UNC GLOBAL

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

COLLEGE OF ARTS & SCIENCES

STUDY ABROAD OFFICE

FedEx GLOBAL EDUCATION CENTER
CAMPUS BOX 3130
CHAPEL HILL, NC 27599-3130

T 919.962-7002
F 919.962-2262
studyabroad.unc.edu

January 7, 2013

Administrative Board of the College of Arts and Sciences
Office of General Education
UNC-CH

Dear Colleagues,

UNC-Chapel Hill Summer Science program in Grenoble

The Department of Chemistry and the Study Abroad Office are seeking your approval for a UNC-CH Summer Science program in Grenoble. This program is a joint collaboration between the Joseph Fourier University (UJF) in Grenoble and UNC-CH. University Joseph Fourier currently offers a summer program with courses taught in English and wishes to add a biochemistry course offered by UNC-CH (CHEM 430) to the present curriculum.

More information on the current summer program can be found here:

http://www.ujf-grenoble.fr/international/bachelor-summer-program

Rationale

This program would extend the collaboration between these two universities under the MOU with the University of Grenoble. There is already a semester and year-long exchange in place and 4 UNC-CH students are spending the spring 2013 semester studying at UJF in Grenoble. This program contributes to our objective of offering more programs to sciences students and we believe UNC-CH students would benefit from taking such a course in an international setting where they will be mingling with other French and international students.

Description

The UNC-CH Summer Science in Grenoble program is a six-week science and French language program. Students will take the UNC faculty taught biochemistry course as well as a French language course. Currently two other science courses (Engineering: Introduction of Physical Computing and Physics: Introduction to Large Scale Facilities) are taught by University Joseph Fourier (UJF) professors. These courses are taught in English and are open to regular UJF students as well as international students. The tentative 2014 dates are June 2-July 15. The UNC-CH course would be open to other NC system students,

and also to a small number of UJF students.

Courses and Faculty

All UNC-CH students will be registered for CHEM 430 *Introduction to Biological Chemistry* (3 credits) taught in English by a UNC-system faculty member. This course is cross listed in both Chemistry and Biology and part of the required curriculum for Biology and Chemistry students. Students will also take a French language course (3 credits) at the appropriate level based on a language test taken on arrival. Students with no prior French language will take the Elementary French course.

Academic Requirements and Credit

UNC students participating in this program will need to have a 2.7 GPA to be eligible and have completed their first year in order to apply for the program. There will be no language requirement. The UNC taught biochemistry course will be graded credit and thus the student's GPA will be affected. The French language course will be TREQ credit and the student will need a grade of C in order for credit to transfer; there will be no effect on the student's GPA. The prerequisites are BIOL 101, CHEM 261 and CHEM 262. Students will receive 6 UNC credits in total.

An example of a course syllabus and faculty CV are attached in Appendices. This syllabus is for a semester course and is provided to give an overview of the course content.

Logistics, Health and Safety

Facilities

This program will be offered on the campus of UJF, at the University of Grenoble, which is located on the outskirts of the city. It is easily reached by public transportation (both bus and tram) and students are often seen biking to campus.

Housing

Students will reside in a university residence arranged by UJF's international office.

Other activities

Summer is a wonderful time to be in Grenoble; there are planned cultural excursions, plenty of festivals as well as opportunities to go hiking in the Alps.

Health and Safety

In France, health coverage is mandatory. Students are covered by UNC-Chapel Hill's insurance company – HTH. The University has an Inter-University Health Center which gives access to many free services including reception services, consultations and preventive medicine in the areas of general medicine, nursing care, gynecology, psychology, diet and nutrition, tobacco addiction, disabilities, etc.
The U.S. Department of State considers France as a developed and stable democracy with a modern economy. Tourist facilities are widely available. Information is routinely shared between the United States and France in order to disrupt terrorist plotting, identify and take action against potential operatives, and

strengthen our defenses against potential threats.

Conclusion

We hope this proposal has given a clear representation of the Summer Science program in Grenoble. We are enthusiastic about the opportunity this will give UNC-Chapel Hill science students to participate on a program where they will be able to receive credit for a required course in an international setting. We are happy to provide you with any additional information you might need to aid in your evaluations of this proposal.

