Fort Lewis College (Colorado) developed a 17 credit, multidisciplinary learning program for first-time freshmen. The Integrated Learning Program (ILP) meets several of the college's general education requirements, is issue-oriented, and is taught by a team of five faculty members. The goals of the program include getting students to learn how to learn, to see and seek connections between disciplines, and to work together collaboratively. The ILP program, which is limited to 50 students, includes a five-day field trip to the Grand Canyon to explore its history, geology, environmental issues, and park management issues. This program has been strongly supported by the administration and has been integrated into the college's course offerings. Some modifications that have been made include fewer reading requirements and fewer extracurricular components. Evaluation efforts have included comparisons of grade point average and retention of students in the ILP program with a matched sample of college freshmen not enrolled in the program. Studies suggest that the students are very satisfied with the course, and do better in subsequent courses than do nonparticipating students, and are also more likely to stay in college. Program evaluation questionnaire responses were obtained from 38 of the 96 students enrolled during the 1992 and 1993 academic years. (SW)
A Model for an Integrated Learning Community

Grantee Organization:

Fort Lewis College
1000 Rim Drive
Durango, CO 81301

Grant Number:

P116B10555

Project Dates:

Starting Date: September 15, 1991
Ending Date: September 15, 1994
Number of Months: 36

Project Directors:

Shaila Van Sickle
English Department
Fort Lewis College
1000 Rim Drive
Durango, CO 81301
(303)-247-7239

Doreen Mehs
Chemistry Department
Fort Lewis College
1000 Rim Drive
Durango, CO 81301
(303)-247-7339

FIPSE Program Officer: Eulalia Cobb

Grant Award:

Year 1 $16,327
Year 2 $70,301
Year 3 $39,102
Total $125,730
Summary

Fort Lewis College has developed a seventeen credit, multidisciplinary learning program for first-time freshmen. The program meets several of the college's general education requirements, is issue-oriented and is taught by a team of five faculty members. The goals of the program include getting students to learn how to learn, how to see and seek connections between disciplines, and how to work together collaboratively. This course has been strongly supported by the administration and has been integrated into the college's course offerings. Studies suggest that the students are very satisfied with the course, do better in subsequent courses and are more likely to stay in college.
Executive Summary

A. Project Overview

The project had its genesis in the sophomore composition seminar team taught by the project directors. This course had a very flexible content and encouraged students to pursue research topics they were curious about. The success of this course led to discussions about the learning/teaching process and strategies for improving student learning. With FIPSE funding we refined our ideas and developed an integrated, full-load course for first-time freshmen. This course has been taught three times, and has become a regular part of the college’s offerings. The students who participated in the program have done better in college than those who have not, and more of them are still at Fort Lewis.

B. Purpose

The problems that the Integrated Learning Program was designed to address were those that arise from students in higher education being discouraged and often prevented from taking an active role in their own educations. Many innovations have been introduced to enhance the collegiate experience by making it more coherent and giving the student a more central role. In addition to these goals, we wanted students to learn how to learn, learn how to see and seek connections between disciplines, and learn how to work together to broaden and deepen their knowledge and understanding. And, we wanted them to enjoy college and stay in college.
C. Background and Origins

The context for the program is Fort Lewis College, a medium-sized (4200 students) public liberal arts college. The administration and several specific administrative offices have been supportive from the beginning, and have become even more supportive as student reports on the efficacy of the program have started to come in.

D. Project Descriptions

The program provides students with a seventeen credit hour load that meets several the Fort Lewis general education requirements and is taught by an multi-disciplinary faculty team. The characteristics of the course include

- Issues rather than the clock determine the class activities
- Texts are used as they are in the real world, as valuable references rather that as daily, detailed lesson plans
- Laboratory and field work are not separated from other course work
- Participation in campus life is integral to the course work
- Students and faculty work together as a community of learners

The project is a one-term multi-disciplinary course for new freshmen. Students are selected by application only. The course is issue oriented. We ask questions that go beyond the boundaries usually explored in a single academic discipline. A highlight of the course is a five-day field trip to the Grand Canyon. Before the trip students read historic accounts of explorations of the region and study the geology of the canyon and what forces formed it.

