



2011

Civil Engineering Technology-
Construction Management Major
Assessment and Strategic Plan



Civil Engineering Technology
Department
Construction Management
Major

2011 Assessment and Strategic
Plan

Table of Contents

Forward.....	4
Mission, Objectives, and Outcomes.....	5
CETC Assessment Program	8
CETC Assessment Results.....	13
CETC Program Outcome Reports	14
CETC Program Objective Reports.....	26
CETC Preparedness Results.....	30
CETC Co-op Employer Survey Results – Program Outcomes	31
CETC Graduating Student Survey Results	34
CETC Curriculum Change Feedback Results.....	42
CETC Graduate Profile	43
NKU Letter – Success of CETC Graduates.....	44
CET Advisory Board Minutes.....	45
CETC Strategic Plan	55

Forward

In September 1968, the Civil Engineering Technology (CET) program was established to address several interrelated needs within the Greater Cincinnati community. The CET program responded to the demand for technically competent and qualified technicians to assist professional engineers from local firms and agencies engaged in civil engineering work. While satisfying industry's need for a technologically proficient workforce, the CET program concurrently provided a specialized educational pathway for area high school graduates at the associate degree level.

The Construction Management Major of the Civil Engineering Technology Department is designed to complement the other CET majors and offer Greater Cincinnati students an excellent educational pathway in the field. The academic improvement plan herein will identify the process used for the continuous improvement of the CETC major. The plan identifies competencies needed by the student who is preparing to enter the civil/AEC industry and then quantifies the ability of the CET program to deliver the necessary educational environment such that these competencies are met.

This *2011 Assessment and Strategic Plan* is a revision of the original assessment plan created in 2001 and revised in 2004. This plan forms the basis for assessing the stated outcomes of the Construction management Major based on input from relevant constituencies. The plan obtains this input in a cyclical manner, evaluates this data relative to stated outcomes, develops conclusions and, where appropriate, initiates curricular modifications. This year the plan includes a strategic plan which evaluates the strengths, weaknesses, opportunities, and threats facing the program as we move forward into the next decade.

The results from this plan's implementation foster accountability by the CETC major to the college, the industry, and the public at large.

Assessment and Strategic Plan Construction Management Major 2011

I. MISSION, OBJECTIVES, AND OUTCOMES

College Mission

We believe that Cincinnati State Technical and Community College makes an important contribution to the technical and educational status, economic growth, and social well-being of the Tri-State Area. We believe that to continue to serve the community the College must be willing to modify, adapt, and create technical and transfer programs that meet the ever-changing needs of students, business, industry and the professional community. We believe that it is the College's role to help students to learn to think independently, to value logical and tested conclusions, to develop problem solving abilities, to communicate well, and to function effectively with other people. We believe in the dignity and worth of the individual and therefore provide educational opportunities for students regardless of age, economic or social background, or enrollment status. We believe that for continued growth we must display the ability to be creative, to look to the future as well as the past, to strive for excellence, and to exhibit leadership in the expansion of knowledge and skills through the achievements of the faculty and the students. We hope to develop in our students the desire to continue their education throughout their lives. The College's principal concern is its students. This concern is reflected primarily through offering programs of substantial quality with the expectation that students will achieve a high level of competence and understanding in an atmosphere of positive engagement and mutual respect. In order to maintain this atmosphere, the College offers opportunities for students to achieve understanding and appreciation of their own culture and those of others in an environment that recognizes and values the cultural diversity of the College population and the community.

The College has a vital and distinctive mission to perform in addressing the educational and economic needs of the Tri-State Area. The College seeks to implement its philosophy by providing:

- A. Education featuring a combination of theory and practice primarily through appropriate classroom, laboratory, and cooperative/clinical education experiences.
- B. Technical, Arts, and Science Associate degree programs that lead to entry or advanced level employment and/or transfer to a Bachelor's degree program.
- C. Certificate programs, specialized training, and adult continuing education opportunities of less than one-year duration.
- D. Services and educational experience to assist students in determining and reaching their educational objectives.
- E. Opportunities for students to develop the skills needed to enter and succeed in the College's education programs.

F. Technical, science, arts, and general education courses that can be applied toward four-year degree programs.

The College endeavors to provide leadership and services in the promotion of technical, arts, science, and cooperative education.

II. CETC Mission and Educational Objectives: The mission of the Civil Engineering Technology's Construction Management major at Cincinnati State Technical and Community College (CSTCC) is to develop technically competent and professional graduates for successful careers within the construction profession. The primary objective of the CETC major is to provide the community with a qualified graduate that possesses a broad understanding of basic technical fundamentals coupled with the knowledge of the most current advancements in the profession. A second objective of the CETC major is to prepare its graduates for the possibility of pursuing further educational opportunities in construction management/construction technology or related fields. To achieve success in fulfilling these objectives the program must be dedicated to continuous improvement of the current curriculums, equipment, software, and educational delivery systems.

The program has formalized educational objectives that our student's should possess within several years of graduation. These educational objectives form the strategy for guiding the program to deliver a quality educational product and are as follows:

- Prepare Civil Engineering Technology - Construction Management graduates to successfully enter and pursue baccalaureate degrees.
- Prepare Civil Engineering Technology - Construction Management technicians to enter and advance professionally in technical and management positions in the local construction industry.

Academic Goals:

The goals and objectives of the Construction Management major are as follows:

- Provide pathways to baccalaureate programs such that a student has a smooth transition from Cincinnati State. This will be measured by the percentage of graduates pursuing advanced degrees and their satisfaction with the transition (on the 1-yr Graduate Survey).
- Provide a quality education that is both relevant and rigorous such that a student has a smooth transition into the construction workforce. This will be measured by the percentage of graduates answering such a question on the 1-yr Graduate Survey.

- Provide a quality education that allows advancement into an organization or the industry. This will be measured by the average salary ranges between the 1-yr and 3-yr Graduate Survey.
- Increase visibility of the program within the local Cincinnati area, state, and national level. This will be measured by the participation of faculty on industry boards, accreditation bodies, delivery of presentations, and writing of articles/papers.

III. Educational Outcomes: The mission of the Civil Engineering Technology-Construction Management major is to develop technically competent and professional graduates for successful careers within their chosen profession. The primary objective of each specific major within the CET program is to provide the community with a qualified graduate that possesses a broad understanding of basic technical fundamentals coupled with the knowledge of the most current advancements in the profession. Broad areas of the curriculum are shared by each of the three majors (Architectural, Construction management and Surveying) although the specific technical skills for each are understandably divergent. The following is a list of the anticipated outcomes from the Construction Management major.

Construction Management Major Outcomes

The program also has formalized six educational outcomes that our student's should possess upon graduating from the program. These are as follows:

Outcome 1: The student will be able to communicate as individuals, as well as function effectively on teams, by applying oral and written skills.

Outcome 2: The student will have an awareness of their responsibilities in the construction management field, recognizing the need for continual learning to remain well-prepared to face contemporary professional, social and global challenges in a diverse society.

Outcome 3: The student will demonstrate an appropriate mastery of fundamental knowledge and tools, including construction methods, procedures, and technological processes inherent to construction.

Outcome 4: The students will demonstrate the knowledge of the importance of quality, timeliness, and continuous improvement in the construction management field.

Outcome 5: The student will demonstrate an ability to identify, analyze and solve technical and design problems.

Outcome 6: The student will be able to apply fundamental knowledge along with current techniques and skills to conduct experiments, analyze data, interpret and apply results to improve processes.

II. ASSESSMENT

General

The assessment plan for the Engineering Technologies Division has been in existence since 2004, the Civil Engineering Technology program has had a formal continuous improvement plan since January 2001. This process which the Construction Management Major (CETC) has had in place has been “meshed” with the divisional model and CET department model. The CETC improvement plan is used to identify competencies needed by the student who is preparing to enter the civil engineering technology industry and shaping the CET curriculum to meet that need. This two-tiered assessment approach focuses on the six aforementioned CETC outcomes. By utilizing both program level (in-process) and post- program level (outcomes) assessment tools, the CETC major is able to identify areas for improvement. This information provides feedback which is thoughtfully considered as adjustments to the curriculum are contemplated.

The primary emphasis of the Construction Management Major’s assessment plan is to collect relevant data for the evaluation of the previously stated outcomes and objectives. Among entering the program, students are assessed in the following manners;

1. Co-op Evaluations (Performance Appraisals) – Each student participating in the co-op component is required to complete an evaluation of their experience. Similarly, each co-op employer will complete an evaluation of the student detailing their skills, competencies and work habits. These employer evaluations provide input about performance, abilities, basic knowledge, and other qualities that our students possess. These evaluations are extremely valuable because they give instantaneous feedback on student outcomes while students are still progressing through the program.
2. Capstone Courses (Oral Examination / Presentation) – An effective method of instruction utilized in all three CET majors is a project-oriented capstone course. The capstone courses are Construction Management 2, Building Systems Design, and Survey Field Project for the Construction Management, Architectural, and Surveying majors respectively. Taught in the final school term, these courses strive to create a comprehensive educational experience synthesizing previously learned material, a team approach to problem solving, effective communication techniques, and external practitioner involvement. These capstone courses require students in the various majors to complete projects such as total subdivision design, project proposal/presentation for a construction project and comprehensive system design for a commercial structure. Students are assembled into project teams and work in a company-like atmosphere that gives them the sense of responsibility, professionalism and deadlines. The courses typically culminate with an oral presentation that has been regularly attended by faculty, college administration, and practicing professionals. This type of instruction provides a big advantage to students upon entering the profession. An example of this capstone course in the Construction Management major is Construction Management 2 (CET 7953) taken in the student’s

final academic term. Taught annually in the Spring and Summer, these courses strive to create a comprehensive educational experience synthesizing previously learned material, a team approach to problem solving, effective communication techniques, and external practitioner involvement. This capstone course requires a student in the various majors to complete projects involving various facets of previously learned material. Students are assembled into project teams and work in a company-like atmosphere that gives them the sense of responsibility, professionalism and deadlines. This course culminates with a project submission and/or an oral presentation that is regularly attended by faculty, divisional administration, and practicing professionals.

3. Advisory Board (Focus Group)

The Civil Engineering Technology program has an advisory committee composed of individuals representing the various constituencies of the CET program. Each of the three majors (Architectural, Construction Management and Surveying) has several members with a background specifically related to that discipline. Additionally, the advisory board contains a student member from the CET program, a university representative from an institution regularly accepts CET transfer students, and a representative from a local high school.

The Civil Engineering Technology program's advisory board meets annually, typically in the Fall, to discuss the state of the program and to address the needs of industry, our other constituencies, and the program. The smaller "subcommittee" that exists for each of the three CET majors may meet more often throughout the year to discuss issues more specific to their own discipline. The program chair also has compiled an "e-mail" list of the advisory board members and typically sends out updates to the members concerning special events or items throughout the year. The issues discussed include curricular issues, new initiatives, student activities, student preparedness, and student recruitment and retention. While these activities do not generally produce a quantitative measure of professional quality, they provide valuable qualitative information on the quality of our students and our programs.

The advisory committee has assisted the program in several manners throughout its existence. Primarily the industry advisory board provides both formal and informal input regarding curricular content with the program. Although such matters are continually scrutinized by the program faculty it is often helpful to receive "real-world" advice on matters concerning the changing skills and competencies demanded by our constituents. Secondly, many of the advisory board members from industry assist the program by participating in the cooperative education component of the curriculum. This participation of local companies has been an integral component of the CET program since its inception and provides the student an experience that cannot be replicated in the classroom. Additionally, this experience provides further feedback on student performance that aids both the program and industry as they collaboratively focus on the development of the student through his/her time spent at Cincinnati State.

Note: A change to the current assessment plan is the removal of confidence surveys of the students at various time-intervals throughout the program. After 5-years of data collection, it was felt by the faculty that the information received was of little statistical significance and therefore this method was removed from the assessment process.

Post-Program Level – Among entering the program students are assessed in the following manners;

1. Multiple assessment processes, coordinated by the Office of Institutional Research & Planning, allow the College to capture perspectives from alumni. Continuous feedback obtained by using several mechanisms enables the program faculty to keep pace with the rapid changes in technology and the needs of the business community. These mechanisms include the ACT Alumni Survey. Administered by ACT each year using a set of validated questions, this survey provides an independent measure of our performance. It is sent to all College graduates, six to eight months after they have been out of school. A response rate of 35% is typical. The survey presents a series of questions in four areas: background information, continuing education, educational experience, and graduate employment. Normative (national) data based on responses from more than 16,000 alumni of two-year institutions nationwide is provided by ACT for comparison. In addition the College also administers a “Graduating Student Survey” on an annual basis which is given out to the program chairs and then directed to the classes (and students) that are in their final term(s).
2. CETC Graduate Survey – The Construction Management major conducts annual surveys of its graduates in a one and three year cycle to assess and monitor graduate success. The one-year survey (hereafter referred to as the CETC Graduate Survey) is sent out to all students graduating in the previous academic year to elicit feedback on the curriculum and current plans. The CETC Graduate Survey is administered in the Fall term such that responses and trends can be considered for curriculum development. The CETC Graduate Survey has been administered under the direction of the program chair of CET since the 1999 – 2000 graduating class. The students are also sent a follow-up survey during the third anniversary year (hereafter referred to as the Three-Year CETC Graduate Survey) to provide feedback on their growth within the industry and/or further educational pursuits in that time period. These surveys are administered every year near the end of the calendar year.
3. Employer Survey – the division has administered an employer survey sent to all employers in the database periodically. The survey is to assess the satisfaction with both co-op and graduate students and this year was sent out to provide feedback as to the aforementioned six outcomes.

