This progress report reviews the actions taken to date on the actions agreed to by the Physics Department in its Memorandum of Agreement dated September 2003.

1) Curriculum Revisions

During the coming academic year, the Physics Department will make it a high departmental priority to revise the lecture and lab components of the calculus-based introductory physics sequences in order:

a) to encourage students to reflect on and interpret data and also to effectively communicate their findings in writing; and

b) to allow students to begin a Physics major during either the Fall or Winter of their freshman year and possibly during the Spring quarter, rather than student entry being restricted to the Fall.

During the autumn quarter of the 2004–2005 academic year, the department held a series of meetings to discuss reshaping the curriculum to make it more flexible. These discussions focused on two areas: the first-year calculus-based physics sequence and the overall structure of the major field requirements.

The introductory calculus-based sequence consists of four courses that must be taken in sequence, consistent with introductory sequences across the country. The department discussed breaking this into two two-quarter sequences that could be taken in either order. We decided that this option was not currently feasible, both for pedagogical reasons and due to the absence of materials (textbooks and other courseware) that supported an alternate approach.

Instead, the department decided to modify the major-field requirements to allow for multiple entry points into the curriculum. We modified the requirements for the department’s Standard Physics concentration to allow students to receive major-field credit for a small number of liberal studies physics courses. We also increased the number of advanced major-field electives in this concentration (from zero to four). These changes will provide students with much greater flexibility in scheduling their courses within the major.

We also created a concentration specifically for students who want to major in physics but follow a non-traditional career path. This new concentration, Interdisciplinary Physics, combines a reduced set of physics requirements with a minor in a second field. This concentration is intended for students who switch to physics after accumulating a significant number of credits in another discipline, or for students who wish to pursue a career outside science, such as science journalism.
These changes were approved by the College Curriculum committee during the Spring 2005 quarter and took effect as of Autumn 2006.

2) **Transitional Masters Program Initiative**
   The Physics Department will pilot a version of the transitional graduate program for minority students through its agreement with Xavier University to have a small number of Xavier students enter the Applied Masters in Physics in Fall 2003. The Physics Department, as well as, Academic Affairs, and the College of Liberal Arts and Sciences are all committed to the initiative and will seek ways to support the program, further details regarding administrative support are listed in the “Common Actions Agreed upon for the Sciences” section of this MOA.

   While all parties (Xavier and DePaul) are still willing and interested in the transitional master's program, the anticipated funding to support students in their graduate work at DePaul has failed to materialize. Until funding can be secured, there is little that can be done to grow the transitional master’s program here at DePaul. There has been progress made in lining up potential Ph.D.-granting institutions (for example, Vanderbilt University, Florida Institute of Technology) to receive the transitional students once their work at DePaul is complete. However, moving forward with formal agreements cannot occur until funds are secured.

3) **Graduate Assistants**
   The Physics Department will determine the roles of graduate assistants within their department and the Lab Coordinator will orient graduate assistants regarding their responsibilities.

   Graduate teaching assistants continue to play an important role within the department. The laboratory coordinator has written a TA manual and is working with the TA’s regarding their training and duties.

4) **Mathematics Sequence**
   The Physics Department will continue working with the Mathematics Department and also the other sciences to examine the first year calculus sequence and second year multivariable calculus sequence. In the spring of 2004 the Physics Department will report on the progress made in changing the content and pedagogy of the first and second year sequences to meet the needs of Physics students.

   During the 2004–2005, the Mathematics Department initiated a new calculus sequence for science majors, MAT 170-171-172, on a pilot basis. This sequence is being taught for the second time during the 2005–2006 academic year. It is anticipated that review of this sequence (and the second year sequence) will occur in the near future.

5) **Diversity**
   The Physics Department remains committed to the recruitment of a diverse student body within its program and to diversity in the hiring process as faculty lines become available. The department also agrees to be open to future conversations with the
Dean of the College of Liberal Arts and Sciences regarding alternative hiring strategies for increasing diversity.

The department has not conducted a faculty search since the MOA was signed.

6) Teacher Preparation
The Physics Department will continue its commitment to the improvement of the preparation of K-12 science teachers through conversations with the Dean of the College and with appropriate persons in the School of Education to investigate what special courses/programs they might introduce for this purpose, possibly including some special certificate programs.

The department supported the recent creation of the Master of Science in Science Education Program, which is designed for middle school teachers in the Chicagoland area. As a part of our support, we have committed to teach courses in this program, beginning in the 2006–2007 academic year.