Our key assumption is that the initial experience that students have in college can have a significant impact on their entire college career. If that initial experience encourages the development of an active learning style, connects the student to the institution, and allows them to work from their own curiosity, then those students will remain in college and be successful in college.

Our strategy for achieving our goals is to offer students a more demanding yet loosely structured class that occupies their entire academic load and explicitly draws connections between disciplines and responds to their questions and curiosities.

We underestimated the intensity of the effort required and the demands on the professorial human resources required to accomplish our goals. The first year the two project directors met with the class continuously, even when the other faculty were directing the activities of the class. The constant attendance maintained the level of multi-disciplinary integration that we were seeking and allowed students to observe faculty functioning as master learners outside of their academic discipline, but it took an enormous toll on the project directors.

To alleviate the pressures we made these adjustments:
Faculty team members meet twice a month for planning, and occasionally we attend each others' sessions. Schedules permitting, we do attend as many of the final student presentations as possible.

We no longer include as many the extra-curricular components of the class, although we still require attendance at some campus events.

Five faculty instead of four are now teaching the program.

We met in regular classrooms instead of dorm lounges and workrooms.

E. Evaluation/Project Results

The evaluation of what students learned is still in its infancy; the first group of students who entered the program in Fall 1992 are now only juniors. We have three sources of good information that serve as an interim evaluative report. The first is based on institutional statistics, the second is the result of a survey conducted in the summer of 1994 of the classes of 1992 and 1993, and the third is a video tape made to disseminate information about the program.

The program has made an impact on the academic lives of many of the participating students as indicated by institutional statistics and the students' own statements. Learning how to learn and learning how to succeed in college seem to be among the most important outcomes of the program. The ILP has passed the college's Curriculum Committee and the Faculty Assembly and is now included a course listed in the college catalog. Present plans include involving new faculty into the program, some to replace, at least occasionally, the two original project directors.

F. Summary and Conclusions

The students changed in that they learned a great deal more from each other than is usually the case in lower division and even in many upper division courses. (The last week is the students' show. They teach the class. They listen to each other. They provide information to each other, some of which appears in the faculty's final exam questions. They praise, evaluate, question and challenge each other. They even quote from each other. In short, they take each other seriously. Their interactions are important as those of the faculty members. They no longer see the faculty as the dispensers of information.
Final Report

A. Project Overview

The project had its genesis in the sophomore composition seminar team taught by the project directors. This course had a very flexible content and encouraged students to pursue research topics they were curious about. The success of this course lead to discussions about the learning/teaching process and strategies for improving student learning. With FIPSE funding we refined our ideas and developed an integrated, full-load course for first-time freshmen. This course has been taught three times, and has become a regular part of the college's offerings. The students who participated in the program have done better in college than those who have not, have not and more of them are still at Fort Lewis.

B. Purpose

The problems that the Integrated Learning Program was designed to address were those that arise from students in higher education being discouraged and often prevented from taking an active role in their own educations. Nationwide, the college experience for most undergraduates is a passive one. Too many students expect to do only as well as their memories will let them. And too many faculty see their function as delivering information in palatable doses and in entertaining ways. Even in institutions devoted to undergraduate teaching, faculty and students alike equate teaching effectiveness with how well information is peddled.