Sincerely,

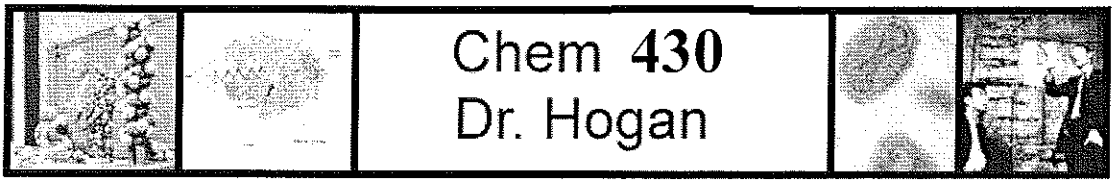
Valerie S. Ashby January 15, 2013

Dr. Valerie Ashby, Professor and Chair, Department of Chemistry Date

15.1.13

Dr. Robert Miles, Associate Dean: Study Abroad and International Exchanges Date

Appendices: Course syllabus and Faculty CV



Chem. 430 Introduction to Biological Chemistry

Fall 2011
CP 201
T,R 8:00 am

Prerequisites:
Consult undergraduate bulletin

Instructor:
Brian P. Hogan, Ph.D.
Office: Morehead Labs rm. 205
Email: hoganb@email.unc.edu ****note: email is the best way to contact me****
Phone: 962.4746

Office hours:
TBA

Official Text: Principles of biochemistry, Lehninger, Nelson, Cox, Custom ed. (5th ed).

Online course access: I will be posting "skeleton notes" and powerpoint slides using blackboard.com this semester. You can access this site by visiting "blackboard.unc.edu" and logging in with your ONYEN. If you are not a UNC student you will need to see me to make arrangements to get access to this site. Please check this site daily.

Evaluation: Dates are subject to change at instructor's discretion.

Exam 1	TBA	(30%) *
Exam 2	TBA	(30%) *
Exam 3	TBA	(30%) *
Final Exam	See Registrar's schedule	(40%)

***Your grade:** All students must take the cumulative final exam. The final exam score will count towards 40% of your final grade. I will drop your lowest grade for Exam 1, 2, or 3, and the remaining two scores will each account for 30% of final grade. If you miss a semester exam for any reason, I will drop that score and automatically use the remaining two in the final grade calculation. Hence, there will be no early or make-up exams. *You need to pass the final with a grade of 55% or higher to pass chem 430.*

Permanent grades are defined as follows (from undergraduate course bulletin):

A: Mastery of course content at the highest level of attainment that can reasonably be expected of students

at a given stage of development. The A grade states clearly that the student has shown such outstanding promise in the aspect of the discipline under study that he/she may be strongly encouraged to continue.

B: Strong performance demonstrating a high level of attainment for a student at a given stage of development. The B grade states that the student has shown solid promise in the aspect of the discipline under study.

C: A totally acceptable performance demonstrating an adequate level of attainment for a student at a given stage of development. The C grade states that while not yet showing any unusual promise, the student may continue to study in the discipline with reasonable hope of intellectual development.

D: A marginal performance in the required exercises demonstrating a minimal passing level of attainment for a student at a given stage of development. The D grade states that the student has given no evidence of prospective growth in the discipline; an accumulation of D grades should be taken to mean that the student would be well advised not to continue in the academic field.

F For whatever reasons, an unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content. A grade of F should warrant questioning whether the student may suitably register for further study in the discipline before remedial work is undertaken.

• Responsibilities of Students and Teachers. Just as students ought to expect instructors who are knowledgeable and well prepared, ***so should teachers expect their students to be motivated, eager to learn, and actively engaged in class. It is the responsibility of teachers to make their courses serious intellectual experiences for themselves and for their students. It is the responsibility of students to take seriously the courses in which they enroll. Good teachers need good learners***.

Students should understand that they are members of a community of scholars, and membership in such a community is not a passive activity. To be full participants in the educational community and to maximize the educational value of a class, preclass preparation is necessary. Proper class preparation involves obtaining course materials as they are needed and completing assignments as they are due. Full participation in a class requires regular attendance, arriving on time and remaining until class conclusion, and active involvement in the work of the class.

Students should also consider the extent of their own involvement in a class in assessing the educational value of a class.

Important dates to remember:

Visit the registrar's website for a complete list of important dates (i.e. drop/add deadlines, final exam schedules, etc). registrar.unc.edu → calendars → exam schedule.

Policy adopted by the faculty of the Department of Chemistry on September 9, 1977:

"Since all graded work (including homework to be collected, quizzes, papers, mid-term examinations, final examinations, research proposals, laboratory results and reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of collaboration is allowed. This statement is not intended to discourage students from studying together or working together on assignments which are not to be collected."

