# Annual Report Executive Summary, 2006-07
## Department of Chemistry

| Learning: Undergraduate |
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| The Virginia Tech Department of Chemistry provides a quality educational experience to our undergraduates while carrying one of the highest WSCH/faculty loads in the university. We provide a solid foundation in chemistry connected to current world problems both to science and non-science majors. Undergraduate research both for credit and for summer experiences is fostered by the department. The chemistry majors are provided with a well-rounded experience that includes research experiences and the honing of both written and oral communication skills. The department supports student scholarships both through its foundation accounts ($36,400) and through education components of sponsored programs. The latest technology is woven into the undergraduate learning experience. |
| **Learning: Graduate** |
| Chemistry awards both M.S. and Ph.D. degrees with the emphasis on the Ph.D. degree. A total of 116 graduate students were enrolled in the chemistry graduate program with participation by additional students from the MACRO interdisciplinary degree program. During the academic year, due to the need for support for the department's undergraduate teaching load, most of those students (72) are funded as GTAs. During the summer, the numbers are reversed with 82 of the total being funded on GRAs. IGERT grants and other innovative approaches to graduate education provide chemistry graduate students with a high-quality graduate experience that prepares them well for academic, industrial or independent careers. |
| **Discovery** |
| The chemistry department leads the College of Science in sponsored awards while having one of the highest WSCH/faculty loads in the university. In NSF rankings, the department consistently ranks between #30 and #40, with a 2003 ranking of 28. The 2005 ranking (the latest available) is 38. The department had a proposal funding success rate in 2006 of 64% for total awards of $7,262,138. For the first three quarters of 2007, the department had a proposal funding success rate of 67% for total awards of $4,538,118. The department is highly prolific in publications in refereed journals, in presentations at national or international meetings and is highly cited. |
| **Engagement** |
| The chemistry department is highly engaged and is very active in transferring knowledge to the private and public sector. A majority of chemistry faculty are involved in some form of outreach to K-12 via demonstrations and programs to elicit excitement for science in young minds. There are also several formal programs funded by various agencies to help in K-12 outreach. Engagement with various corporations is a major part of chemistry's engagement and takes many forms. Many faculty have active consulting |

arrangements with various companies while a significant portion of sponsored research comes from private corporations.

**Diversity**

While seeing improvements in faculty, graduate and undergraduate diversity, the department recognizes that it has much to do in this area. Faculty are actively participating in programs such as Advance, STEP, MAOP, and other activities to improve the multi-cultural climate on campus and within the department.

**Goals for 2007-08**

1. Attract two outstanding female scientists that we have targeted for our bio-materials program.
2. Find the resources to add additional instructors to meet the heavy teaching load while maintaining the excellence we have achieved in undergraduate education.
3. Continue our excellent track record of sponsored program funding and continue to seek large center grants such as MRSEC and additional IGERT grants.
4. Seek additional REU funding for more support for summer undergraduate experiences.