Many innovations have been introduced to enhance the collegiate experience by making it more coherent and giving the student a more central role. Numerous programs have been introduced over the years to accomplish these goals, from Colorado College's block program, to Evergreen's environmentally-focused multi-disciplinary program, to the development of communities of learners with clustered or linked courses. We shared these goals, but also had others:

- We wanted students to develop an appetite for the unknown, following their puzzlements and curiosities.
- We wanted students to tolerate ambiguity rather than suffer from it.
- We wanted students to recognize that new, useful knowledge arises from uncertainties and questions, and that how a question is framed determines the kind of answer it is possible to get.
- We wanted students to discover the joy and challenge of forming questions and attempting to answer them, while recognizing that not all questions have neat answers.
- We wanted students to proceed through Bloom's taxonomy of cognitive levels of
intellectual development (knowledge, comprehension, application, analysis, synthesis, and evaluation) more rapidly.

We wanted students to enjoy learning so much that they stayed in college and stayed at Fort Lewis College.

In essence, we wanted students to learn how to learn, learn how to see and seek connections between disciplines, and learn how to work together to broaden and deepen their knowledge and understanding. And, we wanted them to enjoy college and stay in college. Both project directors have seen students develop these characteristics in individual courses they've taught and in a sophomore composition seminar that they team taught. Upper division science students routinely, daily, and intensely work on intellectually demanding laboratory projects together. The project directors however are impatient--the process of going from new freshmen who want to be fed facts to seniors who prefer to pursue their own questions and find their own answers is unbearably slow. The project described here is our attempt to speed this process up.

As we got into teaching the course, we learned that students are eager to exercise their creativity and curiosity; however, they question the need to revise, to support generalizations with specific evidence, and to critically reflect on their own work and performance. Our main problem is to convince them that intellectual rigor is not easily attainable, yet it must be the goal.

C. Background and Origins

The context for the program is Fort Lewis College, a medium-sized (4200 students) public liberal arts college. The college has been fortunate in having an administration that views faculty attempts at innovation very positively and supportively. In the sixties, 'writing across the curriculum' was unknown, but Fort Lewis faculty developed such a program, with administrative support and encouragement. In the seventies, the physical sciences had an image, and a reality, of being hard and cold, and only those students who could withstand the rigor and lack of encouragement were supposed to succeed--most students did not. In the nineties, Fort Lewis is included as one of eight programs in the physical sciences that work by Sheila Tobias. The administration supported a series of small innovations which warmed up science classrooms at Fort Lewis.

However, as a state-supported institution, Fort Lewis does not have many resources to devote to experimental programs. Major curricular innovations have usually taken a long time to implement. Grant support from FIPSE is most gratefully acknowledged.

The administration and several specific administrative offices have been supportive from the beginning, and have become even more supportive as student reports on the efficacy of the program have started to come in. The administration provided the released time for the additional faculty members to participate in the project while the grant bought the released time for the project directors. The Public Relations office provided partial funding for the recruiting brochure. The Admissions Office personnel have worked very hard in recruiting high school
graduates into the program; they have paid the way of the project directors to recruiting open houses to talk with potential students and their parents about the program. And, most importantly, the administration has picked up most of the cost of continuing the program for the Fall 1994 term.

The President, the Academic Vice President, and the deans are supportive of the program. Students who have been in the program do seem to succeed in later classes, enjoy college life, and a larger number of them stay at Fort Lewis than the college average. Our president, Dr. Joel Jones, said that reports he heard at an AASCU conference indicate that being part of such a community seems to be about the only factor affecting for retention.

D. Project Descriptions
The program provides students with a seventeen credit hour load that meets several the Fort Lewis general education requirements and is taught by an multi-disciplinary faculty team. The characteristics of the course include

- issues rather than the clock determine the class activities
- texts are used as they are in the real world, as valuable references rather that as daily, detailed lesson plans
- laboratory and field work are not separated from other course work
- participation in campus life is integral to the course work
- students and faculty work together as a community of learners

The project is a one-term multi-disciplinary course for new freshmen. Students are selected by application only. The most significant feature of the application package is an essay written by the applicants explaining why they want to be in the program, what they expect to get out of the program, and what they believe they can contribute to the program. Letters of recommendation and a high school transcript complete an application. The essay appears to limit the applicants to those students who have really thought what they want in their college careers so the process is in this respect self-selective. For each of the three years of the program so far we have received between a hundred and two hundred requests for information on the program and from 50 to 100 completed applications. The program is limited to fifty students. The original proposal suggested the possibility of multiple sections as the program developed but it is now clear that as this time the market won't support more than one section. We believe that offering one section to 5% of the incoming freshmen students is about right. We would like to have greater participation from minority students. The first year there were four Native American students; the second year only one. We would like to enroll more Hispanic students.

