

DRAFT FORMAT FOR C/MS INTEGRATED PLANS

College/MS: Harriot College/Department of Chemistry
Integrated Plan for 2007-08, 2008-09, and 2009-10

Vision Statement:

The Department of Chemistry educates leaders of the future in chemical and biochemical sciences, medicine, nursing and allied health sciences, and engineering; the Department contributes to the knowledge base through research at the frontier of the field.

Mission Statement:

Pursuant to the purposes and philosophy of East Carolina University, the Department of Chemistry pledges (1) to encourage in the broadest and most liberal manner the advancement of science and, particularly chemistry, in all of its branches; (2) to promote research in chemical science by both faculty and students; (3) to encourage high qualifications of chemists through elevated standards of professional ethics; (4) to serve other disciplines and departments in a cooperative manner by disseminating chemical knowledge; (5) to promote scientific interest and inquiry through meetings, professional contacts, reports, papers, discussions, and publications, thereby fostering public welfare and education, aiding the development of the state's industries, and adding to the material prosperity and the betterment of its people.

Introduction:

The Department of Chemistry will continue to strive to impact the lives of our future leaders and researchers. A chief strategic goal is to increase participation in interdisciplinary research projects and programs. Reaching this goal will be marked by the establishment of a new interdisciplinary center of excellence, the hiring of faculty with complementary interests at the interface of biology and chemistry, and the development of cross-disciplinary degree programs. Another primary goal is to continue to provide the best access to modern laboratory training and science education possible. Ongoing markers of our success include continued growth in enrollment, excellent job placement of graduates, increasing research productivity, and servicing the needs of the population of the region.

Strategic Goals:

1. Increase participation in the Interdisciplinary PhD in Biosciences, and expansion of the MS program (with the ultimate goal of starting a standalone PhD program when the infrastructure and research productivity merit such a move). Expand collaborations with Brody School of Medicine faculty and the Biology and Physics Departments in the Harriot College of Arts and Sciences. This initiative contributes to economic development by supporting ongoing expansion of local and regional chemical companies and increases the access of our graduates to top programs in

chemistry. It also will help build research infrastructure and will lead to the development of an interdisciplinary center including faculty from BSOM and the Departments of Biology and Physics. The resources needed include additional TA and RA lines in the short term, and swift upfit of lab space and competitive startup packages for our newly hired faculty. Continued development of the university infrastructure for support of research also is critical, which requires the hire and training of additional SPA employees proficient in grants budgeting and accounting who can act as effective liaisons to the Office of Sponsored Programs. We will continue to hire in areas that support biotechnology development and research and foster NCBC collaboration. Potential targets include an X-Ray Crystallographer and/or a cohort of researchers with complementary interests. The Chemistry department already is participating in the disaster recovery database initiative that is part of the RENCI@ECU project.

These initiatives should lead to expanded graduate enrollments. We intend to utilize three year research plans to help mentor faculty and increase external funding levels. Evaluation of the success of these initiatives will be through following increases in funding and publication levels. These initiatives are targeted at the strategic areas of **21st Century Education, a Region's Prosperity, and a Region's Health.**

2. Continue to fine tune our course offerings to maximize the success of our non-chemistry majors (premedical, pre dental, prepharmacy, nursing and engineering programs) in their chosen programs by utilizing strategies such as recitation sections targeted at addressing specific issues. We currently also carry out student training in Good Manufacturing and Laboratory Practices, with GMP/GLP laboratory access for undergraduates and graduate students through a partnership with Metrics, Inc. This already leads to enhanced job prospects for graduates. We are exploring developing a joint degree program with the School of Business (Chemistry bachelors degree/MBA). Such cross-training in science and business will be enhanced by the establishment of internships with local scientific companies. Improved access to jobs in the business world for graduates of the program will likely follow. These initiatives will require additional TA lines to support recitation sections, and potentially another SPA position to support the administrative needs of the department. We anticipate that these initiatives will continue to expand undergraduate enrollments, necessitating future faculty expansion. Evaluation of the success of these initiatives will be through following retention rates and continued feedback from other departments and the BSOM, and following the job placements of our graduates. These initiatives are targeted at the strategic areas of **21st Century Education, a Region's Prosperity, and a Region's Health.**
3. We will continue to participate in University projects such as MATHTEC and Summer Ventures. Chemistry faculty participate in the Summer Ventures in Science and Mathematics program to involve top NC high school students in a variety of projects. Our undergraduate TA program (UTA) will continue to provide our undergraduates access to leadership and management opportunities. Carefully trained undergraduates learn how to teach science, manage classes, and gain valuable

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leadership experience. We are meeting the resource needs of these programs within the department, HCAS, and with external funds (Metrics, Inc. has supported the UTA program), and will continue to seek appropriate funding from all sources (both internal and external). We anticipate that these initiatives will continue to expand undergraduate enrollments. Evaluation of these initiatives will be following increased enrollment from local and regional HS and the job placement and/or graduate program matriculation of these graduates. These initiatives are targeted at the strategic areas of **21st Century Education** and **the Leadership University**.