Chem 430 Topics: ***note: if you are using the 4th edition, consult one of my old syllabi for topics and chapters (online at: www.chem.unc.edu)

TOPIC

Biochem. Intro/ Water

Amino Acids/Peptide bond
Protein Architecture
Protein purification
Structure/function of proteins
Enzymes: catalysis and kinetics
Carbohydrates
Lipids and membranes
Metabolism – Glycolysis
Glycogen metabolism
TCA cycle
Oxidative Phosphorylation
Nucleic Acids
DNA replication
Transcription and Translation

Note: *We will cover these topics in a much detail as possible. Be aware that I expect you to read the sections/chapters in your text that correspond to the material we cover in class. You will be held responsible for this material.*

Brian P. Hogan, PhD
Assistant Professor of Chemistry
Academic Director, Scholars' Latino Initiative, UNC Center for Global Education
University of North Carolina
Department of Chemistry
Chapel Hill, NC 27599-3290
Telephone: (919) 962-4746
E-mail: hoganb@email.unc.edu

Educational Background:

Ph.D., Chemistry
University of North Carolina (Chapel Hill, NC) 1999-2003
Department of Chemistry
Program in Biological Chemistry
Doctoral Advisor: Dr. Dorothy A. Erie

Trenton State College
currently *The College of New Jersey (Ewing, NJ)* 1992-1996
Bachelor of Science, Biology
Minor: Chemistry
Magna cum laude

Humanitarian work and organizations:

- Academic Director, Scholars' Latino Initiative, UNC Center for Global Education
- Elected to the *Guatemalan Student Support Group*, Board of Directors. Educational consultant for 27 students in USA and 2 in Guatemala.
- Education consultant to *From Houses to Homes* (Guatemala). Consult in areas related to elementary education for the two new schools being built.
- Fouder, *Bantiox.org*, Dedicated to increasing literacy in Izabal.

Research Experience:

Postdoctoral Research: Expression, purification, and crystallization of the five human RecQ helicases (BLM, WRN, RecQ1, RecQ4, and RecQ5) and *Drosophila melanogaster* dmRecQ5. Mentor: Dr. Matthew R. Redinbo, University of North Carolina (Department of Chemistry, Department of Biochemistry and Biophysics), Chapel Hill, NC

Doctoral Research: Transcript cleavage by *Thermus thermophilus* RNA polymerase. Effects of GreA and anti-GreA factors. Advisor: Dr. Dorothy A. Erie, University of North Carolina (Department of Chemistry), Chapel Hill, NC. Total number of pages:167.

Professional Experience:

Research Assistant. Iconix Pharmaceuticals, *Surrogate Genetics-Genomics* division. Corporate headquarters: 850 Maude Ave., Mountain View, CA 94043.

Research Assistant. Waksman Institute of Microbiology, Rutgers University (Advisor: Dr. Andrew K. Vershon). Transcription Regulation in eukaryotes.

Undergraduate Research: Howard Hughes Undergraduate Fellow, Waksman Institute of Microbiology, Rutgers University. Novel factors influencing meiosis in *Saccharomyces cerevisiae* (Advisor: Dr. Lenore Neigeborn).

Honors/Awards:

- **Chapman Distinguished Teaching Fellow Spring 2011**
- **Tanner Teaching award for Excellence in Education (UNC 2010)**
- **UNC Academy of Distinguished Teaching Scholars (inducted 4/1/2002)**
- **Tanner Teaching Award for excellence in undergraduate education (UNC 2002)**
- **Recipient of Morehead-Cain Honors course development award for Honors 30, *Society, ethics, and biotechnology*, UNC Honors program (Fall 2005)**
- United States Department of Education GAANN (Graduate Assistantships in Areas of National Need) teaching fellow (2001/2002)
- Graduate Teaching Award (UNC Department of Chemistry 2000/2001)
- Howard Hughes Undergraduate Research fellow (1994)

Published Manuscripts (peer reviewed):

•Lamour V, Hogan BP, Erie DA, Darst SA., Crystal structure of *Thermus aquaticus* Gfh1, a Gre-factor paralog that inhibits rather than stimulates transcript cleavage.
J Mol Biol. 2006 Feb 10;356(1):179-88. Epub 2005 Nov 17.
•Hogan, B. P, Hartsch, T., Erie, D.A.. Transcript cleavage by *Thermus thermophilus* RNA polymerase. Effects of GreA and anti-GreA factors. J Biol Chem. 2002 Jan 11;277(2):967-75.
•Xue, Y., Hogan, B.P., Erie, D.A. Purification and initial characterization of RNA polymerase from *Thermus thermophilus* strain HB8. Biochemistry. 2000 Nov 21;39(46):14356-62.
Justice, M.C., Hogan, B.P., Vershon, A.K. Homeodomain-DNA interactions of the Pho2 protein are promoter-dependent. Nucleic Acids Res. 1997 Dec 1;25(23):4730-9.