The course is issue oriented. We ask questions that go beyond the boundaries usually explored in a single academic discipline. A highlight of the course is a five-day field trip to the Grand Canyon. Before the trip students read historic accounts of explorations of the region and study the geology of the canyon and what forces formed it. At the canyon they explore the geology first hand, explore the ruins of early cultures that once lived there, discuss the Park
Service and the mandates and issues that concern the management of the park today, park environmental issues and discuss the aesthetics of the canyon and how aesthetics have changed over the time that man has been in the canyon.

Our key assumption is that the initial experience that students have in college can have a significant impact on their entire college career. If that initial experience encourages the development of an active learning style, connects the student to the institution, and allows them to work from their own curiosity, then those students will remain in college and be successful in college.

Our strategy for achieving our goals is to offer students a more demanding yet loosely structured class that occupies their entire academic load and explicitly draws connections between disciplines and responds to their questions and curiosities.

While we were warned by our FIPSE program officer that we were being too ambitious in what we were requiring of our students and ourselves, and we cut back on our expectations, we underestimated the intensity of the effort required and the demands on the professorial human resources required to accomplish our goals. The first year the two project directors met with the class continuously, even when the other faculty were directing the activities of the class. The constant attendance maintained the level of multi-disciplinary integration that we were seeking and allowed students to observe faculty functioning as master learners outside of their academic discipline, but it took an enormous toll on the project directors.

We could not demand the kind of work in literature, science, anthropology, sociology and composition, while simultaneously asking students to attend, reflect on, discuss and write about campus lectures, plays, concerts etc. Nor could we require weekly discussion of current events through reading of a variety of magazines. We found that expecting college students to do all the reading we assigned was itself a monumental expectation. The directors attended all the class sessions the first half of the first year; we simply couldn't keep that up. However interesting, stimulating and worthwhile being members of the class was, it was too time-consuming and energy draining. Also, the students began to feel as if we were cutting and had let them down if we weren't always there.

In order to see how our students performed during the second semester, we offered the first semester of a year-long class Human Heritage as part of the ILC. Dr. Mehs and Dr. Van Sickle then each taught a follow-up second semester section of Human Heritage. About three-fifths of the fifty students opted to take one those winter term courses. Initially, the readings for the two courses overlapped a great deal and we thought the continuity would be good. But the logistics of juggling two special programs, especially as the aims of their reading lists became increasingly disparate, became unmanageable. To alleviate the pressures we made these adjustments:

- Faculty team members meet twice a month for planning, and occasionally we attend each others' sessions. Schedules permitting, we do attend as many of the final student presentations as possible.
We no longer include as many the extra-curricular components of the class, although we still require attendance at some campus events. We require fewer readings from current magazines and journals. Five faculty instead of four are now teaching the program. We met in regular classrooms instead of dorm lounges and workrooms.

Explicit integration of disciplines did suffer as a result of these changes but we partially ameliorated this problem by weekly meetings of the faculty participants. We still need to make improvements in this area.

E. Evaluation/Project Results

The evaluation of what students learned is still in its infancy; the first group of students who entered the program in Fall 1992 are now only juniors. We have three sources of good information that serve as an interim evaluative report. The first is based on institutional statistics, the second is the result of a survey conducted in the summer of 1994 of the classes of 1992 and 1993, and the third is a video tape made to disseminate information about the program.

