UCF CIVIL AND ENVIRONMENTAL ENGINEERING ALUMNI SURVEY 2002

Ms. Marjorie Salazar
Mr. Daniel Suleski

OEAS-SR-02-006
October 29, 2002

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ABSTRACT

An alumni survey was conducted of UCF Civil and Environmental Engineering alumni in the Spring of 2002. An older version of the survey was revised by the UCF Office of Operational Excellence and Assessment Support (OEAS) to assess the educational outcomes of Civil and Environmental Engineering graduates, both undergraduate and graduate. The support provided by OEAS included revising the survey and preparing documentation of the survey results. The staff of the UCF Civil and Environmental Engineering Department was responsible for the distribution and collection of surveys.

Four hundred and fifty-one (451) alumni responded to the survey. Overall, graduates of the UCF Civil and Environmental Engineering department were very satisfied with the educational experience provided, with 86% of graduates in each program indicating that their overall experience was either 'Excellent' or 'Very good.' Graduates indicated that opportunities exist to increase preparation in computer, communication, and managerial skills.

Acknowledgements

Special thanks go to Dr. Manoj Chopra, Assistant Chair, UCF Department of Civil and Environmental Engineering, and his assistant Carol Ann Pohl for their assistance in the writing and administration of the UCF Civil and Environmental Engineering Alumni Survey 2002.

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1.0 INTRODUCTION AND BACKGROUND

The UCF Office of Operational Excellence and Assessment Support (OEAS) was contacted by Dr. Manoj Chopra, assistant chair of the UCF Civil and Environmental Engineering Department (CEE), in the Fall of 2001 for assistance in revising an Alumni survey. Data from the survey is to be used to assess whether the Civil and Environmental Engineering programs are meeting their educational outcome objectives.

2.0 DESCRIPTION OF THE SURVEY AND ANALYSES CONDUCTED

The UCF Civil and Environmental Engineering Alumni Survey, as revised by OEAS, gathers general demographic information on alumni such as when they graduated, what degree level they attained, professional society membership, and current employment data. In addition, alumni are asked to rate their overall experience in the program, and their level of agreement with a list of statements regarding the quality of education they received.

The survey results were hand-entered by OEAS staff into SPSS (Statistical Package for the Social Sciences) for data analysis. Frequency tables displaying percentages and counts were produced. Additionally, differences between groups were investigated (for example, B.S. versus M.S./Ph.D. alumni, year graduated, etc.), but no results proved significant.

3.0 METHODOLOGY FOR ADMINISTRATION OF THE SURVEYS

Survey instruments were mailed by the CEE department to 1,265 graduates of the programs in the Spring of 2002. Of these, 451 surveys were returned, yielding a response rate of 35.7%.

4.0 RESULTS

4.1 Alumni Profile

The majority of alumni surveyed had earned their Bachelor's degree from UCF. Twice as many graduates surveyed from the Environmental program (33.0%) had earned an advanced degree than those surveyed from the Civil program (15.5%).

Table 1: Degree Level Obtained from UCF Civil and Environmental Engineering Department

			Total	Civil	Environmental
Degree Level	Bachelor's Degree	%	91.5%	94.6%	86.8%
	Master's Degree	%	20.1%	14.3%	30.8%
	Doctorate	%	1.6%	1.2%	2.2%
Total	%		113.2%	110.0%	119.8%
	Cases		448	259	182

The majority of graduates surveyed from the UCF Civil and Environmental Engineering programs had earned their degree since 1995.

Table 2: Year Graduated from UCF Civil and Environmental Engineering Department

			Total	Civil	Environmental
Year Graduated	1970-1979	%	13.1%	5.8%	21.1%
	1980-1989	%	23.9%	28.3%	17.2%
	1990-1994	%	23.9%	22.1%	27.8%
	1995-1999	%	42.9%	43.0%	46.1%
	2000-2002	%	9.9%	11.2%	8.9%
Total	%		113.8%	110.5%	121.1%
	Cases		443	258	180

Most graduates surveyed indicated that they work in 'Consulting.' The next largest sectors of employment for Civil and Environmental Engineering alumni are 'State or Federal regulatory agency' and 'Non-regulatory governmental (local, state, or federal).'

Table 3: Sector of Current Employment

			Total	Civil	Environmental
If currently employed, in which sector?	Not currently employed	%	2.2%	1.5%	3.3%
	Consulting	%	59.5%	66.4%	50.3%
	Industry	%	7.8%	6.9%	7.7%
	State or Federal	%	11.1%	10.0%	13.3%
	Non-regulatory	%	12.5%	9.3%	17.7%
	Academic	%	1.8%	1.2%	2.8%
	Research	%	1.6%	1.2%	1.7%
	Other sector	%	5.3%	4.6%	6.1%
Total	%		101.8%	101.2%	102.8%
	Cases		449	259	181

The most often reported fields of employment from the Civil Engineers surveyed were: 'Transportation,' 'Water Resources,' 'Structures,' and 'Water/Wastewater.' The top reported fields of employment from Environmental Engineers surveyed were 'Water/Wastewater' and 'Water Resources.' Approximately one-fourth of graduates from each program indicated that they work in an 'Other field.'

Table 4: Field of Current Employment

			Total	Civil	Environmental
If currently employed, in which field?	Not currently employed	%	2.3%	1.6%	3.4%
	Water/Wastewater	%	26.1%	13.7%	44.1%
	Air	%	3.6%		9.0%
	Water Resources	%	22.7%	21.2%	24.9%
	Structures	%	11.8%	19.2%	1.1%
	Solid Waste	%	3.4%	1.6%	6.2%
	Transportation	%	23.4%	34.1%	8.5%
	Geotech	%	4.8%	6.7%	1.7%
	Regulatory	%	3.9%	2.4%	6.2%
	Non-engineering	%	1.8%	1.2%	2.8%
	Other field	%	26.8%	26.3%	25.4%
Total	%		130.4%	127.8%	133.3%
	Cases		441	255	177

4.2 Satisfaction

Graduates of both programs reported a high level of satisfaction with their educational experience at UCF. On a 5-point scale where 5 is 'Excellent' and 1 is 'Poor', the Civil program alumni reported an average satisfaction level of 4.1, and the Environmental alumni 4.2. Looking at the following graphs it appears that alumni from the Environmental program were slightly more satisfied, as 41.0% rated their educational experience 'Excellent', compared to 25.1% of the Civil program graduates surveyed.