This two-tiered assessment approach focuses on the six aforementioned CETC outcomes. By utilizing both program level (in-process) and post- program level (outcomes) assessment tools, the CETC major is able to identify areas for improvement. This information provides feedback which is thoughtfully considered as adjustments to the curriculum are contemplated.

Responsible Parties

Co-op Evaluations (Performance Appraisals) – CET Co-op Coordinator reviews the evaluation of each student (of experience) and each employer (of student). This occurs every term and is reported at meetings throughout the year.

Capstone Courses (Oral Examination / Presentation) – Program Faculty create and monitor the capstone experience in the student’s last term. Capstone course are CET 7950 (Survey Field project), CET 7953 (Construction Management 2), and CET 7969 (Building Systems Design). These course are offered Spring and Summer terms for day students and typically in the Early Fall (alternate years) for the evening students.

Advisory Board (Focus Group) – The Program Chair is responsible for planning and organizing the advisory board meetings as well as recording the minutes. Currently, the group meets with program faculty each year in May and may also meet in the Fall if the situation dictates. Advisory Board members are kept apprised of program activities through periodic emails and web page updates.

ACT Alumni Survey, Graduating Student Survey – Administered by the Office of Institutional Research annually in Spring and Summer. Results are shared via email with Faculty.

CET Graduate Surveys – Administered by the Program Chair. 1-year survey administered in each Fall and 3-year survey is administered each Winter. Results shared with faculty as they are compiled.

Employer Survey – Administered by ETD administration.

Summary of Assessment Implementation

Program Level Assessment Tool	Frequency	Who is responsible	Comments
#1. Course Assessment	Every Term	Faculty	Rubrics in Presentation assignments, Faculty Input, Checkpoint Ratings (every 3 years)
#2. Co-op Evaluations	Every Term	Co-op Coordinator	Evaluations
#3. Capstone Courses	Final Term	Faculty	Industry panel used
#4. Advisory Board	Fall, Spring if needed	Program Chair	Effective feedback
#5. Accreditation Reports and Program Review	Every 5-6 years	Program Chair	

#6. Traditional Methods of Evaluating Students	Every Term	Faculty	Student work
Post Program Level			
#1. College Surveys	Annually	Institutional Research	Effective feedback
#2. CET Graduate Surveys	Annually on 1 and 3 year cycles	Program Chair	CET outcome directed feedback
#3. Employer Survey	Every 5 Years	ETD Administration	

The continuous improvement cycle in the Civil Engineering Technology program was first developed in January 2001, long before the aforementioned ETD model and has evolved to include a broader spectrum of assessment tools. The CET model depends on inputs from the previously mentioned constituencies and follows an approximate timeline as shown below. It should be stressed that this process is not constrained by the academic year, that is, decisions are actually based on input that may span over several years.

The program chair maintains a record of advisory board meetings, curriculums and their changes, CET graduate survey results and college and divisional survey results. The program chair holds program meetings regularly throughout the year to discuss issues and share information among program faculty. The program discusses inputs from the sources indicated in following timeline such that final decisions are ready to present to the College's Academic Policies and Curriculum Committee (APCC) in January or February.

CET Continuous Improvement Timeline												
	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Initiate and Collect CET 1-Yr Graduate Survey (Input)				■	■							
Initiate and Collect CET 3-Year Graduate Survey (Input)				■	■							
Advisory Board Subcommittees Meetings (as needed) (Input)	■	■										
College ACT Alumni Survey Results (Input)									■	■		
Full Advisory Board Meeting (Input)	■	■										
Program Meetings on Curriculum (Input)	■	■	■	■								
Course Assessment by Faculty (Input)	■	■	■	■	■	■	■	■	■	■	■	■
Capstone Courses by Faculty (Input)								■	■	■	■	■

II. CONSTRUCTION MANAGEMENT MAJOR ASSESSMENT RESULTS

General

The results from the aforementioned assessment plan are summarized by the program chair for review by the faculty and advisory board members. Summaries of the 1-Year CET Graduate Survey, the 3-Year Graduate CET Survey, and the college administered Graduating Student Survey are shown dating back to 2005 in the following pages. The CET Co-op Employer Survey for 2010 is shown as well as the Capstone Outcome reports for the current year.

Summary

The results show that the CET program outcomes and objectives are being met to the satisfaction of both the graduating student as well as the industry that employs them. Transfer success to Northern Kentucky University and to the University of Cincinnati is high and students from the CET program are favorably viewed by these baccalaureate degree programs.

CETC Program Outcome Report (2009-10)

When: Each Fall term the prior year’s graduates (EF term – SU term) are surveyed

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates). This has been modified to assess the six CET outcomes that have recently been developed. Because of the relative “newness” of these outcomes, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Outcome No.	2009 EF – 2010 SU Scores N = 8	2008 EF – 2009 SU Scores N = 6	2007 EF – 2008 SU Scores N = 5	2006 EF – 2007 SU Scores N = 5	2005 EF – 2006 SU Scores N = 6	2004 EF – 2005 SU Scores N = 4
1 – Communication, Teamwork	4.13	4.83	4.0	4.6	4.67	4.5
2 – Continual Learning, Professional & Global Awareness	4.13	4.67	4.4	4.6	4.5	4.25
3 – Mastery of Fundamental Knowledge	3.75	4.83	4.2	4.0	4.5	4.25
4 – Knowledge of Quality, Timeliness	4.13	5.0	3.8	4.2	4.67	4.75
5 – Solving Technical & Design Problems	4.25	4.33	4.0	4.6	4.33	4.0
6 – Analyze & Interpret Data	4.25	4.33	4.2	4.6	4.5	4.5

Performance Criteria: The scores for the upcoming year should be at least 3.75. All six outcomes meet this— **performance criteria is MET.**

Additional Data: Scores on groups of courses and graduates feelings on program’s level of preparation are also relevant. These scores have been collected over the years and assessed by appropriate personnel.

How well did the curriculum prepare you?

Level	2009- 2010	2008- 2009	2007- 2008	2006- 2007	2005- 2006	2004- 2005	2003- 2004
Very Well Prepared	12.5%	50%	20%	20%	17%	25%	42%
Well Prepared	75%	50%	60%	80%	66%	75%	33%
Adequately	12.5%	-	20%	-	17%	-	25%
Poor	-	-	-	-	-	-	-

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be 60 % or more of the total. Additionally, the percentage of students scoring “adequately prepared”, “well prepared” and “very well prepared” should be 90% or more of the total. The 2004-05 data shows 88% of respondents stated that they were very well or well prepared (100% > 60%) and 100% of the respondents stated that they were at least adequately prepared (100% > 90%). **The performance criteria is MET.**

Data on Curriculum Changes: Construction Management students had CET 7921 Construction Surveying added to their curriculum in 2004 and had CET 7915 OSHA 10-hr Construction Safety added in 2006. This group of graduates was asked if the addition of these courses was beneficial to them. Scores are shown as follows:

Were these courses beneficial to you?

Course	2009-2010		2008-2009		2007-2008	
	Yes	No	Yes	No	Yes	No
CET 7915 – OSHA 10-hr Construction Safety	100%		100%		100%	
CET 7921 – Construction Layout	100%		100%		100%	

Performance Criteria: At least 70% of the respondents should indicate that the courses were beneficial— **performance criteria is MET.**

CETC Program Outcome Report (2008-09)

When: Each Fall term the prior year’s graduates (EF term – SU term) are surveyed

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates). This has been modified to assess the six CET outcomes that have recently been developed. Because of the relative “newness” of these outcomes, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Outcome No.	2008 EF – 2009 SU Scores N = 6	2007 EF – 2008 SU Scores N = 5	2006 EF – 2007 SU Scores N = 5	2005 EF – 2006 SU Scores N = 6	2004 EF – 2005 SU Scores N = 4
1 – Communication, Teamwork	4.83	4.0	4.6	4.67	4.5
2 – Continual Learning, Professional & Global Awareness	4.67	4.4	4.6	4.5	4.25
3 – Mastery of Fundamental Knowledge	4.83	4.2	4.0	4.5	4.25
4 – Knowledge of Quality, Timeliness	5.0	3.8	4.2	4.67	4.75
5 – Solving Technical & Design Problems	4.33	4.0	4.6	4.33	4.0
6 – Analyze & Interpret Data	4.33	4.2	4.6	4.5	4.5

Performance Criteria: The scores for the upcoming year should be at least 3.75. All six outcomes meet this— **performance criteria is MET.**

Additional Data : Scores on groups of courses and graduates feelings on program’s level of preparation are also relevant. These scores have been collected over the years and assessed by appropriate personnel.

How well did the curriculum prepare you?

Level	2008- 2009	2007- 2008	2006- 2007	2005- 2006	2004- 2005	2003- 2004	2002 – 2003	2001 – 2002
Very Well Prepared	50%	20%	20%	17%	25%	42%	25%	8%
Well Prepared	50%	60%	80%	66%	75%	33%	42%	77%
Adequately	-	20%	-	17%	-	25%	33%	15%
Poor	-	-	-	-	-	-	-	-

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be 60 % or more of the total. Additionally, the percentage of students scoring “adequately prepared”, “well prepared” and “very well prepared” should be 90% or more of the total. The 2004-05 data shows 100% of respondents stated that they were very well or well prepared (100% > 60%) and 100% of the respondents stated that they were at least adequately prepared (100% > 90%). **The performance criteria is MET.**

Data on Curriculum Changes: Construction Management students had CET 7921 Construction Surveying added to their curriculum in 2004 and had CET 7915 OSHA 10-hr Construction Safety added in 2006. This group of graduates was asked if the addition of these courses was beneficial to them. Scores are shown as follows:

Were these courses beneficial to you?

Course	2008-2009		2007-2008	
	Yes	No	Yes	No
CET 7915 – OSHA 10-hr Construction Safety	100%		100%	
CET 7921 – Construction Layout	100%		100%	

Performance Criteria: At least 70% of the respondents should indicate that the courses were beneficial— **performance criteria is MET.**

CETC Program Outcome Report (2007-08)

When: Each Fall term the prior year’s graduates (EF term – SU term) are surveyed

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates). This has been modified to assess the six CET outcomes that have recently been developed. Because of the relative “newness” of these outcomes, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Outcome No.	2007 EF – 2008 SU Scores N = 5	2006 EF – 2007 SU Scores N = 5	2005 EF – 2006 SU Scores N = 6	2004 EF – 2005 SU Scores N = 4	2003 EF – 2004 SU Scores N = 15
1 – Communication, Teamwork	4.0	4.6	4.67	4.5	3.92
2 – Continual Learning, Professional & Global Awareness	4.4	4.6	4.5	4.25	3.92
3 – Mastery of Fundamental Knowledge	4.2	4.0	4.5	4.25	4.15
4 – Knowledge of Quality, Timeliness	3.8	4.2	4.67	4.75	4.23
5 – Solving Technical & Design Problems	4.0	4.6	4.33	4.0	3.92
6 – Analyze & Interpret Data	4.2	4.6	4.5	4.5	4.23

Performance Criteria: The scores for the upcoming year should be at least 3.75. All six outcomes meet this— **performance criteria is MET.**

Additional Data : Scores on groups of courses and graduates feelings on program’s level of preparation are also relevant. These scores have been collected over the years and assessed by appropriate personnel.

How well did the curriculum prepare you?

Level	2007- 2008	2006- 2007	2005- 2006	2004- 2005	2003- 2004	2002 – 2003	2001 – 2002
Very Well Prepared	20%	20%	17%	25%	42%	25%	8%
Well Prepared	60%	80%	66%	75%	33%	42%	77%
Adequately	20%	-	17%	-	25%	33%	15%
Poor	-	-	-	-	-	-	-

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be 60 % or more of the total. Additionally, the percentage of students scoring “adequately prepared”, “well prepared” and “very well prepared” should be 90% or more of the total. The 2004-05 data shows 80% of respondents stated that they were very well or well prepared (100% > 60%) and 100% of the respondents stated that they were at least adequately prepared (100% > 90%). **The performance criteria is MET.**

Data on Curriculum Changes: Construction Management students had CET 7921 Construction Surveying added to their curriculum in 2004 and had CET 7915 OSHA 10-hr Construction Safety added in 2006. This group of graduates was asked if the addition of these courses was beneficial to them. Scores are shown as follows:

Were these courses beneficial to you?