1. Statistical Information

The institutional statistics address primarily two goals of the program. These goals are to improve the retention of the students in the program in college and to give these students a better faster start on their college careers. As is often the case with statistical investigations, the results raise questions that can probably addressed with the information contained in the database, but the original study wasn't designed to extract all the necessary information. Thus, the discussion below will address the initial goals of the statistical study and raise the questions that will direct further study.

Two control groups were identified For comparison with the Integrated Learning Program students. The first control group is the entire freshman class that entered at the same time as the ILP groups. The second control group was a carefully matched group based on admissions criteria. That is, each ILP student was directly matched to another, non-ILP, entering freshmen based on the criteria used for admission to Fort Lewis College.

The primary admissions criterion for public institutions of higher education in the State of Colorado is the Admissions Index. This index is a composite of high school performance measured by GPA and rank in the graduating class, and performance on the ACT or SAT college entrance examinations. Each ILP student was matched with a student not in the ILP who had the same Admissions Index. In many cases this resulted in many students from the entire class freshman class matching the ILP student; in these cases additional criteria were added to reduce the size of the individual control. Other criteria used were age, course load, ethnicity, ACT or SAT scores, or FLC placement tests in English composition and mathematics. The direct match control group still often had multiple matches for each ILP student. In the cases with multiple
matches, all the matches were used to provide a composite matching student.

It is presumed that students who get a better start on college will have better college GPA's as they proceed through college. Graph 1 and Graph 2 show the cumulative GPA's for the first two ILP student groups compared to the individual control group which was described above. The first ILP group gained grades lower than their control group for their first term in college. Their GPA's increased faster than their control group in their second term. The ILP participants did better in courses where they were directly competing with their control group. The control group caught up some in the first term of their sophomore year. Both groups dropped in the second term of the sophomore year. The data for the second ILP group shows that in their first term at college the control group did better than the ILP group, but when, in the next term, these two groups were in direct competition with each other, the ILP group did better. As measured by GPA's, the Integrated Learning Program participants are learning more and doing better in college than their directly matched control group.

Graph 3 and Graph 4 show the comparison in retention for both ILP groups with their control groups and with the retention of the entire freshman class. The first ILP group and its control group have very similar retention rates, with both groups are significantly higher than the retention of the entire freshman class of which they were a part. This is an unexpected result. We have several hypotheses as to why this may be true. Of course, it could simply be fortuitous with a group as small as 47. But, it might also be due to selecting students for the program who have some set of qualifications that are directly related to success at Fort Lewis. Based upon our most important admissions criterion, the Admission Index, it is possible that particular ranges of admission indices are more likely to be retained than other ranges, and there is some statistical support for this suggestion. It appears that institutionally students with the very low and the very high indices are least likely to remain in college at Fort Lewis. This is a statistical direction worth pursuing in the future. It is also likely that some of the other criteria (FLC placement tests in composition and math, age, course load, ACT scores) mentioned above in selecting the control group are more critical to success than initially presumed. These are directions that we will pursue as time and college resources allow.

The retention data for the Second ILP group show that the ILP students return to Fort Lewis for their sophomore year in significantly higher numbers than the control group. It is also well to note that 50% of the entire freshman class which entered in the Fall of 1993 returned in the Fall of 1994. The ILP group is well above the entire freshman class retention while the control group is slightly (and not significantly) below the retention percentage for the entire freshman class. We, of course, need to continue to track this group to see if the patterns that are emerging for the first ILP group are going to appear here.
Second Integrated Learning Program

Retention

% Retention

F94

W94

Term

Control

ILP

#4

20

13
2. Summary of Student Questionnaire Responses

We sent out a questionnaire in July 1994 to the 96 students enrolled during the first two experimental years, 1992 and 1993. We received thirty-eight responses, or almost 40%. Comments were more informative than quantitative answers and are interspersed with our statements about goals, accomplishments, disappointments, and sticky points which follow the list of questions for which we've tabulated results:

We asked twenty questions and received the following quantitative answers.