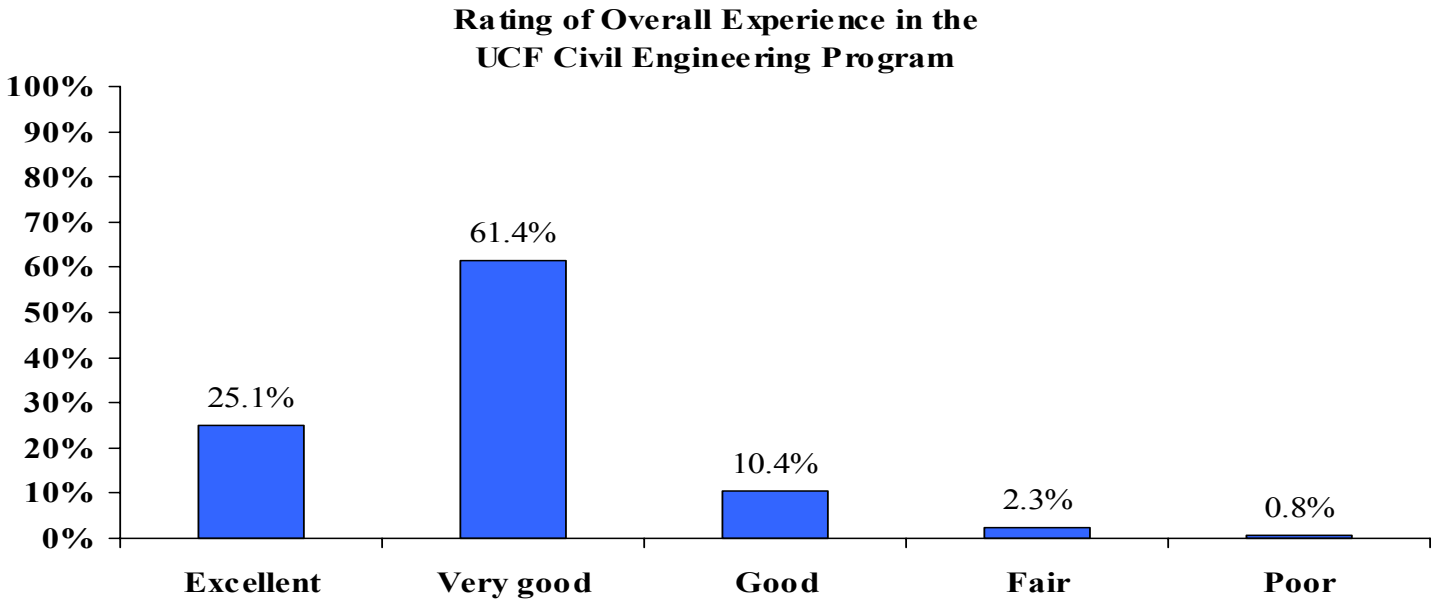

Figure 1: Overall Experience in Civil Engineering

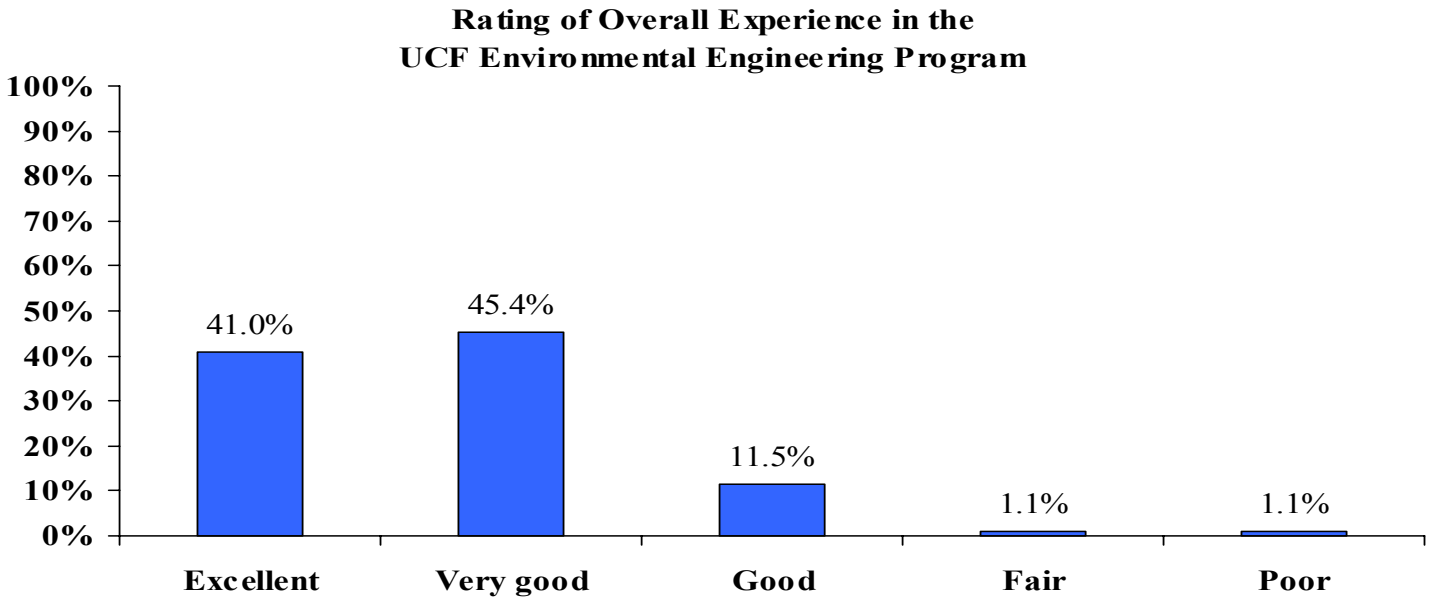

Figure 2: Overall Experience in Environmental Engineering

When asked to rate their level of agreement with 12 statements regarding their educational experience (see Figures 3 and 4 below), a majority of both Civil and Environmental alumni agreed with all statements except for “The program developed my managerial skills.”

Consistent with the accreditation requirements of the College of Engineering, some specific questions were included in the CEE Alumni survey. These assessment measures were:

- Level of alumni agreement with the statement “The program developed my communication skills.” Sixty-one percent (61%) of each Civil and Environmental Engineering alumni agreed with this statement. The assessment measure target was 75% agreement.

- Level of alumni participation in professional societies, as a measure of the objective to encourage life-long learning and continuing education. Ninety-two percent (92%) of Civil and 87% of Environmental Engineering alumni reported already having or planning to obtain their Professional Engineer (P.E.) certification. Fifty-five percent (55%) of Civil and 54% of Environmental graduates reported regular participation in a professional society. The assessment measure target was 75% agreement that the program encouraged life-long learning and continuing education.

- Level of alumni agreement with the statement “The program developed my ability to solve real-world problems.” Eighty-one percent (81%) of Civil and 83% of Environmental Engineering alumni agreed with this statement. The assessment measure target was 75% agreement.