Course	2007-2008	
	Yes	No
CET 7915 – OSHA 10-hr Construction Safety	100%	
CET 7921 – Construction Layout	100%	

Performance Criteria: At least 70% of the respondents should indicate that the courses were beneficial— **performance criteria is MET.**

CETC Program Outcome Report (2006-07)

When: Each Fall term the prior year’s graduates (EF term – SU term) are surveyed

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates). This has been modified to assess the six CET outcomes that have recently been developed. Because of the relative “newness” of these outcomes, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Outcome No.	2005 EF – 2006 SU Scores N = 6	2004 EF – 2005 SU Scores N = 4	2003 EF – 2004 SU Scores N = 15	2002 EF – 2003 SU Scores N = 13
1 – Communication, Teamwork	4.67	4.5	3.92	4.17
2 – Continual Learning, Professional & Global Awareness	4.5	4.25	3.92	3.67
3 – Mastery of Fundamental Knowledge	4.5	4.25	4.15	4.00
4 – Knowledge of Quality, Timeliness	4.67	4.75	4.23	4.25
5 – Solving Technical & Design Problems	4.33	4.0	3.92	3.67
6 – Analyze & Interpret Data	4.5	4.5	4.23	4.00

Performance Criteria: The scores for the upcoming year should be at least 3.75. All six outcomes meet this— **performance criteria is MET.**

Additional Data : Scores on groups of courses and graduates feelings on program’s level of preparation are also relevant. These scores have been collected over the years and assessed by appropriate personnel.

How well did the curriculum prepare you?

Level	2005- 2006	2004- 2005	2003- 2004	2002 – 2003	2001 – 2002
Very Well Prepared	17%	25%	42%	25%	8%
Well Prepared	66%	75%	33%	42%	77%
Adequately	17%	-	25%	33%	15%
Poor	-	-	-	-	-

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be 60 % or more of the total. Additionally, the percentage of students scoring “adequately prepared”, “well prepared” and “very well prepared” should be 90% or more of the total. The 2004-05 data shows 83% of respondents stated that they were very well or well prepared (100% > 60%)

and 100% of the respondents stated that they were at least adequately prepared (100% > 90%). **The performance criteria is MET.**

CETC Program Outcome Report (2005-06)

When: Each Fall term the prior year’s graduates (EF term – SU term) are surveyed

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates). This has been modified to assess the six CET outcomes that have recently been developed. Because of the relative “newness” of these outcomes, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Outcome No.	2005 EF – 2006 SU Scores N = 6	2004 EF – 2005 SU Scores N = 4	2003 EF – 2004 SU Scores N = 15	2002 EF – 2003 SU Scores N = 13
1 – Communication, Teamwork	4.67	4.5	3.92	4.17
2 – Continual Learning, Professional & Global Awareness	4.5	4.25	3.92	3.67
3 – Mastery of Fundamental Knowledge	4.5	4.25	4.15	4.00
4 – Knowledge of Quality, Timeliness	4.67	4.75	4.23	4.25
5 – Solving Technical & Design Problems	4.33	4.0	3.92	3.67
6 – Analyze & Interpret Data	4.5	4.5	4.23	4.00

Performance Criteria: The scores for the upcoming year should be at least 3.75. All six outcomes meet this— **performance criteria is MET.**

Additional Data : Scores on groups of courses and graduates feelings on program’s level of preparation are also relevant. These scores have been collected over the years and assessed by appropriate personnel.

How well did the curriculum prepare you?

Level	2005- 2006	2004- 2005	2003- 2004	2002 – 2003	2001 – 2002
Very Well Prepared	17%	25%	42%	25%	8%
Well Prepared	66%	75%	33%	42%	77%
Adequately	17%	-	25%	33%	15%
Poor	-	-	-	-	-

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be 60 % or more of the total. Additionally, the percentage of students scoring “adequately prepared”, “well prepared” and “very well prepared” should be 90% or more of the total. The 2004-05 data shows 83% of respondents stated that they were very well or well prepared (100% > 60%)

and 100% of the respondents stated that they were at least adequately prepared (100% > 90%). **The performance criteria is MET.**

CETC Program Outcome Report (2004-05)

When: Each Fall term the prior year’s graduates (EF term – SU term) are surveyed

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates). This has been modified to assess the six CET outcomes that have recently been developed. Because of the relative “newness” of these outcomes, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Outcome No.	2004 EF – 2005 SU Scores N = 4	2003 EF – 2004 SU Scores N = 15	2002 EF – 2003 SU Scores N = 13
1 – Communication, Teamwork	4.5	3.92	4.17
2 – Continual Learning, Professional & Global Awareness	4.25	3.92	3.67
3 – Mastery of Fundamental Knowledge	4.25	4.15	4.00
4 – Knowledge of Quality, Timeliness	4.75	4.23	4.25
5 – Solving Technical & Design Problems	4.0	3.92	3.67
6 – Analyze & Interpret Data	4.5	4.23	4.00

Performance Criteria: The scores for the upcoming year should be at least 3.75. All six outcomes meet this— **performance criteria is MET.**

Additional Data : Scores on groups of courses and graduates feelings on program’s level of preparation are also relevant. These scores have been collected over the years and assessed by appropriate personnel.

How well did the curriculum prepare you?

Level	2004- 2005	2003- 2004	2002 – 2003	2001 – 2002	2000 – 2001	1999 - 2000
Very Well Prepared	25%	42%	25%	8%	23%	18%
Well Prepared	75%	33%	42%	77%	62%	64%
Adequately	-	25%	33%	15%	15%	18%
Poor	-		-	-	-	-

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be 60 % or more of the total. Additionally, the percentage of students scoring “adequately prepared”, “well prepared” and “very well prepared” should be 90% or more of the total. The 2004-05 data shows 100% of respondents stated that they were very well or well prepared (100% > 60%)

and 100% of the respondents stated that they were at least adequately prepared (100% > 90%). **The performance criteria is MET.**

CETC Major Educational Objective Report (2007-08)

When: Each Winter term the graduates from 3 years prior (EF term – SU term) are surveyed.

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates) although because it a “3 year out” survey only two years have been collected. The instrument has been modified to assess the first two Program Educational Objectives of the CET program. Because of the relative “newness” of these objectives, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

4

Objective No.	2007 EF – 2008 SU Scores (1 – 5)
1 – Successfully enter & pursue baccalaureate degrees	4.3
2 – Enter and Advance Professionally	4.3

Additional Data : How well did the curriculum prepare you?

Level	2007 - 08	2006 - 07	2005-06	2004- 05	2003- 2004	2002- 2003
Very Well Prepared	43%			40%	NR	-
Well Prepared	28%	100%	100%	60%	NR	50%
Adequately	28%				NR	50%
Poor					-	

Additional Data : Objective Scores

Level	2007- 08 (n=7)	2006 – 07 (n=4)	2005- 2006 (n=2)	2004-05 (n = 2)	2003- 2004 (n=0)	2002- 2003 (n=3)
#1 – BS degrees	4.3	4.0	4	4.0	NR	3.6
#2 – Enter & Advance	4.3	4.0	4.5	4.5	NR	4

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be an average of 60 % or more of the total in a 3-year sample window. The score on the objectives should average 3.5 using the average of 3 consecutive samples.

Preparation: Very Well = $(43\% + 0\% + 0\%) / 3 = 14\%$, Well = $(100\% + 100\% + 28\%) / 3 = 76\%$ - this is a total of 90% over a three-year period ---- **CRITERIA MET**

Objective 1: $(4.0 + 4 + 4.3) / 3 = 4.1 > 3.5$ this is over the last three-sample period ---- **CRITERIA MET**

Objective 2: $(4.5 + 4.0 + 4.3) / 3 = 4.3 > 3.5$ this is over the last three-year period ---- **CRITERIA MET**

CETC Major Educational Objective Report (2006-07)

When: Each Winter term the graduates from 3 years prior (EF term – SU term) are surveyed.

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates) although because it a “3 year out” survey only two years have been collected. The instrument has been modified to assess the first two Program Educational Objectives of the CET program. Because of the relative “newness” of these objectives, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Objective No.	2006 EF – 2007 SU Scores (1 – 5)
1 – Successfully enter & pursue baccalaureate degrees	4.0
2 – Enter and Advance Professionally	4.0

Additional Data : How well did the curriculum prepare you?

Level	2006 - 07	2005-06	2004-05	2003-2004	2002-2003
Very Well Prepared			40%	NR	25%
Well Prepared	100%	100%	60%	NR	50%
Adequately				NR	25%
Poor				-	

Additional Data : Objective Scores

Level	2006 – 07 (n=1)	2005-2006 (n=2)	2004-05 (n = 2)	2003-2004 (n=0)	2002-2003 (n=3)
#1 – BS degrees	4.0	4.0	4.0	NR	3.6
#2 – Enter & Advance	4.0	4.5	4.5	NR	4

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be an average of 60 % or more of the total in a 3-year sample window. The score on the objectives should average 3.5 using the average of 3 consecutive samples.

Preparation: Very Well = $(0\% + 0\% + 40\%) / 3 = 13.3\%$, Well = $(100\% + 100\% + 60\%) / 3 = 87\%$ - this is a total of 100% over a three-year period ---- **CRITERIA MET**

Objective 1: $(4. + 4 + 4.) / 3 = 4.0 > 3.5$ this is over the last three-sample period ---- **CRITERIA MET**

Objective 2: $(4.0 + 4.5 + 4.5) / 3 = 4.3 > 3.5$ this is over the last three-year period ---- **CRITERIA MET**

CETC Major Educational Objective Report (2005-06)

When: Each Winter term the graduates from 3 years prior (EF term – SU term) are surveyed.

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates) although because it a “3 year out” survey only two years have been collected. The instrument has been modified to assess the first two Program Educational Objectives of the CET program. Because of the relative “newness” of these objectives, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Objective No.	2005 EF – 2006 SU Scores (1 – 5)
1 – Successfully enter & pursue baccalaureate degrees	4.0
2 – Enter and Advance Professionally	4.5

Additional Data : How well did the curriculum prepare you?

Level	2005-06	2004-05	2003-2004	2002-2003
Very Well Prepared		40%	NR	25%
Well Prepared	100%	60%	NR	50%
Adequately			NR	25%
Poor			-	

Additional Data : Objective Scores

Level	2005-2006 (n=2)	2004-05 (n = 2)	2003-2004	2002-2003 (n=3)
#1 – BS degrees	4	4.0	NR	3.6
#2 – Enter & Advance	4.5	4.5	NR	4

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be an average of 60 % or more of the total in a 3-year sample window. The score on the objectives should average 3.5 using the average of 3 consecutive samples.

Preparation: Very Well = $(0\% + 40\% + 40\%) / 2 = 20\%$, Well = $(100\% + 60\% + nr\%) / 2 = 80\%$ - this is a total of 100% over a three-year period ---- **CRITERIA MET**

Objective 1: $(4.0 + 4 + nr) / 2 = 4.0 > 3.5$ this is over the last three-sample period ---- **CRITERIA MET**

Objective 2: $(4.5 + 4.5 + nr) / 2 = 4.5 > 3.5$ this is over the last three-year period ---- **CRITERIA MET**

CETC Major Educational Objective Report (2004-05)

When: Each Winter term the graduates from 3 years prior (EF term – SU term) are surveyed.

Who: Program Chair collects data shares it with faculty and Advisory Board

Status: In effect since 2000 (1999EF – 2000SU graduates) although because it a “3 year out” survey only two years have been collected. The instrument has been modified to assess the first two Program Educational Objectives of the CET program. Because of the relative “newness” of these objectives, the format of the survey instrument has changed and only one year of numerical data has been collected and shared. These outcomes were assessed on a 1 – 5 Likert scale and are as follows:

Objective No.	2005 EF – 2006 SU Scores (1 – 5)
1 – Successfully enter & pursue baccalaureate degrees	4.0
2 – Enter and Advance Professionally	4.5

Additional Data : How well did the curriculum prepare you?

Level	2004-05	2003-04	2002-03
Very Well Prepared	50%	NR	25%
Well Prepared	50%	NR	50%
Adequately		NR	25
Poor			

Additional Data : Objective Scores

Level	2004-05 (n = 2)	2003-2004	2002-2003
#1 – BS degrees	4.0	NR	3.6
#2 – Enter & Advance	4.5	NR	4.0

Performance Criteria: The percentage of students scoring “well prepared” and “very well prepared” should be an average of 60 % or more of the total in a 3-year sample window. The score on the objectives should average 3.5 using the average of 3 consecutive samples.