1) Would you recommend the program to other students?

<table>
<thead>
<tr>
<th></th>
<th>1992</th>
<th>1993</th>
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<tbody>
<tr>
<td>yes</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>no</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>yes but qualifications</td>
<td>4</td>
<td>7</td>
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The qualifications concerned willingness to work with others in groups and teams, if students truly wanted to learn and were not just going to college because it was the next step, if students were willing and able to take lots of responsibility, if students are eager to be involved in an ongoing academic discourse, if students could earn separate grades instead of just one grade and, if the material were less general and more related to majors.

2) How well did the program prepare you to do the work you had to do in further college classes as compared to starting with standard freshman classes.

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<table>
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<tr>
<td>very well</td>
<td>17</td>
</tr>
<tr>
<td>better</td>
<td>15</td>
</tr>
<tr>
<td>same as</td>
<td>4</td>
</tr>
<tr>
<td>not as well as</td>
<td>3</td>
</tr>
<tr>
<td>very poorly</td>
<td>0</td>
</tr>
</tbody>
</table>

(w ith c o m m e n ts a b o u t i n c r e a s e d responsibility and being lost if you got behind)

(b e c a u s e o f f e w e r c l o s e d b o o k a n d objective exams)

3 Our chief goal was to get students actively involved in what they were studying and in their own learning. In retrospect, how involved did you feel?

<p>| | |</p>
<table>
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<tbody>
<tr>
<td>very</td>
<td>29</td>
</tr>
<tr>
<td>somewhat</td>
<td>9</td>
</tr>
<tr>
<td>not at all</td>
<td>0</td>
</tr>
</tbody>
</table>

11
4 In your estimation, how involved were a majority of the members of the class?
   very 17  somewhat 21  not at all 0

5 Another important goal was to show that knowledge and approaches to information can't be neatly compartmentalized. How well did the program succeed in showing this?
   very well 24  somewhat well 14  not at all 9

Comments amplifying answers to this question most often mentioned the five day trip to the Grand Canyon, where we saw the geology, botany, archaeology, contemporary problems faced by trying to preserve what many consider to be their birthright while allowing visitors to appreciate the canyon and to learn about it. Despite being a western park, it faces some of the problems of our largest urban areas. Quite a few students said the freshmen composition portion of the program served as a uniting factor; several commented on the value of getting to take field trips and to work in different science laboratories.

6 We also wanted students to take responsibility for understanding what they were learning, not just giving back information gleaned from texts and teachers. In what ways did the program encourage you to take that responsibility.

   Lots of students commented about how working in small groups and teams made them feel responsible to their classmates. Others said that having to write about and discuss what they were studying made them think hard about the significance of the material.

7 We wanted students to feel an obligation to present what they were learning well, both orally and in writing. How successful was the program in encouraging its members to feel that obligation?
   Very 27  Somewhat 11  Not at all

One student commented, "This was the first time in my academic career that I was truly eager to share my knowledge through both oral and written communication."

8 Much of the work you'll be doing as adults in the "real" world will be collaborative rather than individual. How successful was the program in fostering a spirit of collaboration?
   Very 22  Somewhat 16  Not at all 0

There was a great variety in how students responded to group work. In general, they thought the discussions and joint oral projects worked better than written group projects. The unevenness of
effort bothered them most. Many students liked the amount of discussion and getting to learn from others, the sense of working for insight rather than grades all the time, but a few found some of the group activities constraining and a few felt unfairly evaluated.

9 We believe that providing an opportunity for beginning students to work closely with their instructors is beneficial. Did you feel you had a chance to work closely with your instructors?

| Yes    | 31 |
| No     | 1  |
| Sometimes | 6  |

- no but the opportunity was there

(size of class mentioned)

Comments to this question were very positive, both about the program and about some other classes at Fort Lewis. Comparisons with friends not in the program or at other colleges pointed out that the individual conferences and the chance to see progress outside of class were the most valuable parts of the program.