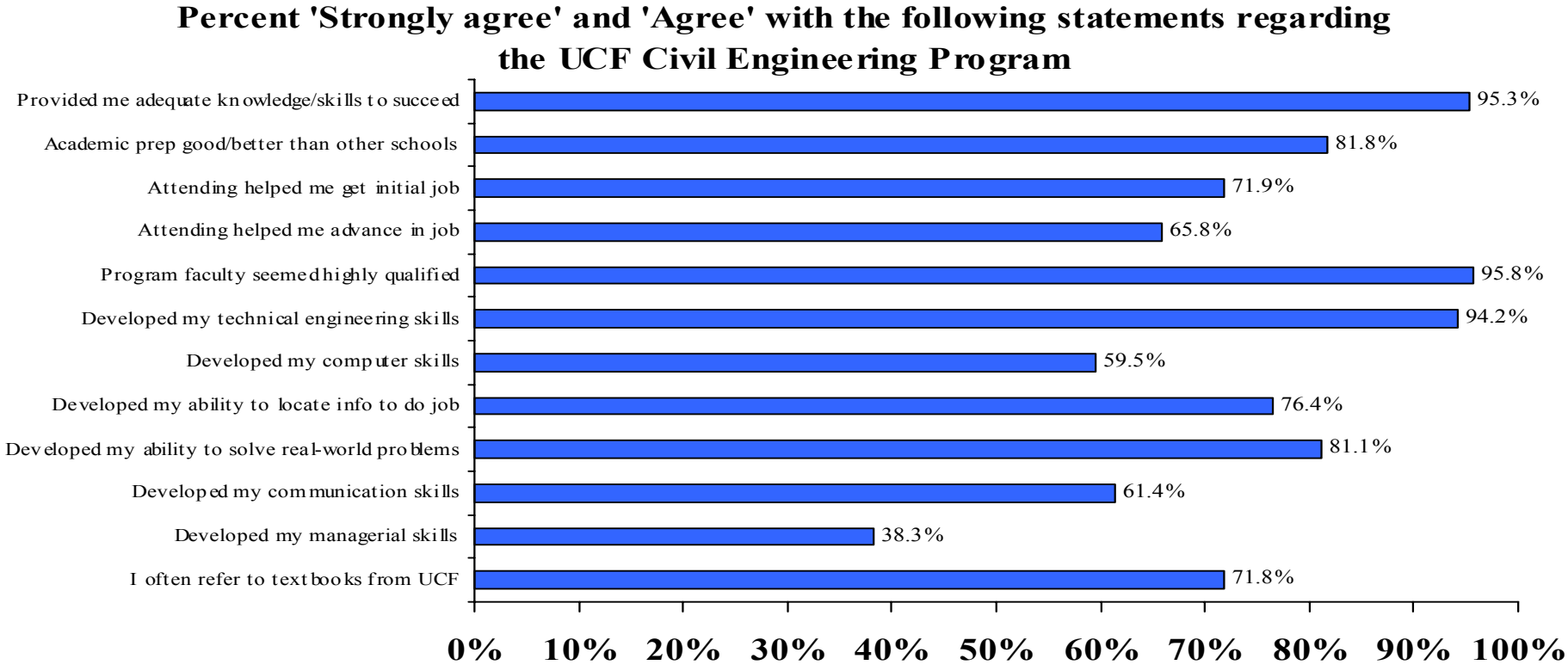

Figure 3: Agreement with Educational Outcome Statements for Civil Engineering

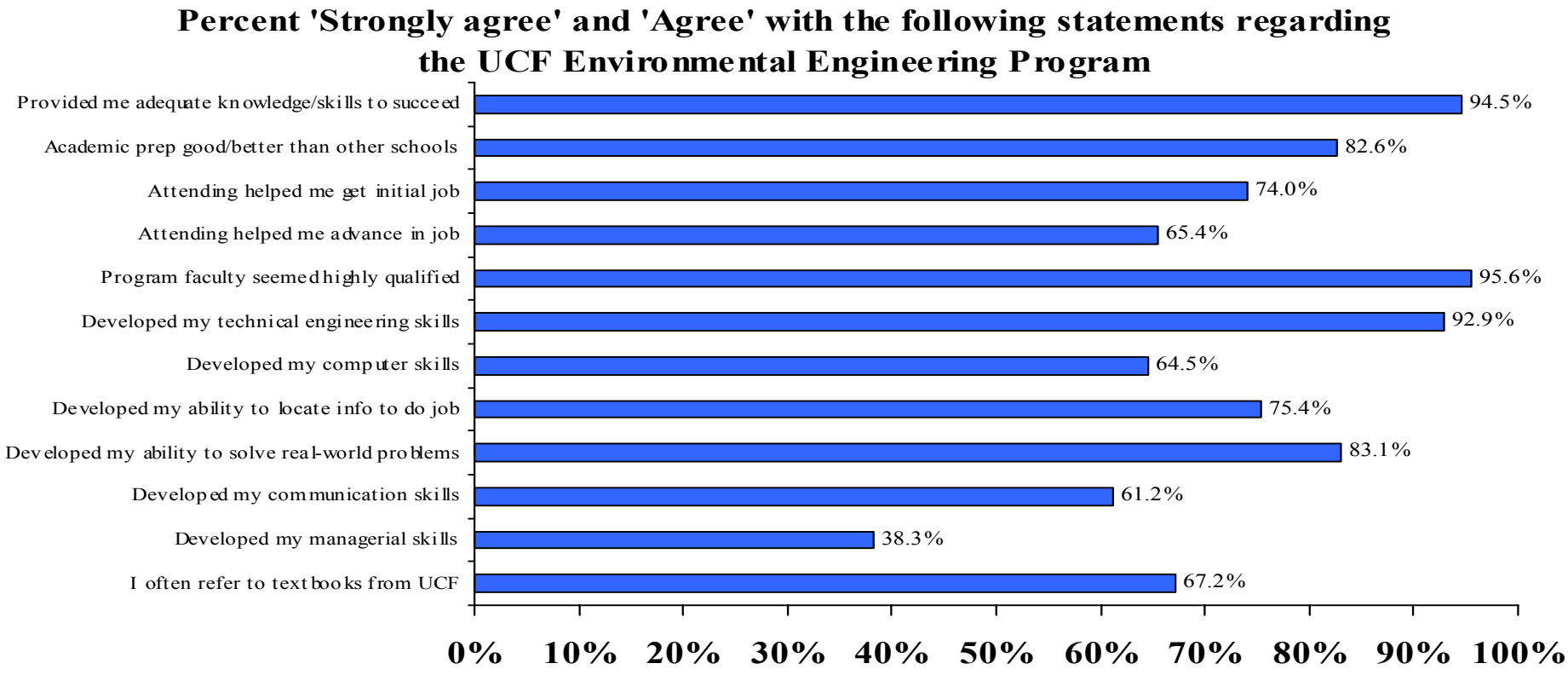

Figure 4: Agreement with Educational Outcome Statements for Environmental Engineering

5.0 RECOMMENDATIONS

- Add a question to the survey to directly address the assessment measure target that 75% of alumni will agree that “The program encouraged life-long learning and continuing education.”

- Improve data integrity by conducting the survey more frequently. This will ensure that the program alumni will be able to more accurately reflect on their experience.

- Improve the survey response rate, perhaps by conducting follow-up telephone calls or offering a web-based option to take the survey.

- Address graduates’ concerns regarding their lower levels of satisfaction with the preparation they received in computer, communication, and managerial skills.

APPENDIX A

ALUMNI SURVEY
UCF Civil and Environmental Engineering

We would appreciate your answers to the following questions to help us evaluate and improve the Civil and Environmental Engineering (CEE) program at UCF. Please return this completed survey to the UCF CEE Department in the enclosed envelope.

1. In the table below, please indicate the degree level, program, and year of graduation of each degree you received from the UCF Civil and Environmental Engineering program at UCF.

	Degree Level (B.S., M.S., or PhD.)	Program (Civil or Environmental)	Year of Graduation
EXAMPLE	*B.S.*	*Civil*	*2000*
DEGREE 1			
DEGREE 2			
DEGREE 3			

Thinking about the highest degree that you received from the UCF CEE program, please answer the remaining questions:

2. In general, how would you rate your overall experience in the UCF Civil and Environmental Engineering program? **[Please circle your response.]**

   Excellent Very good Good Fair Poor

3. Based on the scale below, to what extent do you agree or disagree with the following statements regarding your experience in the UCF Civil and Environmental Engineering program? **[Please circle your responses.]**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	SA	A	N	D	SD
I feel that my academic preparation was as good or better than that of my colleagues from other schools.	SA	A	N	D	SD
I feel that attending UCF helped/will help me get my initial job.	SA	A	N	D	SD
I feel that attending UCF has helped/will help me advance in my job.	SA	A	N	D	SD
In general, the program faculty seemed highly qualified.	SA	A	N	D	SD
The program developed my technical engineering skills.	SA	A	N	D	SD
The program developed my computer skills.	SA	A	N	D	SD
The program developed my ability to locate information I would need to do my job.	SA	A	N	D	SD
The program developed my ability to solve real-world problems.	SA	A	N	D	SD
The program developed my communication skills.	SA	A	N	D	SD
The program developed my managerial skills.	SA	A	N	D	SD
I often refer to my textbooks and/or other resources obtained while at UCF.	SA	A	N	D	SD

Continued on reverse side

4. Are you a registered Professional Engineer (P.E.)? **[Please circle your response.]**

   Yes No

5. If not, do you plan to obtain your P.E.?

   Yes No

6. Do you regularly participate in a professional society?

   Yes No

7. If you are currently employed, in which sector? **[Please check (✓) your response]**

_____ Not currently employed
_____ Consulting
_____ Industry
_____ State or Federal regulatory agency
_____ Non-regulatory governmental (local, state, or federal)
_____ Academic
_____ Research
_____ Other, please specify: _____

8. If you are currently employed, in which field? **[Please check (✓) your response]**

_____ Not currently employed
_____ Water/Wastewater
_____ Air
_____ Water Resources
_____ Structures
_____ Solid Waste
_____ Transportation
_____ Geotech
_____ Regulatory
_____ Non-engineering
_____ Other, please specify: _____

Please feel free to add any other comments or suggestions you may have to improve our program.

THANK YOU!

APPENDIX B

UCF Civil Engineering
ALUMNI SURVEY 2002

		%	Count
Degree Level	Bachelor's Degree	94.6%	245
	Master's Degree	14.3%	37
	Doctorate	1.2%	3
Total		110.0%	259

UCF Civil Engineering
ALUMNI SURVEY 2002

		%	Count
Year Graduated	1970-1979	5.8%	15
	1980-1989	28.3%	73
	1990-1994	22.1%	57
	1995-1999	43.0%	111
	2000-2002	11.2%	29
Total		110.5%	258

UCF Civil Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
In general, how would you rate your overall experience in the UCF Civil and Environmental Engineering program?	1 Poor	.8%	2
	2 Fair	2.3%	6
	3 Good	10.4%	27
	4 Very Good	61.4%	159
	5 Excellent	25.1%	65
Total		100.0%	259

UCF Civil Engineering
ALUMNI SURVEY 2002

	Total	
	Mean	Count
In general, how would you rate your overall experience the UCF Civil and Environmental Engineering program	4.1	259

UCF Civil Engineering
ALUMNI SURVEY 2002

		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	Total
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	Count		2	10	149	98	259
I feel that my academic preparation was as good or better than that of my colleagues from other sc	Count		9	38	127	85	259
I feel that attending UCF helped/will help me get my initial job.	Count	6	7	59	88	96	256
I feel that attending UCF has helped/will help me advance in my job.	Count	2	11	75	104	65	257
In general, the program faculty seemed highly qualified.	Count	1	3	7	151	97	259
The program developed my technical engineering skills.	Count		1	14	152	91	258
The program developed my computer skills.	Count	4	28	72	119	34	257
The program developed my ability to locate information I would need to do my job.	Count	3	6	52	140	57	258
The program developed my ability to solve real-world problems.	Count	3	10	36	142	68	259
The program developed my communication skills.	Count	5	19	76	118	41	259
The program developed my managerial skills.	Count	5	41	113	77	22	258
I often refer to my textbooks and/or other resources obtained while at UCF.	Count	4	19	50	135	51	259