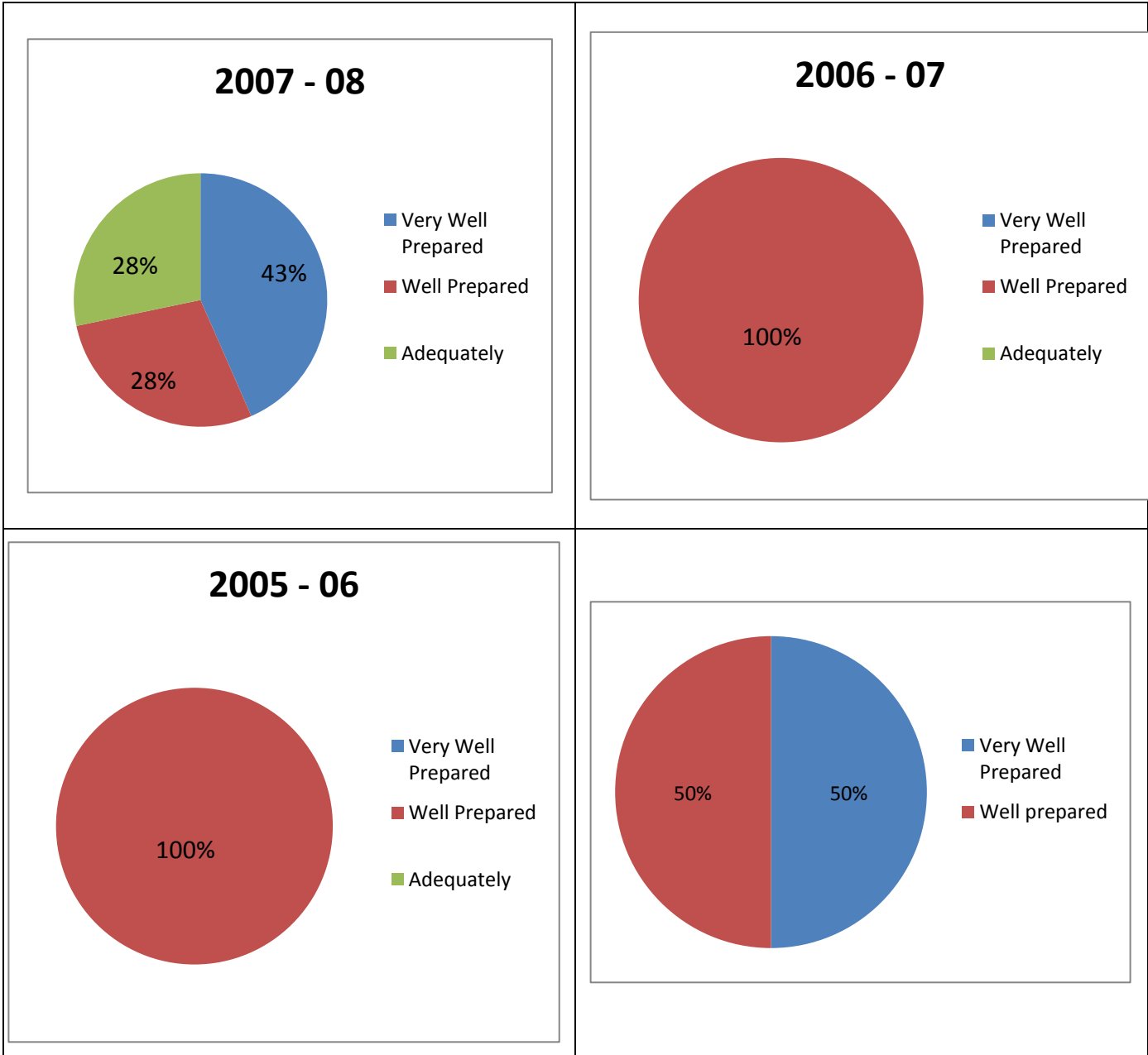
Preparation: Very Well = $(50\% + \text{NR}\% + 25\%)/2 = 38\%$, Well = $(50\% + \text{NR}\% + 50\%)/2 = 50\%$ - this is a total of 88% over a three-year period ---- **CRITERIA MET**

Objective 1: $(4.0 + \text{NR} + 3.6)/2 = 3.8 > 3.5$ this is over the last three-sample period ---- **CRITERIA MET**

Objective 2: $(4.5 + \text{NR} + 4)/2 = 4.25 > 3.5$ this is over the last three-year period ---- **CRITERIA MET**

Construction Management Graduates Preparedness Scores 2004 – 2008

(answering “how well did the Construction Management curriculum prepare you?”)



CET Co-op Employer Survey Results – Program Outcomes

Zoomerang Survey Results

Construction Management Co-op Employer Survey - ACCE

Dear Co-op Employer of Cincinnati State Construction Management Students, This Fall, the Construction Management Major at Cincinnati State is undergoing our accreditation review from the American Council for Construction Education (ACCE). We would like your assistance in completing a short survey that will take no longer than 2 minutes. The following questions focus on "program outcomes" which a graduate of the Construction Management major should possess upon graduation. Since co-operative education is an invaluable part of the education our students receive here at Cincinnati State, please provide your feedback on whether you believe that the CET co-op students that you have employed will attain these outcomes by the time they graduate. Please remember this is not an assessment of whether or not the co-op students that you have recently employed possess these characteristics currently, it is only an assessment of your belief that they can attain these outcomes by the time they graduate. Your help is greatly appreciated.

1. The following questions relate to the stated educational outcomes of the Construction Management Major. Please rate these outcomes relative to your personal experience with Cincinnati State Construction Management students as a whole, on a scale from 1 (strongly disagree that this outcome will be met) to 5 (strongly agree that this outcome will be met) Construction Management co-op students will possess the necessary communication skills and will be able to function effectively on teams by the time they graduate.

Strongly Disagree	0	0%
Disagree	0	0%
Neutral	0	0%
Agree	7	88%
Strongly Agree	1	12%
Total	8	100%

2. Construction Management co-op students will be aware of responsibilities in the civil / construction field, will recognize the need for continual learning to remain well-prepared to face contemporary professional, social and global challenges in a diverse society.

Strongly Disagree	0	0%
Disagree	0	0%
Neutral	0	0%
Agree	8	100%
Strongly Agree	0	0%
Total	8	100%

3. Construction Management co-op students will have an appropriate mastery of fundamental knowledge and tools, including estimating, that are important to the field of construction management.

Strongly Disagree	0	0%
Disagree	0	0%
Neutral	1	12%
Agree	7	88%
Strongly Agree	0	0%
Total	8	100%

4. Construction Management co-op students will have appropriate knowledge of the importance of quality, timeliness, and continuous improvement in the construction field.

Strongly Disagree	0	0%
Disagree	0	0%
Neutral	0	0%
Agree	7	88%
Strongly Agree	1	12%
Total	8	100%

5. Construction Management co-op students will have an ability to identify, analyze and solve technical problems.

Strongly Disagree	0	0%
Disagree	0	0%
Neutral	2	25%
Agree	6	75%
Strongly Agree	0	0%
Total	8	100%

6. Construction Management co-op students will be able to apply fundamental knowledge along with current techniques and skills to analyze data, interpret and apply results to improve processes.

Strongly Disagree	0	0%
Disagree	0	0%

Neutral	0	0%
Agree	8	100%
Strongly Agree	0	0%
Total	8	100%

7. Overall, do you believe Construction Management graduates from Cincinnati State will be prepared to enter the workforce?

Yes	8	100%
No	0	0%
Total	8	100%

CET Graduating Student Survey Results (College-Administered)

GRADUATING STUDENT SURVEY - 2009										Civil Engineering (Sample Size 19)				
Question Topic	Number					Percent								
Demographics														
	Male	Female	Total			Male	Female	Total						
1 Gender	15	4				19	79%	21%			100%			
	< 22	> 22	Total			< 22	> 22	Total						
2 Age group	7	12				19	37%	63%			100%			
	Afr Am	As Am	Cau Am	His/Lat	Other	Total	Afr Am	As Am	Cau Am	His/Lat	Other	Total		
3 Ethnic group	0	1	17	0	0	18	0%	6%	94%	0%	0%	100%		
	FT	PT	FT&PT	Total			FT	PT	FT&PT	Total				
4 Primary enrollment status	14	1	4			19	74%	5%	21%		100%			
	Day	Even	Both	Total			Day	Even	Both	Total				
5 Primary time class of attendance	9	1	9			19	47%	5%	47%		100%			
Future Plans														
	None	Assc	Bach	Mas/Doc	Other	Total	None	Assc	Bach	Mas/Doc	Other	Total		
6 Plans for continued education after graduation from CS	0	2	15	2	0	19	0%	11%	79%	11%	0%	100%		
	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total			
7 Feel education prepared you to continue in field of study	14	4	0	0	0	18	78%	22%	0%	0%	100%			
8 Feel prepared to take licensure/certification exams	8	9	0	1	0	18	44%	50%	0%	6%	100%			
Cooperative Education														
	Yes	No	Total			Yes	No	Total						
9 Received advanced standing for all/part co-op credit	8	10				18	44%	56%			100%			
10 Obtained course substitution for all/part of co-op credit	12	6				18	67%	33%			100%			
	1	2	3	4-5	>5	Total	1	2	3	4-5	>5	Total		
11 Number of terms of co-op	3	4	2	8	1	18	17%	22%	11%	44%	6%	100%		
	1-2	3-5	6-7	Total			1-2	3-5	6-7	Total				
12 Number of different companies worked during co-op	18	0	0			18	100%	0%	0%		100%			

9/6/2010

Note: Beginning with the 2007 GSS, not applicable responses are excluded from the total. Prior surveys include NA's.

GSS09-Civil Engineering Report

1 of 3

13 Rate assistance received in obtaining co-op placement	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
	5	8	5	0	0	18	28%	44%	28%	0%	100%	
14 How much learned in academic program on co-op placement	6	11	1	0	0	18	33%	61%	6%	0%	100%	
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
15 Satisfaction with cooperative education experience	9	6	1	1	1	18	50%	33%	6%	6%	6%	100%
Internships												
	1	2	>2	Total			1	2	>2	Total		
16 Number of internships at different organizations	1	0	0			1	100%	0%	0%		100%	
	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
17 Did internships help you make your career choice	1	0	0	0	0	1	100%	0%	0%	0%	100%	
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
18 Satisfaction with internship placements	1	0	0	0	0	1	100%	0%	0%	0%	0%	100%
Clinical/Directed Practice Experiences												
	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
19 Extent used what learned in program on clinical experience	0	0	0	0	0	0						
20 Extent clinical helped make career choice	0	0	0	0	0	0						
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
21 Satisfaction with clinical or directed practice experience	0	0	0	0	0	0						
Developmental Education												
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
22 Overall satisfaction with developmental education instruction	1	0	0	0	0	1	100%	0%	0%	0%	0%	100%
	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
23 How well it prepared for higher-level courses in major: Math courses in developmental education	1	0	0	0	0	1	100%	0%	0%	0%	100%	
24 Basic writing courses in developmental education	1	0	0	0	0	1	100%	0%	0%	0%	100%	
25 Basic reading courses in developmental education	1	0	0	0	0	1	100%	0%	0%	0%	100%	
Curriculum												
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
26 Overall satisfaction with program of study at CS	7	11	1	0	0	19	37%	58%	5%	0%	0%	100%

9/6/2010

Note: Beginning with the 2007 GSS, not applicable responses are excluded from the total. Prior surveys include NA's.

GSS09-Civil Engineering Report

2 of 3

		VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
27	Program improved ability to think critically and solve problems	5	12	2	0	0	19	26%	63%	11%	0%	100%	
28	How communication skills improved while at CS	6	12	1	0	0	19	32%	63%	5%	0%	100%	
29	How math skills improved at CS	5	11	2	1	0	19	26%	58%	11%	5%	100%	
Facilities													
	Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
30	Learning materials available in the classroom	4	10	3	1	0	18	22%	56%	17%	6%	0%	100%
31	Equipment available in the laboratories	5	7	6	1	0	19	26%	37%	32%	5%	0%	100%
32	Access to Internet and other electronic media	8	5	4	1	1	19	42%	26%	21%	5%	5%	100%
33	Technical assistance in the computer labs	2	8	9	2	0	19	11%	32%	47%	11%	0%	100%
34	Library services and facilities	4	6	9	0	0	19	21%	32%	47%	0%	0%	100%
Faculty and Academic Advising													
	Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
35	Quality of instruction in your major area of study	8	11	0	0	0	19	42%	58%	0%	0%	0%	100%
36	Attitude of faculty toward students	13	6	0	0	0	19	68%	32%	0%	0%	0%	100%
37	Availability of faculty outside of classroom	8	11	0	0	0	19	42%	58%	0%	0%	0%	100%
38	Availability of advisor when needed assistance	12	7	0	0	0	19	63%	37%	0%	0%	0%	100%
39	Accuracy of advisor about requirements, prerequisites, etc.	9	9	0	1	0	19	47%	47%	0%	5%	0%	100%
40	Caring, trusting, and open atmosphere provided by advisor	13	6	0	0	0	19	68%	32%	0%	0%	0%	100%
Special Needs													
		VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
41	With physical needs, rating of needs being met	1	0	0	0	0	1	100%	0%	0%	0%	0%	100%
42	With special needs, satisfaction with learning needs being met	1	0	0	0	0	1	100%	0%	0%	0%	0%	100%
Employment													
		Yes	No	NotEmp			Total	Yes	No	NotEmp			Total
43	Continuing current full-time employment after graduation	9	1	8			18	50%	6%	44%		0%	100%
44	Co-op placement, internship, or clinical led to job	9	6				15	60%	40%	0%		0%	100%
		7-10.00	10.01-12	12.01-16	16.01-18	>18.01	Total	7-10.00	10.01-12	12.01-16	16.01-18	>18.01	Total
46	Current Hourly Salary	0	1	4	2	1	8	0%	13%	50%	25%	13%	100%

Codes: VMuch=Very Much, Some=Somewhat, VLit=Very Little, NA=Not Applicable, VSat=Very Satisfied, Neu=Neutral, Dis=Dissatisfied, VDis=Very Dissatisfied, VInt=Very Interested, VInt=Very Little, VMuch=Very Much

9/6/2010

Note: Beginning with the 2007 GSS, not applicable responses are excluded from the total. Prior surveys include NA's.