10-11 We tried a variety of teaching techniques-lectures, labs, group projects, revision of writing assignments, group oral reports, group writing assignments, large group discussions, small group discussion, conferences. Which ones do you remember as being the most and least successful for you? Why?

What some students liked best, others liked least. The answers covered all the options. Interestingly, in a video being made with students enrolled in the 1994 class, lectures seem to be the most popular. That was not the case in the first two classes. Group writing assignments were least popular, though a few students saw their value and recognized that trying to meld ideas together and working to edit the whole created a sense of ownership that individual assignments didn't.

Questions 12-14 asked about activities that should be kept, discarded or added.

The highlights of the course were our two field trips, to the Grand Canyon and to the nearby Lowry Ruins with Jim Judge, archaeologist. Even those students who had said that they hadn't found certain activities very successful recommended keeping them. Several students said they wished the class could have been a little smaller, (desirable but not economically feasible), others suggested special orientation sessions for Integrated Learning Program participants (we did that in the summer of 1994 and it worked well), several wished to have a M-F week instead of a T-Sat week. (We honored that request, although it made scheduling the laboratories around the ILP instructors' and the visiting instructors' schedules difficult.) For next year, we'll announce that a few Saturdays will be taken up for class field trips or labs.
3. Video Tape

The video tape that accompanies this report was filmed and edited by Bliss Gilford. It presents a picture of the program, some of the activities of the program, and comments from present and former students in the program. She and some of this year's participants are still working on editing this video.

The program has made an impact on the academic lives of many of the participating students as indicated by institutional statistics and the students' own statements. Learning how to learn and learning how to succeed in college seem to be among the most important outcomes of the program. The ILP has passed the college's Curriculum Committee and the Faculty Assembly and is now included a course listed in the college catalog. Present plans include involving new faculty into the program, some to replace, at least occasionally, the two original project directors.

F. Summary and Conclusions

1. Insights gained

Students feel less overwhelmed when they're in a learning environment where they quickly become individuals to their instructors and where their peers become a significant part of their academic community.

Faculty who work closely with students in small groups and individual conferences, labs and field work become coaches and colleagues as well as lecturers and grade-givers. This changes the dynamics of the first time student's relationship with faculty members. Believing that their teachers genuinely care about them, about what they think and how they're performing encourage students to work hard and feel worthwhile in an academic setting.

2. Advice to Others

We believe that every campus and every faculty team is unique and that what works in one place for one group of people can not be exported to another place and another group. However, we do believe that our experimental program shows that a multi-disciplinary integration can work for students and faculty alike better than many interdisciplinary programs. We each teach from what we know best and then discuss the links with each other and our students. Including the students in our discussions, perplexities and challenges will, we hope, let students see that knowledge if not static and that mastery is not listing a series of "facts." It's
good to introduce students early in their college careers to the enjoyment of intellectual conversations and the academic enterprise. Just how that can be done will vary from campus to campus.

3. How did we change as a result of the project

A group of senior faculty changed in a number of ways as a result of working in this program together:

- We were exposed to other teaching techniques.
- We were humbled by others' expertise and teaching skills.
- We came to know freshmen as well as we usually get to know only our most dedicated majors.
- We supported freshmen in individual and small group projects.
- We relinquished some of the material that we would ordinarily cover.

Students and faculty were freed from some of the time-in-class = credit hour constraints. Students had almost an uninterrupted week to meet in small groups and with individual faculty members, write their term papers and rehearse their final oral presentations with one of the instructors.

The students changed in that they learned a great deal more from each other than is usually the case in lower division and even in many upper division courses. (The last week is the students' show. They teach the class. They listen to each other. They provide information to each other, some of which appears in the faculty's final exam questions. They praise, evaluate, question and challenge each other. They even quote from each other. In short, they take each other seriously. Their interactions are important as those of the faculty members. They no longer see the faculty as the dispensers of information.)
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