UCF Civil Engineering
ALUMNI SURVEY 2002

		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	Total
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	%		.8%	3.9%	57.5%	37.8%	100.0%
I feel that my academic preparation was as good or better than that of my colleagues from other sc	%		3.5%	14.7%	49.0%	32.8%	100.0%
I feel that attending UCF helped/will help me get my initial job.	%	2.3%	2.7%	23.0%	34.4%	37.5%	100.0%
I feel that attending UCF has helped/will help me advance in my job.	%	.8%	4.3%	29.2%	40.5%	25.3%	100.0%
In general, the program faculty seemed highly qualified.	%	.4%	1.2%	2.7%	58.3%	37.5%	100.0%
The program developed my technical engineering skills.	%		.4%	5.4%	58.9%	35.3%	100.0%
The program developed my computer skills.	%	1.6%	10.9%	28.0%	46.3%	13.2%	100.0%
The program developed my ability to locate information I would need to do my job.	%	1.2%	2.3%	20.2%	54.3%	22.1%	100.0%
The program developed my ability to solve real-world problems.	%	1.2%	3.9%	13.9%	54.8%	26.3%	100.0%
The program developed my communication skills.	%	1.9%	7.3%	29.3%	45.6%	15.8%	100.0%
The program developed my managerial skills.	%	1.9%	15.9%	43.8%	29.8%	8.5%	100.0%
I often refer to my textbooks and/or other resources obtained while at UCF.	%	1.5%	7.3%	19.3%	52.1%	19.7%	100.0%

UCF Civil Engineering
ALUMNI SURVEY 2002

	Total	
	Mean	Count
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	4.3	259
I feel that my academic preparation was as good or better than that of my colleagues from other sch	4.1	259
I feel that attending UCF helped/will help me get my initial job.	4.0	256
I feel that attending UCF has helped/will help me advance in my job.	3.9	257
In general, the program faculty seemed highly qualified.	4.3	259
The program developed my technical engineering skills.	4.3	258
The program developed my computer skills.	3.6	257
The program developed my ability to locate information I would need to do my job.	3.9	258
The program developed my ability to solve real-world problems.	4.0	259
The program developed my communication skills.	3.7	259
The program developed my managerial skills.	3.3	258
I often refer to my textbooks and/or other resources obtained while at UCF.	3.8	259

UCF Civil Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
Are you a registered Professional Engineer (P.E.)?	Yes	53.7%	139
	No	46.3%	120
Total		100.0%	259

UCF Civil Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
If not, do you plan to obtain your P.E.?	Yes	84.0%	100
	No	16.0%	19
Total		100.0%	119

UCF Civil Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
Do you regularly participate in a professional society?	Yes	54.9%	141
	No	45.1%	116
Total		100.0%	257

UCF Civil Engineering
ALUMNI SURVEY 2002

		%	Count
If currently employed, in which sector?	Not currently employed	1.5%	4
	Consulting	66.4%	172
	Industry	6.9%	18
	State or Federal regulatory agency	10.0%	26
	Non-regulatory governmental (local, state, or federal)	9.3%	24
	Academic	1.2%	3
	Research	1.2%	3
	Other sector	4.6%	12
Total		101.2%	259

UCF Civil Engineering
ALUMNI SURVEY 2002

		%	Count
If currently employed, in which field?	Not currently employed	1.6%	4
	Water/Wastewater	13.7%	35
	Air		
	Water Resources	21.2%	54
	Structures	19.2%	49
	Solid Waste	1.6%	4
	Transportation	34.1%	87
	Geotech	6.7%	17
	Regulatory	2.4%	6
	Non-engineering	1.2%	3
	Other field	26.3%	67
Total		127.8%	255

Civil Engineering Survey Additional Comments

I hope you have a surveying class now. A class in project management and technical writing is something that would really be beneficial (I do a lot of it now). I did take 12 hours of communications classes from the college of communications in order to develop my public speaking skills (which I do now in my profession).

It is my experience that surveying should be offered at UCF, it was not when I attended. I found it necessary to my job performance to take the class once I had graduated. More practical knowledge/experience is needed, not instead of theory, but in addition to – the practical application of the learned theory is an engineer's job. Encourage educators to take periodic sabbaticals for real world experience. Two classes that would benefit anyone are construction engineering and a time & resource management course.

UCF is an excellent school/university with well-respected professors.

Dr. Chopra, you were one of the best parts about my experiences at UCF and for that, I thank you.

I feel that the education I received at UCF was first rate. It prepared me well to pass the PE and advance my career to the level beyond my expectations.

Working with the local engineering community to create more opportunities for part-time employment for the students would greatly enhance what UCF can offer students.

Its good to hear the work by Wanielista and Taylor quoted at seminars, but where's everyone else and what's been published lately?

Dr. Chopra and his staff offer an excellent program that I recommend to any thinking about engineering.

Program upper level courses should focus more on preparing young engineers to function in the business and technical world; learn to read/produce blueprints, communications, computer CADD and design software exposure.

I look back on my years at UCF with the best of memories. The education I received not only enabled me to get my PE but I own my own consulting firm as well.

The program needs to prepare students better in using computer programs, also more focus should be made on the EIT exam, some professors are not helpful, every teacher should learn from Dr. Chopra.

More should be done to expose the student body to real hands-on design and field experience – and most importantly interaction with people, as interaction is very important, when you have to deal/navigate out in the real world. I can say now, that my two (2) semesters of co-op education immensely helped me in the following years – and to get my first job.

Took classes in civil engineering less than 2 years ago and believe that you are on track. Keep up the good work.

Incorporate more engineering plans, how to create, read, etc.

Focus on software that relates to the engineering discipline, ex. Micro station/geopak for transportation. CADD skills are important. This was not an option when I attended UCF in 96.

I'm very proud of the degree I earned @ UCF, it was the most challenging intellectual exercise one could expect to experience in a university.

When I attended UCF, one aspect I enjoyed is that the program was very broad engineering wise, with most of the civil classes in the senior year.

UCF provided a good baseline technical education for me. Obviously, the industry specific training has occurred during my employment. Interpersonal relationship and managerial skills have also been developed after my time at UCF. It would be beneficial for UCF to implement these in the engineering program.

Inconsistent expectation between classes.

Go UCF!!

Providing more communication and business courses will be a big asset to an engineer graduate. Also, provide a better-equipped lab with the latest technology.

Since I worked full time and looked at colleges around the state to transfer my job by I found UCF the most helpful to obtain my degree and maintain my full time position with the state.

UCF gave me a well-balanced engineering core to aid in my advancement and design of all aspects dealing with land development. I do suggest some courses dealing with people skills/management/negotiations/contracts, etc.

Internships should be considered as part of the civil/environmental engineering curriculum.

I think internships should be mandatory in our programs. I was working in CE through most of my time at UCF and these experiences have come in handy many times lately, both in a networking capacity and a technical one.

My overall experience was good. I transferred from a private engineering school where the curriculum had you focus more on your major and not so general in the beginning. I know we need to be well rounded, but focusing on your major (if you know what it is) made me more interested in my studies.

Based on 1984-87 attendance: Areas of improvement – Management & Scheduling; Communications; real world applications; more involvement from faculty advisors/mentorship programs. Employed in Orlando, I have interviewed several UCF candidates for both permanent and part-time positions. In general, I will say that 1 in 5 have industry potential. We need to work together to improve that ratio. Please feel free to contact me. A business and is enclosed.

The UCF civil program is very strong. I would recommend that more effort be placed in engineering CADDD and less in other areas such as electrical, materials, process design, advanced physics II. These areas in no way assist in civil engineering. I would have rather had more design classes that better prepare me for the real world challenges. Overall, my preparation at UCF has excelled me to a high paying very rewarding career as a consultant. I would also like to see the program be more flexible in that one should be able to tailor their classes toward their interests more. Not in just what 2 design classes do you want to take. Every student should also do at least a 6-month co-op for graduation. It will make them a better engineer and understand what to expect after graduation.

More time should be spent on the methodology of dealing with permitting agencies, their personnel and codes. Nearly half of my fee is applied toward permitting and I had to learn this process and its quirks by myself.

When I was there the availability of classes was limited. Continue to ensure upper level classes use real world applications. Utilizing professionals in fields for design classes was beneficial. Using “real” projects would also be helpful.

Internships – we are always seeking new interns. Excellent program overall – Good job.

Provide students with the software that companies are using in the real world such as micro station and geopak.

Keep up the good work.

Courses gave technical info on hydraulics, hydrology, geotechnical, etc. but did not provide enough background on how the technical aspects are used in the design process for land development. Strong technical education, just need to tie it into real world design needs. Professor Leftwich’s transportation course was the closest to real world design and application.

I think UCF needs to add a class for civil students that touch on the basics of using micro station and AutoCAD. They should also add a class to the curriculum for the students to learn basic management.