G5509-Civil Engineering Report

3 of 3

GRADUATING STUDENT SURVEY - 2008													Civil Engineering (Sample Size 34)				
Question Topic		Number						Percent									
Demographics																	
		Male	Female				Total	Male	Female			Total					
1	Gender	31	3				34	91%	9%					100%			
		< 22	> 22				Total	< 22	> 22			Total					
2	Age group	20	14				34	59%	41%					100%			
		Afr Am	As Am	Cau Am	His/Lat	Other	Total	Afr Am	As Am	Cau Am	His/Lat	Other	Total				
3	Ethnic group	0	0	32	1	1	34	0%	0%	94%	3%	3%	100%				
		FT	PT	FT&PT			Total	FT	PT	FT&PT			Total				
4	Primary enrollment status	28	2	4			34	82%	6%	12%			100%				
		Day	Even	Both			Total	Day	Even	Both			Total				
5	Primary time class of attendance	15	2	17			34	44%	6%	50%			100%				
Future Plans																	
		None	Assc	Bach	Mas/Doc	Other	Total	None	Assc	Bach	Mas/Doc	Other	Total				
6	Plans for continued education after graduation from CS	0	1	29	4	0	34	0%	3%	85%	12%	0%	100%				
		VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total					
7	Feel education prepared you to continue in field of study	30	4	0	0	0	34	88%	12%	0%	0%	100%					
8	Feel prepared to take licensure/certification exams	13	18	2	0	1	33	39%	55%	6%	0%	100%					
Cooperative Education																	
		Yes	No				Total	Yes	No			Total					
9	Received advanced standing for all/part co-op credit	16	15				31	52%	48%			100%					
10	Obtained course substitution for all/part of co-op credit	19	13				32	59%	41%			100%					
		1	2	3	4-5	>5	Total	1	2	3	4-5	>5	Total				
11	Number of terms of co-op	2	3	8	16	4	33	6%	9%	24%	48%	12%	100%				
		1-2	3-5	6-7			Total	1-2	3-5	6-7		Total					
12	Number of different companies worked during co-op	27	6	0			33	82%	18%	0%		100%					

	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
13 Rate assistance received in obtaining co-op placement	8	14	7	4	0	33	24%	42%	21%	12%	100%	
14 How much learned in academic program on co-op placement	11	16	5	0	0	32	34%	50%	16%	0%	100%	
15 Satisfaction with cooperative education experience	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	16	11	5	0	0	32	50%	34%	16%	0%	0%	100%
Internships												
16 Number of internships at different organizations	1	2	>2			Total	1	2	>2		Total	
	4	3	1			8	50%	38%	13%		100%	
17 Did internships help you make your career choice	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
	2	4	1	0	2	7	29%	57%	14%	0%	100%	
18 Satisfaction with internship placements	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	2	5	1	0	0	8	25%	63%	13%	0%	0%	100%
Clinical/Directed Practice Experiences												
19 Extent used what learned in program on clinical experience	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
	0	0	0	0	0	0						
20 Extent clinical helped make career choice	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
	0	0	0	0	0	0						
21 Satisfaction with clinical or directed practice experience	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	0	0	0	0	0	0						
Developmental Education												
22 Overall satisfaction with developmental education instruction	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	0	3	2	0	0	5	0%	60%	40%	0%	0%	100%
How well it prepared for higher-level courses in major:	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
23 Math courses in developmental education	0	0	1	0	2	1	0%	0%	100%	0%	100%	
24 Basic writing courses in developmental education	0	0	1	0	2	1	0%	0%	100%	0%	100%	
25 Basic reading courses in developmental education	0	0	1	0	2	1	0%	0%	100%	0%	100%	
Curriculum												
26 Overall satisfaction with program of study at CS	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	8	24	1	0	0	33	24%	73%	3%	0%	0%	100%

9/6/2010

Note: Beginning with the 2007 GSS, not applicable responses are excluded from the total. Prior surveys include NA's.

GSS08-Civil Engineering Report

2 of 3

	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
27 Program improved ability to think critically and solve problems	15	17	1	0	0	33	45%	52%	3%	0%	100%	
28 How communication skills improved while at CS	13	17	3	0	0	33	39%	52%	9%	0%	100%	
29 How math skills improved at CS	7	18	7	0	1	32	22%	56%	22%	0%	100%	
Facilities												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
30 Learning materials available in the classroom	4	21	8	0	0	33	12%	64%	24%	0%	0%	100%
31 Equipment available in the laboratories	9	16	7	1	0	33	27%	48%	21%	3%	0%	100%
32 Access to Internet and other electronic media	11	13	7	2	0	33	33%	39%	21%	6%	0%	100%
33 Technical assistance in the computer labs	2	13	14	2	2	33	6%	39%	42%	6%	6%	100%
34 Library services and facilities	5	18	9	0	1	33	15%	55%	27%	0%	3%	100%
Faculty and Academic Advising												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
35 Quality of instruction in your major area of study	21	11	1	0	0	33	64%	33%	3%	0%	0%	100%
36 Attitude of faculty toward students	24	8	1	0	0	33	73%	24%	3%	0%	0%	100%
37 Availability of faculty outside of classroom	13	17	3	0	0	33	39%	52%	9%	0%	0%	100%
38 Availability of advisor when needed assistance	15	15	2	1	0	33	45%	45%	6%	3%	0%	100%
39 Accuracy of advisor about requirements, prerequisites, etc.	13	18	1	1	0	33	39%	55%	3%	3%	0%	100%
40 Caring, trusting, and open atmosphere provided by advisor	18	13	1	1	0	33	55%	39%	3%	3%	0%	100%
Special Needs												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
41 With physical needs, rating of needs being met	1	2	2	0	0	5	20%	40%	40%	0%	0%	100%
42 With special needs, satisfaction with learning needs being met	1	2	2	0	0	5	20%	40%	40%	0%	0%	100%
Employment												
Satisfaction with:	Yes	No	NotEmp	Total	Yes	No	NotEmp	Total				
43 Continuing current full-time employment after graduation	19	3	9	31	81%	10%	29%	100%				
44 Co-op placement, internship, or clinical led to job	12	18		30	40%	60%	0%	100%				
46 Current Hourly Salary	7-10.00	10.01-12	12.01-15	15.01-18	>18.01	Total	7-10.00	10.01-12	12.01-15	15.01-18	>18.01	Total
	0	1	1	5	3	10	0%	10%	10%	50%	30%	100%

Codes: VMuch=Very Much, Some=Somewhat, VLit=Very Little, NA=Not Applicable, VSat=Very Satisfied, Neu=Neutral, Dis=Dissatisfied, VDis=Very Dissatisfied, Vint=Very Interested, VLit=Very Little, VMuch=Very Much

9/6/2010

Note: Beginning with the 2007 GSS, not applicable responses are excluded from the total. Prior surveys include NA's.

GSS08-Civil Engineering Report

3 of 3

GRADUATING STUDENT SURVEY - 2007							Civil Engineering (Sample Size 16)						
Question Topic	Number						Percent						
Demographics													
1 Gender	Male	Female	Total				Male	Female	Total				
	14	2				16	88%	13%				100%	
2 Age group	< 22	> 22	Total				< 22	> 22	Total				
	9	7				16	56%	44%				100%	
3 Ethnic group	Afr Am	As Am	Cau Am	His/Lat	Other	Total	Afr Am	As Am	Cau Am	His/Lat	Other	Total	
	0	0	16	0	0	16	0%	0%	100%	0%	0%	100%	
4 Primary enrollment status	FT	PT	FT&PT	Total			FT	PT	FT&PT	Total			
	12	1	3			16	75%	6%	19%			100%	
5 Primary time class of attendance	Day	Even	Both	Total			Day	Even	Both	Total			
	6	0	10			16	38%	0%	63%			100%	
Future Plans													
6 Plans for continued education after graduation from CS	None	Assc	Bach	Mas/Doc	Other	Total	None	Assc	Bach	Mas/Doc	Other	Total	
	0	2	13	0	1	16	0%	13%	81%	0%	6%	100%	
7 Feel education prepared you to continue in field of study	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total		
	16	0	0	0	0	16	100%	0%	0%	0%	100%		
8 Feel prepared to take licensure/certification exams	12	3	1	0	0	16	75%	19%	6%	0%	100%		
Cooperative Education													
9 Received advanced standing for all/part co-op credit	Yes	No	Total				Yes	No	Total				
	10	5				15	67%	33%				100%	
10 Obtained course substitution for all/part of co-op credit	2	13	Total				13%	87%	Total				
	1	2	3	4-5	>5	15	13%	20%	13%	73%		100%	
11 Number of terms of co-op	1-2	3-5	6-7	Total			1-2	3-5	6-7	Total			
	10	5	0			15	67%	33%	0%			100%	

9/6/2010

Note: Beginning with the 2007 GSS, not applicable responses are excluded from the total. Prior surveys include NA's.

GSS07-Civil Engineering Report

1 of 3

13 Rate assistance received in obtaining co-op placement	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
	7	5	1	1	1	14	50%	36%	7%	7%	100%	
14 How much learned in academic program on co-op placement	4	10	1	0	0	15	27%	67%	7%	0%	100%	
15 Satisfaction with cooperative education experience	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	8	4	3	0	0	15	53%	27%	20%	0%	0%	100%
Internships												
16 Number of internships at different organizations	1	2	>2	Total			1	2	>2	Total		
	0	0	0			0						
17 Did internships help you make your career choice	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
	0	0	0	0	0	0						
18 Satisfaction with internship placements	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	0	0	0	0	0	0						
Clinical/Directed Practice Experiences												
19 Extent used what learned in program on clinical experience	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
	0	0	0	0	0	0						
20 Extent clinical helped make career choice	0	0	0	0	0	0						
21 Satisfaction with clinical or directed practice experience	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	0	0	0	0	0	0						
Developmental Education												
22 Overall satisfaction with developmental education instruction	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	2	0	2	0	0	4	50%	0%	50%	0%	0%	100%
How well it prepared for higher-level courses in major:	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
23 Math courses in developmental education	0	1	0	1	2	2	0%	50%	0%	50%	100%	
24 Basic writing courses in developmental education	1	1	0	1	1	3	33%	33%	0%	33%	100%	
25 Basic reading courses in developmental education	0	1	0	1	2	2	0%	50%	0%	50%	100%	
Curriculum												
26 Overall satisfaction with program of study at CS	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
	7	9	0	0	0	16	44%	56%	0%	0%	0%	100%

9/6/2010

Note: Beginning with the 2007 GSS, not applicable responses are excluded from the total. Prior surveys include NA's.

GSS07-Civil Engineering Report

2 of 3

	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	Total	
27 Program improved ability to think critically and solve problems	7	9	0	0	0	16	44%	56%	0%	0%	100%	
28 How communication skills improved while at CS	4	10	2	0	0	16	25%	63%	13%	0%	100%	
29 How math skills improved at CS	7	7	2	0	0	16	44%	44%	13%	0%	100%	
Facilities												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
30 Learning materials available in the classroom	3	10	2	0	0	15	20%	67%	13%	0%	0%	100%
31 Equipment available in the laboratories	6	9	1	0	0	16	38%	56%	6%	0%	0%	100%
32 Access to Internet and other electronic media	6	8	2	0	0	16	38%	50%	13%	0%	0%	100%
33 Technical assistance in the computer labs	7	4	2	3	0	16	44%	25%	13%	19%	0%	100%
34 Library services and facilities	4	6	7	0	0	16	25%	31%	44%	0%	0%	100%
Faculty and Academic Advising												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
35 Quality of instruction in your major area of study	12	4	0	0	0	16	75%	25%	0%	0%	0%	100%
36 Attitude of faculty toward students	14	2	0	0	0	16	88%	13%	0%	0%	0%	100%
37 Availability of faculty outside of classroom	6	9	1	0	0	16	38%	56%	6%	0%	0%	100%
38 Availability of advisor when needed assistance	10	5	1	0	0	16	63%	31%	6%	0%	0%	100%
39 Accuracy of advisor about requirements, prerequisites, etc.	9	4	2	0	0	15	60%	27%	13%	0%	0%	100%
40 Caring, trusting, and open atmosphere provided by advisor	10	5	1	0	0	16	63%	31%	6%	0%	0%	100%
Special Needs												
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
41 With physical needs, rating of needs being met	1	0	2	0	0	3	33%	0%	67%	0%	0%	100%
42 With special needs, satisfaction with learning needs being met	1	1	1	0	0	3	33%	33%	33%	0%	0%	100%
Employment												
	Yes	No	NotEmp	Total			Yes	No	NotEmp	Total		
43 Continuing current full-time employment after graduation	7	3	5	15			47%	20%	33%	100%		
44 Co-op placement, internship, or clinical led to job	9	3	12			75%	25%	100%				
	7-10.00	10.01-12	12.01-15	16.01-18	>18.01	Total	7-10.00	10.01-12	12.01-15	16.01-18	>18.01	Total
46 Current Hourly Salary	1	1	3	0	0	5	20%	20%	60%	0%	0%	100%

Codes: VMuch=Very Much, Some=Somewhat, VLit=Very Little, NA=Not Applicable, VSat=Very Satisfied, Neu=Neutral, Dis=Dissatisfied, VDis=Very Dissatisfied VInt=Very Interested, VIL=Very Little, VMuch=Very Much

9/6/2010

Note: Beginning with the 2007 GSS, not applicable responses are excluded from the total. Prior surveys include NAs.