21st Century Education

Chemistry Department Initiative	Priority Addressed <ul style="list-style-type: none"> • Access • Economic Development • Partnerships/Engagement 	Timeline	Resource Needs	Evaluation/Assessment
Increase participation in IDPBS, and expansion of the MS program	This initiative contributes to economic development by supporting ongoing expansion of local and regional chemical companies and increases the access of our graduates to top programs in chemistry.	Ongoing	Additional TA/RA lines, continuing development of research infrastructure	Tracking of grant funds and published papers
Support of premedical, pre dental, prepharm, nursing and engineering programs	We will continue to fine tune our course offerings to maximize the success of our non-chemistry majors in their chosen programs by utilizing strategies such as recitation sections targeted at addressing specific issues.	Ongoing	Additional TA lines to support recitation sections	Retention rates and feedback from other departments
Develop standalone PhD program	Access of students to research programs and promote economic development	2012	Additional TA/RA lines, continuing development of infrastructure	Tracking of grant funds and published papers
Summer Programs for HS students or current/future teachers	Participate in University projects such as MATHTEC and Summer Ventures. Chemistry faculty participate in the Summer Ventures in Science and Mathematics program to involve top NC high school students in a variety of projects.	Ongoing	Met or will need to be met with support from appropriate agencies	Increased enrollment from local and regional HS
Hiring in support of Bio-initiative	Continue to hire in areas that support biotechnology development and research, NCBC collaboration. Potential targets include an X-Ray Crystallographer and/or a cohort of researchers with complementary interests.	Ongoing	Upfit of lab space and competitive startup packages	Tracking of grant funds and published papers

A Region's Health

Chemistry Department Initiative	Priority Addressed <ul style="list-style-type: none"> • Access • Economic Development • Partnerships/Engagement 	Timeline	Resource Needs	Evaluation/Assessment
Support of premedical, predoctoral, prepharm, nursing and allied health programs	Access to health care for Eastern NC	Ongoing	Additional TA positions	Retention rates and feedback from other departments and BSOM
Expanding collaborations with BSOM and the Biology and Physics Depts. in HCAS	Promote economic development and partnerships with local industry by building research infrastructure and developing an interdisciplinary center including faculty from BSOM and the Departments of Biology and Physics. Participation in the disaster recovery database initiative that is part of the RENCI@ECU project. Continue to hire in areas that support biotechnology development and research, NCBC collaboration.	Ongoing/2010	Upfit of lab space and competitive startup packages, and other needs met by department	Tracking of collaborations via 3-year research plans, grant funds and published papers

A Region's Arts

Chemistry	Priority Addressed <ul style="list-style-type: none"> • Access • Economic Development • Partnerships/Engagement 	Timeline	Resource Needs	Evaluation/Assessment
N/A	N/A	N/A	N/A	N/A

A Region's Prosperity

Chemistry Department Initiative	Priority Addressed <ul style="list-style-type: none"> • Access • Economic Development • Partnerships/Engagement 	Timeline	Resource Needs	Evaluation/Assessment
Student training in Good Manufacturing and Laboratory Practices	GMP/GLP laboratory access for undergraduates and graduate students through partnership with Metrics, Inc. Already leads to enhanced job prospects for graduates.	Ongoing	Met with external funding	Job placement of graduates
Develop Chemistry BA with School of Business MBA degree program	Provide access for our chemistry students to jobs in business world. Partner with local businesses for internship opportunities for students.	Ongoing/2012	Distance education curricula development	Job placement of graduates
Hiring in support of Bio-initiative	Continue to hire in areas that support biotechnology development and research, NCBC collaboration. Potential targets include an X-Ray Crystallographer and/or a cohort of researchers with complementary interests.	Ongoing	Upfit of lab space and competitive startup packages	Tracking of grant funds and published papers

The Leadership University

Chemistry Department Initiative	Priority Addressed <ul style="list-style-type: none"> • Access • Economic Development • Partnerships/Engagement 	Timeline	Resource Needs	Evaluation/Assessment
Undergraduate TA program	Provide undergraduates access to leadership and management opportunities. Carefully trained undergraduates learn how to teach science, manage classes, and gain valuable experience.	Ongoing	Additional UTA lines, and other needs met by dept., HCAS, and Metrics, Inc.	Job placement of graduates
Summer Programs for HS students or current/future teachers	Participate in University projects such as MATHTEC and Summer Ventures. Chemistry faculty participate in the Summer Ventures in Science and Mathematics program to involve top NC high school students in a variety of projects.	Ongoing	Met or will need to be met with support from appropriate agencies	Increased enrollment from local and regional HS