UCF computer experience was DOS based FORTRAN programming that had no applications in my career. Communication skills were developed with BA in Journalism ('83). Project management skills were learned in post degree professional development (courses, seminars & on-the-job training).

The civil program did not have a survey class available at the time of my enrollment. This class is extremely important to my field and I had to learn on my own. I believe this is now a requirement for civil, if not it should be incorporated.

I'm happy with the growth and success of the campus. Go UCF!!

UCF engineering program is an excellent program…changed my life.

Given the types of real world jobs out there, I feel UCF should have more survey and transportation classes offered/required. This sector of the market is way under represented at UCF.

The University of Central Florida is a very good and progressive school for the future and preparation for the future my time there was good.

Full time graduate school should revert back to 6 semester hours instead of the current 9 semester hours. It is impossible for the working engineer to qualify for many graduate programs due to the hourly requirements. I would be half way through a structural engineering masters program with a full scholarship if 6 hours constituted full time study!

I have worked alongside other engineers from larger colleges and I know that UCF has provided me at least an equal education. Educationally UCF is equal to many of the large colleges.

We have many UCF graduates working in our agency and as consultants. They are top notch and committed to excellence.

I understand the program has improved and grown greatly since I graduated in '85.

I require simple surveying skills and good CADD skills of my new employees. EIs from Florida schools are typically weak in these areas. Courses in these areas would be very beneficial to the graduates seeking entry-level employment.

Excellent!

Great program. Students could benefit from technical writing and management class work but not all engineers are managers. Also much could have changed in your programs since I graduated.

I believe my education at UCF prepared me very well to be a practicing engineer. I have always felt competent and confident in my ability to work beside my colleagues.

I feel the civil department should establish a land surveying degree/discipline.

Since senior design courses are the only courses, which expose students to real world design, many more options should not only be offered, but also required! Everything else should be secondary by the 4th year.

As an owner of a structural consulting firm, I interview prospective employees and evaluate their performance once hired. UCF graduates consistently out-perform other university graduates from schools such as UF and MIT.

More practical courses such as construction and construction management should be a requisite in the curriculum. Also more courses on how to use standards and building codes to do design, etc. Most things were very theoretical except for steel and concrete – need a good balance both with theory and practice. Also managerial courses were lacking. Strategic planning and basic finance skills and project management, etc. are extremely important (as well as communication skills) for alumni to climb up the ladder and give UCF a strong name through leadership positions in engineering and construction firms.

Keep Dr. Chopra. Incorporate AutoCAD as part of curriculum.

Suggest offer a course on "communications for the engineering professional" in my opinion, this course is essential for career advancement opportunities. Go KNIGHTS!

The engineering program still lacks teaching crucial business skills needed in the real world. I realize that there is no room for extra classes but I am just expressing where the program is in need.

Very weak support system from faculty in 1995. Not many group and tutorial organizations for studying habits.

Look into continuing education programs for engineers looking to "re-invent" themselves (management, etc.) or simply update their qualifications – computer aided design, etc. program certificate of "MBA for Engineers."

Researching information is a large part of engineering along with reading and creating construction plans. It would be great to offer an elective that introduces the students to what they will be seeing in the work force.

I transfer to UCF from UM (College Park, MD) and loss several credits. These credits were elective not part of my engineering program but I had to pay and take new elective courses. Why? $

I have had opportunity to hire new graduates from UCF. In general, they have poor communication skills but are otherwise technically competent.

Since 1980, I am sure things has gotten better @ UCF. My "N" answers reflect the 1980 period.

Still working on MS Degree.

Getting students into part-time internships (with a decent wage) should be a big priority for UCF. Graduating with little or no experience is an enormous disadvantage. Real world practical experience should be a requirement of graduation. The 10-acre site development project in "Water Resources" had little to do with reality. I was not permitted to use 24" x 36" sheets, but only 8½ " x 11", and I had a job where I could have more easily produced 24" x 36". All said, upon my graduation, I was only qualified to be a CAD tech, but I was expected to show up with design skills I had never been taught. Civil majors should take field trips to more construction sites, and be taught to read construction plans.

The overall education & general knowledge was sufficient. However, in the BS program there were not enough real world situations.

Civil Engineering curriculum should include AutoCAD classes, especially for students who would like to pursue the structural field. AutoCAD allows student to attain entry level jobs while in school, thus solidifying an even strong relationship between UCF's Engineering College and Orlando's Engineering community!

My overall experience at UCF was highly challenging and greatly rewarding; and therefore I have no comments or suggestions that I feel would better the engineering program at this time.

More real world project & examples should be used in class. Also software that are being currently used by consultants and FDOT should be taught @ UCF. Also writing or tech writing should be a part of the engineering program.

Dr. Chopra was an excellent professor. I feel I learned more from his classes than others. He knows how to communicate his knowledge to others well. I believe that this quality was most appreciated by me and my peers at the time. In conclusion I believe that my experience at UCF would have been more positive if I had a greater number of professors with this quality.

I believe if the program could involve students more with AutoCAD it would be of great benefit to the student after graduation. More emphasis on technical writing would be helpful as well. Overall, I feel that the program is doing a great job for the enrolled students and UCF as a whole. Keep up the good work Chopra!

Great program!

At the time I was at UCF CADD/Drafting and Surveying were not required, they should be. Student s did very little, if any, technical oral presentations, this skill is required in “real world.”

Library and lab facilities were inadequate for engineering students.

Maintain the current quality.

I would put my education @ UCF up against any school. I’m very happy with what I learned @ UCF.

I highly recommend a surveying class be required for the CE program (to cover both land and construction surveying) essential subject for this profession. A course that “basically” covers the business aspect of the consulting and state/federal industries. Perhaps a subject matter that can be added to the management course. (To give the student a feel of how the “real world” works.) The above subject matter was not included while I attended UCF. If they are currently required, good job! Otherwise the CE program was highly effective in my development.

One thing that I have found out that UCF did not offer while I was there was more practical design related classes. Particularly relating to transportation. I work in transportation design and I did not have any classes that utilized microstation or geopak, two of the most widely used tools of my trade. I know that schools such as UF and GaTech are already doing so. Transportation is a growing field, particularly in Florida, and I think that UCF could do a lot in offering more classes geared toward transportation design.

UCF has a fantastic engineering program and I feel it has benefited me greatly in entering the professional society.

I feel there should be a separate design course (elective) specifically for computer modeling with commercial software. Typical design courses should be required for these classes as prereqs.

Need increased emphasis on surveying/site/construction/development topics. Very few young engineers know how a project transitions from design phase to construction. Very few young engineers know how to calculate basic earthwork estimates or communicate intelligently with survey or construction crew.

Add as a requirement, survey, leadership, management, and people skills.

The program is great. The faculty was very helpful and understanding.

A CADD class needs to be included in the program. It is an essential skill that is currently not covered adequately in design classes and puts UCF at a disadvantage to UF students.

You need to take into account offering courses in computer such as CADD. Many courses require the knowledge of AutoCAD, yet it is not offered @ UCF. The computer labs should be better equipped with both supplies and staff – other departments at UCF are well above the engineering department. Students should be encouraged to participate in professional societies – maybe run a campaign with booths or something. Laboratory equipment needs to be updated – you go to school and learn how to use archaic equipment and when you get to your job, you don’t have a clue on how to use all the “high tech” stuff (examples – surveying lab, geotech lab).

The engineering program at UCF was outstanding. I already had a job lined up as I was on an AFROTC scholarship. In 1982 when I graduated, PCs obviously were not commonplace so the program really didn't develop my computer skills. I had to learn "on-the-job" as technology improved through the years.

Overall the experience at UCF was a great one. One of the misses of the CE program is a required CADD class.

I would recommend a little more ACAD in the curriculum. Maybe a class where students produce a full set of site development plans (roadways, storm water, sewer, potable water dist sys, grading with details, x-secs and std munic details for all of this) I think this would tie a lot of things together for the students.

Based on discussion with more recent experiences at UCF, aspects of the program that I thought were weak, especially professional society involvement at the student level, have improved.

Additional study in the field of code interpretation and use would be helpful for young civil engineers.

AutoCAD and total station survey equipment is a must.

Enjoyed my time @ UCF and it really helped me out.

Clear articulation of the English language – requirement of "ALL" faculty and graduate teaching assistants. Limit class sizes to maximum of 40 students. Restrict teaching to PhD faculty and adjunct faculty. Pay adjunct faculty at same rate of pay as Asst. Professor.