GSS07-Civil Engineering Report

3 of 3

GRADUATING STUDENT SURVEY - 2006		Civil Engineering Technology (Sample Size 21)											
Question Topic	Number						Percent						
Demographics													
	Male	Female	Total			Male	Female	Total					
1 Gender	19	2	21			90%	10%	100%					
	< 22	> 22	Total			< 22	> 22	Total					
2 Age group	10	11	21			48%	52%	100%					
	Afr Am	As Am	Cau Am	His/Lat	Other	Total	Afr Am	As Am	Cau Am	His/Lat	Other	Total	
3 Ethnic group	1	0	20	0	0	21	5%	0%	95%	0%	0%	100%	
	FT	PT	FT&PT	Total			FT	PT	FT&PT	Total			
4 Primary enrollment status	18	1	2	21			86%	5%	10%	100%			
	Day	Even	Both	Total			Day	Even	Both	Total			
5 Primary time class of attendance	12	0	9	21			57%	0%	43%	100%			
Future Plans													
	None	Assc	Bach	Mas/Doc	Other	Total	None	Assc	Bach	Mas/Doc	Other	Total	
6 Plans for continued education after graduation from CS	3	2	16	0	0	21	14%	10%	76%	0%	0%	100%	
	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total	
7 Feel education prepared you to continue in field of study	19	2	0	0	0	21	90%	10%	0%	0%	0%	100%	
8 Feel prepared to take licensure/certification exams	15	5	0	0	1	21	71%	24%	0%	0%	5%	100%	
Cooperative Education													
	Yes	No	Total			Yes	No	Total					
9 Received advanced standing for all/part co-op credit	11	10	21			52%	48%	100%					
10 Obtained course substitution for all/part of co-op credit	5	16	21			24%	76%	100%					
	1	2	3	4-5	>5	Total	1	2	3	4-5	>5	Total	
11 Number of terms of co-op	2	2	3	14	0	21	10%	10%	14%	67%	100%		
	1-2	3-5	6-7	Total			1-2	3-5	6-7	Total			
12 Number of different companies worked during co-op	17	4	0	21			81%	19%	0%	100%			

9/6/2010

GSS06-Civil Engineering Technology Report

1 of 3

	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
13 Rate assistance received in obtaining co-op placement	16	4	0	1	0	21	76%	19%	0%	5%	0%	100%
14 How much learned in academic program on co-op placement	7	11	2	1	0	21	33%	52%	10%	5%	0%	100%
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
15 Satisfaction with cooperative education experience	17	3	1	0	0	21	81%	14%	5%	0%	0%	100%
Internships												
	1	2	>2			Total	1	2	>2			Total
16 Number of internships at different organizations	1	0	1			2	50%	0%	50%			100%
	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
17 Did internships help you make your career choice	2	0	0	0	0	2	100%	0%	0%	0%	0%	100%
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
18 Satisfaction with internship placements	1	1	0	0	0	2	50%	50%	0%	0%	0%	100%
Clinical/Directed Practice Experiences												
	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
19 Extent used what learned in program on clinical experience	0	0	0	0	0	0						
20 Extent clinical helped make career choice	0	0	0	0	0	0						
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
21 Satisfaction with clinical or directed practice experience	0	0	0	0	0	0						
Developmental Education												
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
22 Overall satisfaction with developmental education instruction	2	2	0	0	0	4	50%	50%	0%	0%	0%	100%
How well it prepared for higher-level courses in major:	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
23 Math courses in developmental education	1	3	0	0	0	4	25%	75%	0%	0%	0%	100%
24 Basic writing courses in developmental education	0	4	0	2	0	6	0%	67%	0%	33%	0%	100%
25 Basic reading courses in developmental education	0	2	2	0	0	4	0%	50%	50%	0%	0%	100%
Curriculum												
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
26 Overall satisfaction with program of study at CS	14	7	0	0	0	21	67%	33%	0%	0%	0%	100%

9/6/2010

GSS06-Civil Engineering Technology Report

2 of 3

	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
27 Program improved ability to think critically and solve problems	12	7	1	0	0	20	60%	35%	5%	0%	0%	100%
28 How communication skills improved while at CS	14	5	1	0	0	20	70%	25%	5%	0%	0%	100%
29 How math skills improved at CS	8	7	3	0	1	19	42%	37%	16%	0%	5%	100%
Facilities												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
30 Learning materials available in the classroom	6	9	6	0	0	21	29%	43%	29%	0%	0%	100%
31 Equipment available in the laboratories	6	7	2	5	1	21	29%	33%	10%	24%	5%	100%
32 Access to Internet and other electronic media	7	8	3	2	1	21	33%	38%	14%	10%	5%	100%
33 Technical assistance in the computer labs	4	7	4	2	4	21	19%	33%	19%	10%	19%	100%
34 Library services and facilities	3	7	9	0	0	19	16%	37%	47%	0%	0%	100%
Faculty and Academic Advising												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
35 Quality of instruction in your major area of study	15	6	0	0	0	21	71%	29%	0%	0%	0%	100%
36 Attitude of faculty toward students	17	4	0	0	0	21	81%	19%	0%	0%	0%	100%
37 Availability of faculty outside of classroom	13	7	1	0	0	21	62%	33%	5%	0%	0%	100%
38 Availability of advisor when needed assistance	13	8	0	0	0	21	62%	38%	0%	0%	0%	100%
39 Accuracy of advisor about requirements, prerequisites, etc.	13	8	0	0	0	21	62%	38%	0%	0%	0%	100%
40 Caring, trusting, and open atmosphere provided by advisor	16	5	0	0	0	21	76%	24%	0%	0%	0%	100%
Special Needs												
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
41 With physical needs, rating of needs being met	2	0	1	0	0	3	67%	0%	33%	0%	0%	100%
42 With special needs, satisfaction with learning needs being met	2	0	1	0	0	3	67%	0%	33%	0%	0%	100%
Employment												
	Yes	No	NotEmp			Total	Yes	No	NotEmp			Total
43 Continuing current full-time employment after graduation	11	5	5			21	52%	24%	24%			100%
44 Co-op placement, internship, or clinical led to job	11	8				19	58%	42%	0%			100%
	7-10.00	10.01-12	12.01-15	16.01-18	>18.01	Total	7-10.00	10.01-12	12.01-15	16.01-18	>18.01	Total
45 Current Hourly Salary	2	0	2	1	1	6	33%	0%	33%	17%	17%	100%
Codes: VMuch=Very Much, Some=Somewhat, VLit=Very Little, NA=Not Applicable, VSat=Very Satisfied, Neu=Neutral, Dis=Dissatisfied, VDis=Very Dissatisfied, VInt=Very Interested, VLit=Very Little, VMuch=Very Much												

9/6/2010

GSS06-Civil Engineering Technology Report

3 of 3

GRADUATING STUDENT SURVEY - 2005										Civil Engineering Technology (Sample Size 15)									
Question Topic		Number					Percent												
Demographics																			
1	Gender	Male	Female			Total	Male	Female			Total								
		13	2			15	87%	13%			100%								
2	Age group	< 22	> 22			Total	< 22	> 22			Total								
		8	7			15	53%	47%			100%								
3	Ethnic group	Afr Am	As Am	Cau Am	His/Lat	Other	Total	Afr Am	As Am	Cau Am	His/Lat	Other	Total						
		1	0	13	0	1	15	7%	0%	87%	0%	7%	100%						
4	Primary enrollment status	FT	PT	FT&PT			Total	FT	PT	FT&PT			Total						
		10	0	3			13	77%	0%	23%			100%						
5	Primary time class of attendance	Day	Even	Both			Total	Day	Even	Both			Total						
		8	0	7			15	53%	0%	47%			100%						
Future Plans																			
6	Plans for continued education after graduation from CS	None	Assc	Bach	Mas/Doc	Other	Total	None	Assc	Bach	Mas/Doc	Other	Total						
		0	2	13	0	0	15	0%	13%	87%	0%	0%	100%						
7	Feel education prepared you to continue in field of study	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total						
		12	3	0	0	0	15	80%	20%	0%	0%	0%	100%						
8	Feel prepared to take licensure/certification exams	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total						
		7	7	0	0	1	15	47%	47%	0%	0%	7%	100%						
Cooperative Education																			
9	Received advanced standing for all/part co-op credit	Yes	No				Total	Yes	No				Total						
		8	3				11	73%	27%				100%						
10	Obtained course substitution for all/part of co-op credit	Yes	No				Total	Yes	No				Total						
		2	11				13	15%	85%				100%						
11	Number of terms of co-op	1	2	3	4-5	>5	Total	1	2	3	4-5	>5	Total						
		1	1	3	7	0	12	8%	8%	25%	58%		100%						
12	Number of different companies worked during co-op	1-2	3-5	6-7			Total	1-2	3-5	6-7			Total						
		11	1	0			12	92%	8%	0%			100%						

9/6/2010

GSS05-Civil Engineering Technology Report

1 of 3

13	Rate assistance received in obtaining co-op placement	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
		7	2	0	2	1	12	58%	17%	0%	17%	8%	100%
14	How much learned in academic program on co-op placement	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
		7	4	1	0	0	12	58%	33%	8%	0%	0%	100%
15	Satisfaction with cooperative education experience	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
		11	1	0	0	0	12	92%	8%	0%	0%	0%	100%
Internships													
16	Number of internships at different organizations	1	2	>2			Total	1	2	>2			Total
		0	0	0			0						
17	Did internships help you make your career choice	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
		0	0	0	0	0	0						
18	Satisfaction with internship placements	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
		0	0	0	0	0	0						
Clinical/Directed Practice Experiences													
19	Extent used what learned in program on clinical experience	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
		0	0	0	0	0	0						
20	Extent clinical helped make career choice	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
		0	0	0	0	0	0						
21	Satisfaction with clinical or directed practice experience	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
		0	0	0	0	0	0						
Developmental Education													
22	Overall satisfaction with developmental education instruction	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
		2	0	4	0	0	6	33%	0%	67%	0%	0%	100%
23	How well it prepared for higher-level courses in major: Math courses in developmental education	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
		2	2	2	0	1	7	29%	29%	29%	0%	14%	100%
24	Basic writing courses in developmental education	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
		0	3	2	0	1	6	0%	50%	33%	0%	17%	100%
25	Basic reading courses in developmental education	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
		0	3	1	0	2	6	0%	50%	17%	0%	33%	100%
Curriculum													
26	Overall satisfaction with program of study at CS	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
		7	5	2	0	0	14	50%	36%	14%	0%	0%	100%

