected by the Senate Executive Committee, one selected by the President of the University, and one selected by the first two committee members, who, by a two-thirds vote shall decide such an issue.

V. Implementation

This document shall take effect upon approval by a two-thirds vote of the Faculty Senate with the concurrence of the President of the University.

Notes:

Revised 2008

I. By grade is meant any of the grades specified in the University Undergraduate or Graduate Catalogs.

^{2.} Semester means the January to May or the September to December sessions of classes.

^{3.} The composition of this committee and its election procedures shall be determined by each department, subject to ll F.