I think that UCF placed emphasis on real work applications of civil engineering. Because of this, I felt I had an advantage over those who spent too much time simply deriving equations at other universities. Sixteen years later, I still find that graduates in the Tampa area still do not get any real work knowledge. I hope UCF has not changed their philosophy. My thanks go to Dr. Wanielista, Dr. Harper, Dr. Leftwich and Dr. Kuo – they are the reason why my professional career has gone so well.

My program had too many non-engineering courses that were a waste of time. More coursework should have been allowed in engineering or computer fields.

The only drawback I experienced was the lack of recruiting activity for civil/structures/construction. This may have improved since 1980.

Sanitary wastewater gravity systems needed to be covered better. Drainage various drainage systems needed to be covered better.

Technical communications is an important area that could receive additional emphasis to improve the program. Overall, I am extremely satisfied with the skills I gained in UCF's Civil program.

More emphasis needs to be placed on the variety of computer programs that are used commonly in civil engineering (i.e. land development desktop, civil design, geopak, adicpr, etc.). There are also many sources of information that I was not aware of until I started my career. Such as ready-maps, usgs website, water management district websites. If some of these resources were introduced during my education I would have been much more ready for my career as a civil engineer.

Make autcadd a mandatory course for all CEE students. Those are the skills I was lacking the most as I entered the profession of land development. General working knowledge to do simple redlines is imperative.
Credits fro summer interning at engineering firms would be a good method of giving students on the job exposure and training.

Dr. Chopra is an excellent teacher and I'm positive that the CE program will improve under his direction.

Even while pursuing an MS (with specialty in water resources) I was forced to take what I thought was an unusually high number of "other" courses (i.e. structural, traffic) and spend untold hours on the theory and minute details of

subjects, which did not interest me and for which I have never had a use. Perhaps it is different now but allow people to specialize for goodness sakes! Good luck.

Encourage students to get involved with a student professional organization. It made all the difference in my enjoyment of UCF.

Increase emphasis on internships for junior/senior level students. I believe many students I have interviewed truly understand the variety of fields available to civil grads.

More support & flexible schedules for part-time (working) students.

The department should do research on what classes are pertinent for their discipline. Classes that teach autocadd and surveying were not offered or not required when I graduated. If I had taken these classes, it would have been much easier to find a job.

Continued success for my favorite school. You guys are the best.

I appreciate the opportunity to comment on my educational experience at UCF and specifically the CEE office. The CEE program has advanced quickly in a relatively short time since my graduation. UCF possesses a dedicated staff and delivers a quality education. I look forward to working with future civil engineering graduates and the continued growth of the CEE program at UCF.

I appreciate your efforts to improve the quality of the educational experience at UCF CEE. Good luck.

The Civil Engineering department should make a surveying and an autocad course a prerequisite for graduation (if it hasn't already).

Strongly encourage students to serve internships at local firms and/or public agencies.

UCF was and is a great engineering school.

APPENDIX C

ENVIRONMENTAL ENGINEERING RESULTS

UCF Environmental Engineering
ALUMNI SURVEY 2002

		%	Cases
Degree Level	Bachelor's Degree	86.8%	158
	Master's Degree	30.8%	56
	Doctorate	2.2%	4
Total		119.8%	182

UCF Environmental Engineering
ALUMNI SURVEY 2002

		%	Cases
Year Graduated	1970-1979	21.1%	38
	1980-1989	17.2%	31
	1990-1994	27.8%	50
	1995-1999	46.1%	83
	2000-2002	8.9%	16
Total		121.1%	180

UCF Environmental Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
In general, how would you rate your overall experience in the UCF Civil and Environmental Engineering program?	1 Poor	1.1%	2
	2 Fair	1.1%	2
	3 Good	11.5%	21
	4 Very Good	45.4%	83
	5 Excellent	41.0%	75
Total		100.0%	183

UCF Environmental Engineering
ALUMNI SURVEY 2002

	Total	
	Mean	Count
In general, how would you rate your overall experience i the UCF Civil and Environmental Engineering program	4.2	183

UCF Environmental Engineering
ALUMNI SURVEY 2002

		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	Total
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	Count	1	3	6	97	75	182
I feel that my academic preparation was as good or better than that of my colleagues from other sch	Count	1	3	28	83	68	183
I feel that attending UCF helped/will help me get my initial job.	Count	2	9	36	69	65	181
I feel that attending UCF has helped/will help me advance in my job.	Count	1	10	52	77	42	182
In general, the program faculty seemed highly qualified.	Count			8	88	87	183
The program developed my technical engineering skills.	Count		1	12	86	83	182
The program developed my computer skills.	Count	3	15	47	71	47	183
The program developed my ability to locate information I would need to do my job.	Count	1	12	32	91	47	183
The program developed my ability to solve real-world problems.	Count	2	6	23	101	51	183
The program developed my communication skills.	Count	6	18	47	82	30	183
The program developed my managerial skills.	Count	7	29	77	58	12	183
I often refer to my textbooks and/or other resources obtained while at UCF.	Count	6	15	39	80	43	183

UCF Environmental Engineering
ALUMNI SURVEY 2002

		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	Total
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	%	.5%	1.6%	3.3%	53.3%	41.2%	100.0%
I feel that my academic preparation was as good or better than that of my colleagues from other sc	%	.5%	1.6%	15.3%	45.4%	37.2%	100.0%
I feel that attending UCF helped/will help me get my initial job.	%	1.1%	5.0%	19.9%	38.1%	35.9%	100.0%
I feel that attending UCF has helped/will help me advance in my job.	%	.5%	5.5%	28.6%	42.3%	23.1%	100.0%
In general, the program faculty seemed highly qualified.	%			4.4%	48.1%	47.5%	100.0%
The program developed my technical engineering skills.	%		.5%	6.6%	47.3%	45.6%	100.0%
The program developed my computer skills.	%	1.6%	8.2%	25.7%	38.8%	25.7%	100.0%
The program developed my ability to locate information I would need to do my job.	%	.5%	6.6%	17.5%	49.7%	25.7%	100.0%
The program developed my ability to solve real-world problems.	%	1.1%	3.3%	12.6%	55.2%	27.9%	100.0%
The program developed my communication skills.	%	3.3%	9.8%	25.7%	44.8%	16.4%	100.0%
The program developed my managerial skills.	%	3.8%	15.8%	42.1%	31.7%	6.6%	100.0%
I often refer to my textbooks and/or other resources obtained while at UCF.	%	3.3%	8.2%	21.3%	43.7%	23.5%	100.0%

UCF Environmental Engineering
ALUMNI SURVEY 2002

	Total	
	Mean	Count
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	4.3	182
I feel that my academic preparation was as good or better than that of my colleagues from other sch	4.2	183
I feel that attending UCF helped/will help me get my initial job.	4.0	181
I feel that attending UCF has helped/will help me advance in my job.	3.8	182
In general, the program faculty seemed highly qualified.	4.4	183
The program developed my technical engineering skills.	4.4	182
The program developed my computer skills.	3.8	183
The program developed my ability to locate information I would need to do my job.	3.9	183
The program developed my ability to solve real-world problems.	4.1	183
The program developed my communication skills.	3.6	183
The program developed my managerial skills.	3.2	183
I often refer to my textbooks and/or other resources obtained while at UCF.	3.8	183

UCF Environmental Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
Are you a registered Professional Engineer (P.E.)?	Yes	52.5%	95
	No	47.5%	86
Total		100.0%	181

UCF Environmental Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
If not, do you plan to obtain your P.E.?	Yes	72.1%	62
	No	27.9%	24
Total		100.0%	86

UCF Environmental Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
Do you regularly participate in a professional society?	Yes	53.9%	96
	No	46.1%	82
Total		100.0%	178

UCF Environmental Engineering
ALUMNI SURVEY 2002

		%	Count
If currently employed, in which sector?	Not currently employed	3.3%	6
	Consulting	50.3%	91
	Industry	7.7%	14
	State or Federal regulatory agency	13.3%	24
	Non-regulatory governmental (local, state, or federal	17.7%	32
	Academic	2.8%	5
	Research	1.7%	3
	Other sector	6.1%	11
Total		102.8%	181

UCF Environmental Engineering
ALUMNI SURVEY 2002

		%	Count
If currently employed, in which field?	Not currently employed	3.4%	6
	Water/Wastewater	44.1%	78
	Air	9.0%	16
	Water Resources	24.9%	44
	Structures	1.1%	2
	Solid Waste	6.2%	11
	Transportation	8.5%	15
	Geotech	1.7%	3
	Regulatory	6.2%	11
	Non-engineering	2.8%	5
	Other field	25.4%	45
Total		133.3%	177

Environmental Engineering Survey Additional Comments

UCF has a great program. I really enjoyed my academic career at UCF. The program has come a long way since I've been there and degree goes up in stock every year. Keep up the good work.