9/6/2010

GSS05-Civil Engineering Technology Report

2 of 3

	VMuch	Some	VLit	None	NA	Total	VMuch	Some	VLit	None	NA	Total
27 Program improved ability to think critically and solve problems	10	5	0	0	0	15	67%	33%	0%	0%	0%	100%
28 How communication skills improved while at CS	8	6	1	0	0	15	53%	40%	7%	0%	0%	100%
29 How math skills improved at CS	9	4	1	0	1	15	60%	27%	7%	0%	7%	100%
Facilities												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
30 Learning materials available in the classroom	3	11	0	1	0	15	20%	73%	0%	7%	0%	100%
31 Equipment available in the laboratories	3	7	5	0	0	15	20%	47%	33%	0%	0%	100%
32 Access to Internet and other electronic media	5	7	2	1	0	15	33%	47%	13%	7%	0%	100%
33 Technical assistance in the computer labs	2	6	6	1	0	15	13%	40%	40%	7%	0%	100%
34 Library services and facilities	3	5	5	1	0	14	21%	36%	36%	7%	0%	100%
Faculty and Academic Advising												
Satisfaction with:	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
35 Quality of instruction in your major area of study	6	6	0	1	0	15	53%	40%	0%	7%	0%	100%
36 Attitude of faculty toward students	12	3	0	0	0	15	80%	20%	0%	0%	0%	100%
37 Availability of faculty outside of classroom	9	6	0	0	0	15	60%	40%	0%	0%	0%	100%
38 Availability of advisor when needed assistance	9	5	1	0	0	15	60%	33%	7%	0%	0%	100%
39 Accuracy of advisor about requirements, prerequisites, etc.	9	4	2	0	0	15	60%	27%	13%	0%	0%	100%
40 Caring, trusting, and open atmosphere provided by advisor	10	5	0	0	0	15	67%	33%	0%	0%	0%	100%
Special Needs												
	VSat	Sat	Neu	Dis	VDis	Total	VSat	Sat	Neu	Dis	VDis	Total
41 With physical needs, rating of needs being met	0	1	2	0	0	3	0%	33%	67%	0%	0%	100%
42 With special needs, satisfaction with learning needs being met	0	1	2	0	0	3	0%	33%	67%	0%	0%	100%
Employment												
	Yes	No	NotEmp	Total			Yes	No	NotEmp	Total		
43 Continuing current full-time employment after graduation	8	1	6	15			53%	7%	40%	100%		
44 Co-op placement, internship, or clinical led to job	8	3		11			73%	27%	0%	100%		
	7-10.00	10.01-12	12.01-16	16.01-18	>18.01	Total	7-10.00	10.01-12	12.01-16	16.01-18	>18.01	Total
46 Current Hourly Salary	1	3	0	0	0	4	25%	75%	0%	0%	0%	100%
Codes: VMuch=Very Much, Some=Somewhat, VLit=Very Little, NA=Not Applicable, VSat=Very Satisfied, Neu=Neutral, Dis=Dissatisfied, VDis=Very Dissatisfied												

CETC Curriculum Change Feedback

Over the past six years, the Construction Management curriculum has undergone several major changes based on input from various CET constituencies. In any improvement process, assessment of these changes must be performed in order to evaluate their success. During the last several years, questions have been added to the “1-Year CET Graduate Survey” in order to provide a mechanism to assess the benefit provided by the addition of three new courses to the CET curriculum. The courses assessed were CET 7915 – OSHA 10 Hour, CET 7921 – Construction Surveying, and CET 7929 (3D Modeling and Information). The Results are as follows:

In recent years we have added courses to the various CET curriculum. Please tell us if they were beneficial to you?

Course	2009-2010		2008-2009		2007-2008	
	Yes	No	Yes	No	Yes	No
CET 7915 – OSHA 10-hr Construction Safety	100%		100%		100%	
CET 7921 – Construction Layout	100%		100%		100%	
CET 7929 – Revit-Architectural	100%					

Construction Management Graduate Profile – 2010

The 1-Year CET Graduate Survey asks several other questions relating to their employment and/or pursuit of advanced degrees.

Average Salary - \$35,800

Have You Continued Your Education? 78%

Job Titles

- Estimator
- Demolition Contractor
- Closeout Coordinator
- Senior Quality Assurance Engineer
- Carpenter
- Sales Rep
- Contractor
- Plumbing/Piping Coordinator
- Project manager



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May 25, 2010

Dr. Thomas Burns, PE
Cincinnati State Technical and Community College
Civil Engineering Technology Department
3520 Central Parkway
Cincinnati, OH 45223

Re: Student Success Data after Transfer

Dear Tom,

Per your request, I have searched for data regarding the success of students which have transferred from your Civil Engineering Technology Department to my program over the last two years. Please note that Northern Kentucky University is currently implementing a new campus management software and unfortunately accurate numbers are currently not available regarding transfer students. However, my records, collected as part of our assessment program, indicate that since fall 2008, a total of 19 students who transferred from Cincinnati State Technical and Community College have graduated with their bachelor degree in Construction Management out of our department. Those 19 students represent approximately 20 percent of all NKU Construction Management graduates during that timeframe. While I unfortunately cannot provide you with the number of students who have entered the program at this point, I can tell you that those students that come to NKU from your program do very well and very few fail to complete their degree. As you can see, the success your students are having at NKU speaks volumes about the preparation they receive at Cincinnati State. In my opinion, the CET objective of successfully preparing students to pursue a bachelor degree is resoundingly being met.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean P. Foley", written over a white background.

Sean P. Foley, PhD
Chair and Associate Professor of Construction Management



American Council for
Construction Education

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Civil Engineering Technology Advisory Board Meeting Minutes

Date: October 27, 2010 (4:00 PM)

Location: Cincinnati State, Room 142

Attending: B. Payne, S. Cahill, B. Rutz, S. Foley, D. Krehbiel, D. Drury, D. Cox, T. Kennedy, D. Shaffer, D. Jones, J. Gothard, T. Burns, J. Buttelwerth, G. Armstrong, C. Morman, J. Decker, E. Feghali, M. Franklin

Minutes: Chairman (Burns) welcomed all at 4:00 PM and meeting began with a recap of the year's enrollment and graduation numbers. Incoming enrollment numbers (credit hrs) were approximately 15% lower than the year prior and Burns believes that is because of the still stagnant economy. The word "construction" is likely not being viewed favorably among high schools students and their parents. See table below.

	SU	EF	LF	WI	SP	TOTAL
2001-02	617	1228	950	1294	1259	5348
2002-03	675	975	956	1148	1001	4755
2003-04	648	1029	1116	1207	1106	5106
2004-05	634	1170	919	1365	1060	5148
2005-06	615	1267	1046	1407	1335	5670
2006-07	484	1277	1192	1547	1310	5810
2007-08	712	1568	1467	1620	1448	6815
2008-09	821	1214	1407	1414	1505	6361
2009-10	800	1419	1652	1677	1434	6882

The CET program graduated 29 students this year which is lower than normal but that might be due to the fact that 62 students graduates in the prior year which is extremely large. The average between the two years is roughly 45 which would be considered a bit above average in a normal year.

Although the curriculums in each major reported no major changes each major as the college transitions to a semester calendar in fall 2012. Some discussion was conducted on the technology used as it related to BIM and laser scanning. Burns noted that the Board will likely have to gather again in Spring to review the new semester-based formats for each curriculum. It was noted how the semester change will bring many unknowns to both the program and the college as the effect on enrollment, funding, and administration are unknown.

Burns thanked the Board for attending the ABET luncheon on Oct. 18th as the ABET evaluator was very impressed with the group. As they did in years past, the Board reviewed

outcome information and discussed latest information gathered from the one-year graduate surveys. Board was asked for input and comments on the 6 outcomes that have been used and all thought they were still effective and appropriate.

Steve Cahill spoke on happening within the Tri-state Surveyors Advisory Board (TSAB) that was started in Fall 2008. Tom, George, Jim and carol serve on this TSAB and improvements have been made to the funding of scholarships among the 4 area surveying bodies. The TSAB oversees the scholarships now which helps surveying students with their educational expenses. The TSAB's mission is to be the leading advocate of quality in the survey profession through promotion and support of surveying education programs in the Tri-State region.

Burns discussed the proposal that the Board consider functioning under an industry-led model. This is rarely done on the two-year level, but Burns suggested that the program may be able to move to new levels with such good members leading the way. Historically, CET advisory Board has functioned through a "faculty-led" model where advisors are "briefed" and asked for input. could move the CET program to the next level by maximizing the sense of engagement/ownership among industry participants. By "owning" the advisory board the industry can play a vital role in setting priorities and helping the program get to where it needs to be. Subcommittees could be formed to work on issues of interest to the Board. Such committees might be curriculum, integration with UC/NKU, scholarships, etc. Dick Krehbiel led an 'executive session' of only board members to discuss this proposal. The session lasted for 30 minutes and it was reported that the group is interested and would like to think more on the structure of this group. They will have more to report at the Spring meeting.

Meeting adjourned at 5:45.

Civil Engineering Technology Advisory Board Meeting Minutes

Date: September 23, 2009 (4:30 PM)

Location: Cincinnati State, Room 143A

Attending: B. Payne, S. Cahill, M. Haney, D. Wireman, D. Krehbiel, D. Drury, T. Kennedy, D. Shaffer, R. May, J. Gothard, T. Burns, J. Buttelerwerth, G. Armstrong, C. Morman, J. Decker, E. Feghali, R. Wells

Minutes: Chairman (Burns) welcomed all at 4:30 PM and meeting began with a recap of the year's enrollment and graduation numbers. Incoming enrollment numbers (credit hrs) were a bit lower than the year prior but that is because enrollment growth has been very strong since the 2004 school year. See table below.

	SU	EF	LF	WI	SP	TOTAL
2001-02	617	1228	950	1294	1259	5348
2002-03	675	975	956	1148	1001	4755
2003-04	648	1029	1116	1207	1106	5106
2004-05	634	1170	919	1365	1060	5148
2005-06	615	1267	1046	1407	1335	5670
2006-07	484	1277	1192	1547	1310	5810
2007-08	712	1568	1467	1620	1448	6815
2008-09	821	1214	1407	1414	1505	6361

The CET program graduated many students this year and there were over 80 students listed in the June graduation ceremony booklet. The next couple of years may see slight increase in graduates which would reflect the growth in enrollment.

Although the curriculums in each major reported no major changes each major noted the new things they were incorporating in the delivery of their courses. Discussion centered around the move towards BIM-related courses and topics in both the CETC and CETA majors. Chairman Burns discussed the "BIM Industry Survey" that was sent to 50 employers/co-op employers in the Spring. Nineteen responded and almost half responded that their employees will need more proficiency with BIM than CAD in 5 years. Another 26% stated that they would need equal proficiency with CAD and BIM. Surveying advisors noted how the BIM movement was in their field as well, noting 3D laser scanning and the use of Civil 3D. The board also noted the importance of making students aware of the importance of sustainable design in the curriculum, not necessarily a separate course but touching upon the topic in a variety of courses. Faculty noted that this is done already, from talking about microsilica in concrete (a renewable material) to the CM2 capstone project where Mr. Sanyog Rathod

(Principal, Sol Developments LLC 1332 Spring Street, Cincinnati) gave a lecture on the LEED residential system.

The Board reviewed outcome information and discussed latest information gathered from the one-year graduate surveys. Board was asked for input and comments on the 6 outcomes that have been used and all thought they were still effective and appropriate.

Steve Cahill spoke of the launch of the Tri-state Surveyors Advisory Board (TSAB) that was started in Fall 2008. The TSAB's mission is to be the leading advocate of quality in the survey profession through promotion and support of surveying education programs in the Tri-State region. Steve told the board they have had 3 meetings and the goal is to be a vehicle whereby professionals and local educators can share ideas relative to survey related education.

Meeting adjourned at 6:00.

Civil Engineering Technology Advisory Board Meeting Minutes

Date: November 20, 2008 (4:00 PM)

Location: Room 143

Attending: B. Payne, S. Cahill, M. Haney, D. Wireman, D. Krehbiel, D. Drury, S. DeSalvo, R. May, S. Foley, J. Queener, T. Burns, J. Buttelerwerth, G. Armstrong, C. Morman, J. Decker, E. Feghali, R. Wells

Minutes: Chairman (Burns) welcomed all at 4:30 PM and meeting began with a recap of the year's enrollment and graduation numbers. Incoming enrollment numbers were very strong which continues a trend from the 2003-04 academic year. See table below.

	SU	EF	LF	WI	SP	TOTAL
2001-02	617	1228	950	1294	1259	5348
2002-03	675	975	956	1148	1001	4755
2003-04	648	1029	1116	1207	1106	5106
2004-05	634	1170	919	1365	1060	5148
2005-06	615	1267	1046	1407	1335	5670
2006-07	484	1277	1192	1547	1310	5810
2007-08	712	1568	1467	1620	1448	6815

The CET program graduated almost 50 students this academic year. The next couple of years may see slight increase in graduates which would reflect the growth in enrollment.

The advisors spoke of the tough economic times and how most companies if not "cutting" employees are not hiring for the foreseeable future. Surveying companies, specifically those in the residential market, have been extremely hard hit. Companies are basically in a survival mode. This affects co-op placement and several ideas were floated as to how we might be able to get through these times. Cost-sharing with associations picking up part of the tab was suggested as was a "course" that could give students experience in the workplace although they would not be paid.

Although the curriculums in each major reported no major changes each major noted the new things they were incorporating in the delivery of courses. Discussion centered around the move towards BIM-related courses and topics in both the CETC and CETA majors. Chairman Burns agreed to create an electronic survey of employers/co-op employers to get

feedback on where the BIM movement is heading in the future. Burns stated that he would send it out in the winter/spring.

The Board reviewed outcome information and discussed latest information gathered from the one-year graduate surveys. Board was impressed as to the overall satisfaction that graduates seem to have with the program.

Steve Cahill spoke of the launch of the Tri-state Surveyors Advisory Board (TSAB) that was started in October. The TSAB's mission is to be the leading advocate of quality in the survey profession through promotion and support of surveying education programs in the Tri-State region. Steve told the board they are hoping to have a scholarship, mentoring and other committees.

Meeting adjourned at 6:00.