Presentations:

•Transcript cleavage by *T. thermophilus* RNAP: effects of GreA and anti-GreA factors. UNC department of chemistry. Biological chemistry seminar series, January 16th, 2002.
•Poster: Factors Influencing RNA transcript cleavage activity of *T. thermophilus* RNA Polymerase. 2001 FASEB summer research conference, Saxtons River, VT.
•Identification and preliminary characterization of a GreA-like transcription factor in *Thermus thermophilus*. Tenth Biennial Meeting on the Post-Initiation Activities of RNA Polymerase. Mountain Lake, VA, October 28, 2000.

Invited seminars:

•*Effective techniques for studying chemistry*. UNC Carolina Covenant at the request of Deans Harold Woodard and the Learning Center. Fall 2007, Fall 2008
•*Graduate studies in biochemistry*. Rutgers University, April 2007.
•*Graduate studies in biochemistry*. The College of New Jersey, April 2007
•*Effective TA instruction:* Center for Teaching and Learning, UNC, Chapel Hill, 2006-2007
•*Effective instructional techniques for summer teaching.* GAANN lecture series. Department of Chemistry, UNC Chapel Hill, 2002
•*Life after B.S.: My time in graduate school studying thermostable proteins*. Chemistry Seminar Series at The College of New Jersey, Ewing, New Jersey (2001).
•Preparing Future Faculty Panel Discussion Part 3: *Getting the Job: What to Expect from a Job Offer and How to Negotiate a Start-up Package*, Monday, November 15, 2004, UNC postdoctoral association.
•Keynote address, AXE, Spring 2004: A life in research science.

•UNC Students' Health Science Club. *Smallpox: ancient scourge meets modern biotechnology* (9/27/2004)

Campus wide contributions:

•TASSEP (Trans Atlantic Science Student Exchange Program) North American co-director (along with Dr. Tom Baer): recruit and advise UNC science majors to spend one academic year abroad.
•Summer reading program instructor 2004-2008. Moderated discussions for 1st year students.
•Faculty sponsor WXYC radio 2005-present.
•Faculty co-sponsor of Global Medical Brigade (GMB). Students travel to Honduras to help with basic medical aid. Help manage logistics and oversee spending.
•Carolina Scholars mentor, 2008-present
•UNC admissions consultant 2007-present: read >200 applications to help determine Pogue, Morehead, and Carolina Scholars.
•Carolina Scholars interviews 2007-2009: directed hour long interviews with potential Carolina scholars.
•Carolina covenant: study skills in chemistry: getting the most out of your education in the physical sciences. 2007-present.
•NC biotech center educational enhancement grants advisory board. 2005-present. Helped determine the apportionment of >$250,000/year to K-12 and community college and university programs designed to promote biotechnology in the state of NC.
•UNC Admissions, 2008: helped draft essay questions for incoming applicant for the 2008-2009 academic year.

UNC Courses Taught 2004-2009 as Research Assistant Professor:

•Chemistry 430 (formerly 130) *Introduction to biological chemistry*: Fall 2004, Spring 2005, SSI 2005, Fall 2005, Spring 2006, SSI 2006, Fall 2006, Spring 2007, Spring 2008, SSI 2008, Spring 2009
•Chemistry 530L (formerly 136L/131L) *Lab Techniques in Molecular Biology and Biochemistry*: Fall 2004, Spring 2005, Fall 2005, Spring 2006, Fall 2006, Spring 2007, Fall 2007, Spring 2008, Fall 2008, Spring 2009
•Chemistry 262L: SSII 2004, 2005, 2006, 2007, 2008
•Chemistry 102 *General Descriptive Chemistry II*: Fall 2008
•Chemistry 101 *General Descriptive Chemistry I*: Fall 2007
•Honors 30 *Society, ethics, and biotechnology,* UNC Honors program Fall 2005
•Biology 202 (formerly biology 50) *Genetics and Molecular Biology*: SSI 2005, 2006, 2007, 2008