As a consulting engineer, I wear many hats…engineer, salesman, accountant, personnel manager, project manager…etc. Some stronger emphasis on the non-technical aspects of engineering business would be helpful.

I believe more undergraduate work in environmental assessment and remediation would be helpful.

I found most instructors not accessible. Although many seemed competent in their field few were able to relay the material to the students. I could list several instructors with poor attitudes toward teaching and more interested in their own agenda leaving students success as second priority.

Provide extra classes on technical writing and the use of freelance and PowerPoint for presentations. Also classes on how to give presentations.

Plan more trips in the field to show students how their calculations and applications in the classroom are reflected in real development or design situations.

UCF is a great school with a very promising future.

UCF is a unique institution that prepares students well for the real world.

I feel the master program was very beneficial to my advancement in the engineering profession. The faculty was very helpful especially Dr. Dietz.

A lift station class similar to the one at the University of Florida would be a huge asset to anyone going into the water/wastewater field.

I strongly recommend the co-op positions UCF offers. My internship was extremely beneficial and helpful in obtaining my present employment.

I feel that the curriculum needs to include basic survey, basic computer, plans preparation and construction influences. I also feel that there is a high student: professor ratio at the college and needs to be significantly reduced. Research is a large part of the professors job/agendas – this should not overshadow the needs for the students to obtain a good or the best education at UCF.

The program is strong technically. The program is weak in preparing the student for project management or people management. There was no explanation of overall engineering environment (i.e. how consultants work with clients or cities). The program created great grad students.

I feel that the program needs to expand on preparing students for real world situations in the business world and not simply the technical side.

I may be able to provide more helpful comments after several years in industry or other position outside the university.

The UCF Civil and Environmental Engineering program is excellent. I recommend the program to all who are interested.

Require professors to have real world work experience.

Great program!

Software and computer skills have become such a huge part of the industry. I recommend students get exposed to perhaps a storm water model (SWM) or a wastewater model (H2O Net) or GIS or even a Microsoft Access Database. These are skills that can be learned on the job but it would be highly beneficial to a future UCF engineer if he/she already had some exposure. When I first graduated from UF I was repeatedly asked about my computer skills.

More pumping station design experience – not just pump hydraulics. More "semester" projects where an existing water or wastewater facility must be expanded – and the requirement to come up with not only an organized design notebook – but specs, vendor cut sheets, preliminary layout drawings or sketches, and a cost estimate. Also a segment on common problems of water or wastewater treatment plants and solution alternatives would help. I'm sure things have changed somewhat since 1990-1991. Some or all of my suggestions may have already been incorporated.

Fire all professors over 50! The professors as a whole have no idea how to teach. They as a whole, are woefully socially challenged, have no idea what's going on in the real world, and are simply arrogant drones. I learned practically nothing useful. My success in life comes from mastering social skills in kindergarten, which is probably why I earn more and enjoy life more than the useless hothouse academes at UCF. The technical shit required by all the useless classes forced on engineering students is clearly nothing more than farcical, fraudulent revenuing.

I resigned to stay at home with my son. I plan on returning to work soon.

I feel I received a well-rounded sound engineering education at UCF. I have not experienced being at a disadvantage in comparison to graduates of more recognized schools in my career.

I am pursuing my masters online in environmental management due to location (California). My husband took a course for his masters in electrical engineering through UCF. He transferred it to Cal State upon moving. His undergrad is from the AF Academy. He liked the grad course he took through UCF. He felt that the teacher for Expert Systems & Knowledge Engineering did the best job of instructing for extended learning that he has had so far – he graduates with his masters this semester. Dr. Chopra in particular, I know your teaching/tutoring was among the best. Thank you.

Although I haven't returned to the campus often, I do often run into UCF graduates in Naples – with an excellent opinion of the university. You have built up an exemplary reputation.

The CEE professors that I interacted with were very friendly and nurturing. I also believe that their practical orientation provided a solid foundation for entering the professional services.

My unemployment is no reflection of my quality of education. After the birth of my second child, I decided to stay home to raise my children. I have always felt my education at UC was exceptional and refer younger people to the program.

I feel that I was well prepared to enter the engineering profession upon completion of my BS from UCF. Great program – I highly recommend it to anyone considering Civil/Environmental Engineering.

UCF has an excellent Environmental Engineering program!

Simply – I will hire UCF grads over all others. They are more prepared & well rounded.

Suggest incorporating field labs into senior level classes. Go to treatment plants, visit consulting firms, expose the students to the practical application of what they are learning.

Need more programs related to real work other than just academics. For example, there are no classes on preparing drawings, specifications, permits, detailed design reports, etc.

I feel the education I received in the college of engineering taught me valuable problem-solving skills that I have applied throughout my post-college career.

The professors in the Environmental graduate studies department, esp. Drs. Randall, Taylor, Cooper, Reinhart are fair, informative and caring in their approach to teaching. However, I do not believe Dr. Nnadi possesses these traits.

Excellent school – I recommend it to my students all the time – keep up the good work!

I suggest that UCF permits the option of performing paid or unpaid internships in lieu of 3 and 4 credit hour labs. I believe there is so much more for students to learn from peers already working in their fields of interest.

I received a very good foundation in engineering knowledge and skills at UCF (FTU). However, building on that foundation at graduate school (MSCE) at Purdue is what really prepared me for my career and qualified me for my position at DuPont.

Based upon my experiences in the petrochemical industry, I feel I received an excellent education in Environmental Engineering from UCF. I have been at a decided advantage throughout my career over the majority of my peers, due to the specialized education I received from UCF. The Environmental field is much more abstract than the traditional engineering disciplines and also fairly new. Consequently, the majority of my peers did not receive a comparable education to mine and have been at a decided disadvantage. I am currently working at a petrochemical plant as a compliance engineer. I deal with multimedia issues at my job, air, water, wastewater, and waste, although I specialize in air compliance. The diversity of the course material offered in the undergraduate degree program at UCF has left me well equipped to competently deal with the gamut of issues I am confronted with on a daily basis. More specifically, the undergraduate Air Pollution Control course and Air Pollution Senior Design course have provided me a distinct advantage at work. I am often referring to Dr. Cooper's text. The laboratory assignments in both Biological and Chemical Process Control have given me a sufficient background to ensure that the water and wastewater sampling is done correctly throughout the plant utilizing the appropriate sampling protocol. Unit Process Control gave me enough practical knowledge to trouble shoot operational problems with the plant wastewater treatment system. My participation in senior design projects cultivated my organizational and managerial skills and gave me the confidence to work both independently to solve issues, as well as in a team.

My responses should be tempered with the knowledge that after graduating, I almost immediately got into software engineering in the communications area. Other than the programming skills that I picked up and the electronics courses in the core curriculum, I didn't use the knowledge gained in the Environmental Engineering program.

UCF has an excellent masters program for environmental engineering. I have recommended the program numerous times.

The construction-engineering program needs a master's program. Civil/Environmental engineering students should learn how to read plans and blueprints. Chemical engineering program should be introduced into UCF engineering program. Civil/Environmental computer lab should be equipped with modern computers.

I was pursuing a successful career until I decided to become a full-time home mother now my UCF problem solving skills are applied to children and their homework and to running a household in an environmentally responsible way.

One of the core (required) courses is taught by a faculty member that is abusive to students. The instructor also does not impart much information, but rather is vague and unhelpful. This issue was raised on many occasions by students. It's a mar on the program.

At the time I attended, I did not take full advantage of the technical writing course; therefore, I did not get that much out of it. I would suggest strongly emphasizing good writing and communications skills, as they are probably more important than many students realize.

The applied research program, specifically that of Dr. J.S. Taylor's Environmental Systems Engineering Institute and the Priority Pollutants Laboratory, was key to my success in consulting engineering. Currently I have achieved international recognition for work performed since leaving (graduating) from the university. Much of my success can be tied to my education experiences both in the industrial chemistry program and the environmental engineering program.

I have not been in touch with UCF engineering since graduation. I do not currently know what changes have taken place or are in the works. An alumni newsletter from UCF engineering would be nice.

It is not a high quality education for a low cost if you want it to be that then get the professors out of the research sector and into teaching.

The program is very strong in its technical preparation however a stronger placement to internships would give students more hands on experience.

Go KNIGHTS!

The design project in water resource management for habitat for humanity in 1992 was the most useful design project and got me my first job. More real life projects would help.

Overall program is very good. Option courses in Environmental Science would add value.

Employees in CEE office very helpful, especially near graduation. Many teachers very qualified (Cooper, Wayson, Chopra) while some not very good at conveying information (Taylor). Working for UCF was best decision I ever made. Academic program helpful in passing EI.