Civil Engineering Technology Advisory Board Meeting Minutes

Date: May 23, 2007 (4:00 PM)

Location: Cincinnati State, Room 143A

Attending: B. Payne, S. Cahill, M. Haney, S. DeSalvo, P. Cooper, D. Sharp, D. Krehbiel, B. Rutz, R. May, J. Gothard, T. Burns, J. Buttelerwerth, G. Armstrong, C. Morman, J. Decker, E. Feghali, R. Wells

Minutes: Chairman (Burns) welcomed all at 4:10 PM and meeting began with a recap of the year's enrollment numbers. Incoming enrollment numbers were up over the year prior by approximately 2.5% and almost 13% from 2 years prior. See table below.

	SU	EF	LF	WI	SP	Total
2001 - 02	617	1,228	950	1,294	1,259	5,348
2002 - 03	675	975	956	1,148	1,001	4,755
2003 - 04	648	1,029	1,116	1,207	1,106	5,106
2004 - 05	634	1,170	919	1,365	1,060	5,148
2005 - 06	615	1,267	1,046	1,407	1,335	5,670
2006 - 07	484	1,277	1,192	1,547	1,310	5,810

Growth in CM has been especially strong and Burns noted that accreditation and focus on enhancing program quality play a role. The CET program graduated 41 students in the prior year which seems to be average over the last 10 years or so. The next couple of years may see slight increase in graduates which would reflect the growth in enrollment.

Although the curriculums in each major reported no major changes each major noted the new things they were incorporating in the delivery of their courses. Noelle Grome provided the report on cooperative education and asked those advisors who were also coop employers to provide feedback the state of industry as well as perceived opportunities/barriers for generating new jobs. Carol Morman discussed the activities of the ASCE student club in the past year including the Regional competition at Ohio State and the leadership conference. Certificates offered by CET were discussed. George Armstrong spoke about the Advanced Surveying Certificate which has gone fully "online" with the collaboration out of NKU's Construction Management Department. John Buttelerwerth spoke about the Construction Safety Certificate which has seen low enrollment but is hoped to kickoff in Early Fall. This certificate is aimed at providing personnel in the construction industry with in-depth knowledge of safety procedures, risk management and safety planning so that they will add value to their organizations.

The Board reviewed graduate Survey information and Tom Burns discussed the need for program outcome review by the Board. Some discussion of the faculty review of re-sequencing the alternating schedule of class and coop ensued. Meeting ended with an open discussion of the need for the program to start preparing for the usage of Building

Information Models (BIM) in industry. In the short run, this probably means incorporating Revit into the CAD curriculum and may (at some point) mean replacing AutoCAD with Revit and/or adding another course. Burns asked the industry members to keep the CET faculty abreast of how they are using this new technology on projects and this may include inviting faculty to project meetings or making their industry experts available for informal learning sessions.

Meeting adjourned at 6:00.

Civil Engineering Technology Advisory Board Meeting Minutes

Date: May 24, 2006 (3:45 PM)

Location: Cincinnati State, Room 143A

Attending: B. Payne, S. Cahill, D. Wireman, D. Drury, P. Cooper, D. Sharp, T. Walker, T. Burns, J. Buttelwerth, G. Armstrong, C. Morman, J. Decker, E. Feghali

Minutes: Chairman (Burns) welcomed all at 3:45 PM and meeting began with a recap of the year's enrollment numbers. Incoming enrollment numbers were up over the year prior and total enrollment as measured by FTE's showed strong (approx. 20%) increase from year prior. See table below.

Major	Average Full-Time Equivalents (FTE) per term				
	2005-06	2004-05	2003-04	2002-03	2001-02
CET-Architectural	42.4	37.5	42.6	37.3	43.7
CET-Construction Mgt	51.5	40.1	42.0	42.4	39.3
CET-Surveying	24.2	17.7	15.2	17.0	18.5
Adv. Surveying Certificate	0.8	2.2	2.3	X	X
Land Surveying Certificate	1.0	1.5	1.2	0.9	0.9
Totals	119.9	99.0	103.3	97.6	102.4

Reasons for growth may be many, but Burns noted that accreditation and focus on enhancing program quality play a role. The CET program continues to be one of the largest programs nationally in terms of CET graduates.

Each major noted the new things they were incorporating in their curriculums. The OSHA 10-hr course has been officially added to each curriculum in the upcoming year, although students have been taking it this year before they co-op. George Armstrong spoke about the collaboration to develop a BS degree with a Surveying focus offered out of NKU's Construction Management Department. George noted that this program is transitioning to being offered in distance / online format in Fall 2006 which should open the program to students throughout the three state area. Paul Cooper reported that initial enrollment was quite good and that the program hopes for increased enrollment as it is offered in the distance format. Advisory Board members were supportive of this development. Elias Feghali and Paul Cooper spoke of the likely approval of a new Architectural Technology program at NKU as well. This would give architectural majors at Cincinnati State another pathway to reach a BS degree. John Buttelwerth spoke about the Construction Safety Certificate being developed in partnership with Cincinnati State's Workforce Development center. This certificate is aimed at providing personnel in the construction industry with in-depth knowledge of safety procedures, risk management and safety planning so that they will add value to their organizations. First classes for the certificate will be offered by year's end.

Tom Burns ended the meeting by reviewing the CET program mission and educational outcomes with the advisors. He reviewed the results of recent assessments (graduate surveys) and reminded advisors that their input in modifying and updating these is needed. Meeting adjourned at 5:00 PM at ATLC auditorium to hear Dean DeNu speak about the ETD-ITD transition to the “Center for Innovative Technologies”. This will be our new “division name”.

Many attended the dinner held at 6:00.

III. CET Strategic Plan

The purpose of this Strategic Plan is to establish a comprehensive vision for managing Civil Engineering Technology – Construction Management’s resources in a manner that supports and promotes the fulfillment of its mission. This document sets out a plan to establish the strategy that CETC will pursue over the next five years. That strategy will result in a net growth of the Civil Engineering Technology – Construction management and a solidification of its role in the civil/construction arena in Greater Cincinnati. This plan aims to describe the mission statements and outline the strengths, weaknesses, opportunities and threats which will need to be addressed in order to reach our goals. The plan will describe the personnel that will be involved, the data that will be collected, and outline the implementation plan, general timeline, and evaluation procedures.

Internal Factors

Internal characteristics of the Civil Engineering Technology – Construction Management currently are as follows:

Faculty – The faculty are all tenured veterans who have a passion for their particular area of expertise and the well-being of the program in general is a STRENGTH. Average age among faculty is approximately 50 and, therefore, several are within a decade or so from possible retirement and the advancing age of the faculty carry risks to continuity (THREAT).

Facilities – The newly renovated Room 142 area gives the CET department a good amount of dedicated space (Room 143, Room 130, concrete lab) which will serve the program well into the future (STRENGTH). This room and all others are “SMART” which is a great advantage to utilize various mediums in course delivery (STRENGTH). The college has opened the ATLC building in 2004 which is viewed favorably by students and gives them decent opportunities for food and recreation (STRENGTH).

Calendar – The college has committed to change to a semester-based system starting in fall 2012. The planning process has begun and this will be a substantial change in the course and co-op delivery for the CETC major. There is the possibility that our students will have difficulty adapting to the extended length of a semester from an academic and financial perspective which could lead to higher rates of attrition (THREAT). The co-op program in CET may benefit from the change to semesters as some employers may favor the extended time period which requires less turnover (OPPORTUNITY). Similarly, the co-op program may suffer from the change as other employers like the term based system for a variety of reasons (THREAT). Additionally, the semester system will essentially run in concurrent timeframes as both NKU and UC. Therefore, the number of co-op slots in the CET arena will be potentially sought after by students at these other institutions during the same timeframe leading to a direct competition. While our best students will compete well, the second-tier students may have difficulty (WEAKNESS). Another possibility is that the conversion to semesters will not allow the same quantity of material to be taught to our CET students thereby decreasing their exposure to information (THREAT).

Technology – Building Information Modeling is impacting the civil/construction industry in a very large way. The college has always supplied CET computer labs with the latest version of AutoCAD and now this extends to Revit Architecture, Structure, and MEP

and Civil 3D. This positions the CET program favorably for addressing the needs of industry in the next 5 years (STRENGTH).

External Factors

Important external factors which the Civil Engineering Technology – Construction Management is currently facing and will face in the near term are:

Student Data - Two-year colleges comprise the largest single sector of American postsecondary education, enrolling more than 40 percent of all undergraduates (Horn and Nevill 2006). The Digest of Education Statistics projects that approximately 18.2 million students were enrolled in colleges across the U.S. in 2008. This number is expected to increase to over 20 million by 2017. A study by the Engineering Workforce Commission (“Engineering and Technology Enrollments”) reported in the Fall of 2007:

- 1237 full-time students were enrolled in two-year construction technology programs
- 2232 full-time students were enrolled in two-year civil engineering technology programs

This increase in college enrollment from a national perspective will not be driven in Ohio based upon an inflow of high school graduates. The National Center for Education Statistics projects Ohio will have a 6.3% *decrease* in high school graduates in 2017 from 2004 levels. Other sources project a stable or very slight increase in graduates. This is a THREAT.

Online Learning – Online learning has exploded across higher education. In a 2007 report (“Online Nation: Five Years of Growth in Online Learning” by the Sloan Consortium) found that Online enrollments have continued to grow at rates far in excess of the total higher education student population. The statistics they cite are as follows:

- Almost 3.5 million students were taking at least one online course during the fall 2006 term; a nearly 10 percent increase over the number reported the previous year.
- The 9.7 percent growth rate for online enrollments far exceeds the 1.5 percent growth of the overall higher education student population.
- Nearly twenty percent of all U.S. higher education students were taking at least one online course in the fall of 2006., albeit at slower rates than for previous years.

Whereas all types of institutions of higher education have shown substantial growth, two-year institutions have the highest growth rates and account for over one-half of all online enrollments for the last five years. The following is a table which outlines this growth:

	Online Enrollment Fall 2002	Online Enrollment Fall 2006	Increase Fall 2002 to Fall 2006	Compound Annual Growth Rate
Under 1500	100,984	217,445	116,461	21.1%
1500 to 2999	135,715	332,840	197,125	25.1%
3000 to 7499	385,812	742,415	356,602	17.8%
7500 to 14999	394,337	807,700	413,363	19.6%
15000+	586,122	1,387,982	801,860	24.1%

This represents an OPPORTUNITY for the CET program.

Economy – The economic downturn in late 2008 has caused high unemployment which has driven many displaced workers to look for new skills and knowledge. While Cincinnati State has seen a large growth in enrollment, the CETC major has seen its numbers be relatively stable or slightly lower. This civil/construction arena has been publicized as being hard-hit, and therefore potential students may be wary of entering a program perceived as being “down” among high-school students and their parents. An OPPORTUNITY exists as the region emerges from the recession, the industry will be “attractive” again.

Reorganization of Higher-Ed in Ohio – The current administration in the State of Ohio has engaged in a series of activities to make Ohio a more educated state. Making a citizen’s education more affordable has put an emphasis on streamlining the educational pathway from the secondary level into college. The Ohio Board of Regents Strategic Plan calls for increasing associate degree graduates in Ohio from 18,156 (FY2006) to 28,000 by 2017. This emphasis on associate degree programs could portend funding benefits and a general awareness of the vital role community colleges play in Ohio. Ease of transferability between high school and college and between colleges has been one catalyst in the move towards a semester calendar. The calendar change could be the first step towards homogenizing of curriculum throughout the state (common curriculums, course numbering, etc). This would restrict the autonomy of the program which is a THREAT.

State Budget – Related to the economy, the state budget is in bad shape due to a decrease in revenue. The CETC major has not been severely impacted by this yet but this remains a serious THREAT which could impact the ability to keep current with technology and professional development.

Based upon this analysis, it is reasonable that we should try to reduce or eliminate the impact of threats facing the CET program while embracing the opportunities over the next five years.

Responding to Threats and Opportunities

The upcoming semester conversion is the nexus of many of the threats to the program that loom on the horizon. To reduce the threat posed by this calendar change we will have to (1) focus on retaining students, especially in the first year, (2) raise awareness of upcoming change with co-op employers and review preferences, and (3) maintain curricular quality.

Although the threat posed by possible budget cuts from the state may not be reduced by our actions, we should increase outreach to industry organizations to help supplement funding for scholarships, equipment and supplies. We should work to make industry aware of the potential impact on the CET program of possible cuts. More importantly, we should all make industry aware of the threat posed to our students and curriculum should the State move towards a common curriculum in the future.

The threat posed by the flat or declining number of high schools graduates should be reduced by (1) active outreach to high schools, and (2) active outreach to non-traditional students.

The primary opportunity facing the CETC major in the next 5 years is the development of a series of online courses within the associate degree curriculum. Striving to meet the needs of more non-traditional students while maintaining curricular quality, the CETC major should increase offerings of virtual, hybrid, and web-enhanced classes. We possess the great faculty and the technology to make this successful. The opportunity to take advantage of our technological strengths should be reinforced by active professional development by faculty in emerging areas.