I think UCF engineering needs to have more instructors/professors that have worked in the “real” world, so their teaching relates more to what you might do after graduating. I had some instructors like that, but others were strictly “textbook” teachers.

It would have been beneficial to have a class that involved remediation and technologies involved instead of only water/wastewater courses in the undergraduate program.

Encourage alumni to stay involved with program such as an advisor for the college or as an adjunct professor. Would also encourage professors to keep in touch with students.

I think the program could benefit from a class to educate students on field sampling methodologies and site investigation procedures.

Engineers, especially those going into private practice, need good management and business management/entrepreneurial skills.

The FTU curriculum seems to have been more general (in engineering) than my colleagues. Even though I never got a graduate degree, this has been helpful to me as I understand better others’ fields, like electrical, instrumentation, and structural.

Attended UCF through the FEEDS program. All classes were taken via video. Only visited campus twice so not familiar with facilities. Recommend continuing with FEEDS program.

Overall a good program – especially with satellite centers located around central Florida for employed persons. Department could consider expansion to include construction engineering for the present day needs. And/or offer ability to obtain contractor’s license. Keep moving ahead. Keep the standards and keep the satellite programs alive for persons who are employed this offers an excellent program to work and advance.

I think it would be helpful to give students some exposure to writing proposals or requests for proposals. Whether working in the public or private sector, many engineers will find the need to be familiar with these types of documents.

Groundwater hydrology is still a terrible class in which I am learning nothing.

Excellent job. Keep it up.

Excellent school; my only regret was that surveying wasn't available when I attended (it was FTU back then, before the name change).

UCF has a fine program. I have watched the program grow and evolve and improve over the past 14 years. Our workplace periodically hires UCF engineering (civil/environmental) students and they are excellent.

I am very proud to be a FTU grad and I relish informing colleagues that the UCF engineering college is second in size and first in quality in the state.

I understand that sitting for the professional registration exam is required for a diploma. I'm glad and wish the requirement had existed in my time. I would've succeeded better in my field with that push, maybe would've become a PE. My participation in classes and professional organizations while at FTU did not match the real world that I found in the consulting firms and then the state government. The professional organizations that I served long and hard did not much recognize non-PEs. Schools can't prepare us for everything but more realism would seem warranted, if it hasn't been added over the years. A goal of passing everyone versus grading on a bell curve might be a smart idea too. Learning is the goal.

The education that I received at UCF has prepared me very well for a career in engineering. The level of education that I received (BS) seems to match what others get when they get BS & MS degrees at other universities (Ivy League included). I owe UCF a big thank you for preparing me so well.

I think the one experience I missed out on at UCF was working as an intern or co-op. I would like to see that program more developed and strongly encouraged.

APPENDIX D

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		%	Cases
Degree Level	Bachelor's Degree	91.5%	410
	Master's Degree	20.1%	90
	Doctorate	1.6%	7
Total		113.2%	448

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		%	Cases
Year Graduated	1970-1979	13.1%	58
	1980-1989	23.9%	106
	1990-1994	23.9%	106
	1995-1999	42.9%	190
	2000-2002	9.9%	44
Total		113.8%	443

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
In general, how would you rate your overall experience in the UCF Civil and Environmental Engineering program?	1 Poor	.9%	4
	2 Fair	1.8%	8
	3 Good	10.4%	47
	4 Very Good	55.4%	250
	5 Excellent	31.5%	142
Total		100.0%	451

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

	Total	
	Mean	Count
In general, how would you rate your overall experience i the UCF Civil and Environmental Engineering program	4.1	451

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	Total
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	Count	1	5	16	252	176	450
I feel that my academic preparation was as good or better than that of my colleagues from other scl	Count	1	12	68	211	159	451
I feel that attending UCF helped/will help me get my initial job.	Count	8	15	96	158	169	446
I feel that attending UCF has helped/will help me advance in my job.	Count	3	21	127	185	112	448
In general, the program faculty seemed highly qualified.	Count	1	3	16	245	186	451
The program developed my technical engineering skills.	Count		2	26	243	178	449
The program developed my computer skills.	Count	7	43	122	195	81	448
The program developed my ability to locate information I would need to do my job.	Count	4	18	83	235	110	450
The program developed my ability to solve real-world problems.	Count	5	16	60	244	126	451
The program developed my communication skills.	Count	11	38	122	208	72	451
The program developed my managerial skills.	Count	12	71	189	144	34	450
I often refer to my textbooks and/or other resources obtained while at UCF.	Count	10	35	92	218	96	451

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree	Total
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	%	.2%	1.1%	3.6%	56.0%	39.1%	100.0%
I feel that my academic preparation was as good or better than that of my colleagues from other sch	%	.2%	2.7%	15.1%	46.8%	35.3%	100.0%
I feel that attending UCF helped/will help me get my initial job.	%	1.8%	3.4%	21.5%	35.4%	37.9%	100.0%
I feel that attending UCF has helped/will help me advance in my job.	%	.7%	4.7%	28.3%	41.3%	25.0%	100.0%
In general, the program faculty seemed highly qualified.	%	.2%	.7%	3.5%	54.3%	41.2%	100.0%
The program developed my technical engineering skills.	%		.4%	5.8%	54.1%	39.6%	100.0%
The program developed my computer skills.	%	1.6%	9.6%	27.2%	43.5%	18.1%	100.0%
The program developed my ability to locate information I would need to do my job.	%	.9%	4.0%	18.4%	52.2%	24.4%	100.0%
The program developed my ability to solve real-world problems.	%	1.1%	3.5%	13.3%	54.1%	27.9%	100.0%
The program developed my communication skills.	%	2.4%	8.4%	27.1%	46.1%	16.0%	100.0%
The program developed my managerial skills.	%	2.7%	15.8%	42.0%	32.0%	7.6%	100.0%
I often refer to my textbooks and/or other resources obtained while at UCF.	%	2.2%	7.8%	20.4%	48.3%	21.3%	100.0%

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

	Total	
	Mean	Count
The program provided me with adequate knowledge and skills to succeed in my chosen profession.	4.3	450
I feel that my academic preparation was as good or better than that of my colleagues from other sch	4.1	451
I feel that attending UCF helped/will help me get my initial job.	4.0	446
I feel that attending UCF has helped/will help me advance in my job.	3.9	448
In general, the program faculty seemed highly qualified.	4.4	451
The program developed my technical engineering skills.	4.3	449
The program developed my computer skills.	3.7	448
The program developed my ability to locate information I would need to do my job.	4.0	450
The program developed my ability to solve real-world problems.	4.0	451
The program developed my communication skills.	3.6	451
The program developed my managerial skills.	3.3	450
I often refer to my textbooks and/or other resources obtained while at UCF.	3.8	451

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
Are you a registered Professional Engineer (P.E.)?	Yes	53.5%	240
	No	46.5%	209
Total		100.0%	449

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
If not, do you plan to obtain your P.E.?	Yes	77.9%	162
	No	22.1%	46
Total		100.0%	208

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		Total	
		%	Count
Do you regularly participate in a professional society?	Yes	55.4%	246
	No	44.6%	198
Total		100.0%	444

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		%	Count
If currently employed, in which sector?	Not currently employed	2.2%	10
	Consulting	59.5%	267
	Industry	7.8%	35
	State or Federal regulatory agency	11.1%	50
	Non-regulatory governmental (local, state, or federal)	12.5%	56
	Academic	1.8%	8
	Research	1.6%	7
	Other sector	5.3%	24
Total		101.8%	449

UCF Civil & Environmental Engineering
ALUMNI SURVEY 2002

		%	Count
If currently employed, in which field?	Not currently employed	2.3%	10
	Water/Wastewater	26.1%	115
	Air	3.6%	16
	Water Resources	22.7%	100
	Structures	11.8%	52
	Solid Waste	3.4%	15
	Transportation	23.4%	103
	Geotech	4.8%	21
	Regulatory	3.9%	17
	Non-engineering	1.8%	8
	Other field	26.8%	118
Total		130.4%	441

Undeclared Major Survey Additional Comments

UCF is a great school with a great faculty and program.

Need to add surveying to civil engineering program.

A class in Micro station or AutoCAD must be included in the civil engineering program.

I'm sure much has changed, as improvements, since my graduation. The program greatly improved my skills for opportunity in obtaining advanced degree.

Real world experiences are important to the student engineer. Therefore, I suggest you hold an "engineering day" where one of the activities would be small student group discussion with accomplished alumni.

Actual job experience obtained through all these years really more helpful than academic/technical learning from school in solving daily problems.