# REQUEST FOR COURSE CHANGE (MAJOR AND MINOR)

**Complete 1a – 1f & 2a – 2c. Fill out the remainder of the form as applicable for items being changed.**

| | | | | | | |
|---|---|---|---|---|---|---|
| **1.** | **General Information.** | | | | | |
| **a.** | Submitted by the College of: | Engineering | | Today's Date: | 3/1/2010 | |
| **b.** | Department/Division: | Civil Engineering | | | | |
| **c.** | Is there a change in "ownership" of the course? | | | YES ☐ | NO ☒ | |
| | If YES, what college/department will offer the course instead? | _____ | | | | |
| **d.** | What type of change is being proposed? | ☒ Major | ☐ Minor[1] (place cursor here for minor change[OSC1] definition) | | | |
| **e.** | Contact Person Name: | Nikiforos Stamatiadis | Email: | nstamat@engr.uky.edu | Phone: | 7-8012 |
| **f.** | Requested Effective Date: | ☒ Semester Following Approval | OR | ☐ Specific Term[2]: | _____ | |
| **2.** | **Designation and Description of Proposed Course.** | | | | | |
| **a.** | **Current Prefix and Number:** | CE 429 | *Proposed Prefix & Number*: | *same* | | |
| **b.** | **Full Title:** | Civil Engineering Systems Design | *Proposed Title*: | *same* | | |
| **c.** | **Current Transcript Title** (if full title is more than 40 characters): | _____ | | | | |
| **c.** | *Proposed Transcript Title (if full title is more than 40 characters)*: | _____ | | | | |
| **d.** | **Current Cross-listing:** | ☐ N/A | OR | Currently[3] Cross-listed with (Prefix & Number): | _____ | |
| | *Proposed –* ☐ *ADD[3] Cross-listing (Prefix & Number):* | _____ | | | | |
| | *Proposed –* ☐ *REMOVE[3, 4] Cross-listing (Prefix & Number):* | _____ | | | | |
| **e.** | **Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours[5] for each meeting pattern type.** | | | | | |
| Current: | 3 Lecture | 3 Laboratory[5] | _____ Recitation | _____ Discussion | _____ Indep. Study | |
| | _____ Clinical | _____ Colloquium | _____ Practicum | _____ Research | _____ Residency | |
| | _____ Seminar | _____ Studio | _____ Other – Please explain: | _____ | | |
| *Proposed*: | *2 Lecture* | *3 Laboratory* | _____ *Recitation* | _____ *Discussion* | _____ *Indep. Study* | |
| | _____ *Clinical* | _____ *Colloquium* | _____ *Practicum* | _____ *Research* | _____ *Residency* | |
| | _____ *Seminar* | _____ *Studio* | _____ *Other – Please explain:* | _____ | | |
| **f.** | **Current Grading System:** | ☒ Letter (A, B, C, etc.) | ☐ Pass/Fail | | | |
| | *Proposed Grading System:* | ☒ *Letter (A, B, C, etc.)* | ☐ *Pass/Fail* | | | |
| **g.** | **Current number of credit hours:** | 4 | *Proposed number of credit hours:* | *3* | | |

[1] See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair*. If Chair deems the change as "not minor," the form will be sent to appropriate academic Council for normal processing and contact person is informed.
[2] Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
[3] Signature of the chair of the cross-listing department is required on the Signature Routing Log.
[4] Removing a cross-listing does not drop the other course – it merely unlinks the two courses.
[5] Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab meeting. Lab meeting generally represents at least two hrs per wk for a semester for 1 credit hour. (See *SR 5.2.1.*)

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| | | | | |
|---|---|---|---|---|
| **h.** | **Currently, is this course repeatable for additional credit?** | | YES ☐ | NO ☒ |
| | *Proposed to be repeatable for additional credit?* | | *YES* ☐ | *NO* ☒ |
| | *If YES:* | *Maximum number of credit hours:* _____ | | |
| | *If YES:* | *Will this course allow multiple registrations during the same semester?* | *YES* ☐ | *NO* ☐ |
| **i.** | **Current Course Description for Bulletin:** | no change | | |
| | *Proposed Course Description for Bulletin*: | *no change* | | |
| **j.** | **Current Prerequisites, if any:** | Last semester of undergraduate study in civil engineering | | |
| | *Proposed Prerequisites, if any:* | *Last semester of undergraduate study in civil engineering* | | |
| **k.** | Current Distance Learning(DL) Status: | ☒ N/A | ☐ Already approved for DL* | ☐ *Please Add*[6] ☐ *Please Drop* |
| | *If already approved for DL, the Distance Learning Form must also be submitted unless the department affirms (by checking this box ☐) that the proposed changes do not affect DL delivery. | | | |
| **l.** | **Current Supplementary Teaching Component, if any:** | ☐ Community-Based Experience | ☐ Service Learning | ☐ Both |
| | *Proposed Supplementary Teaching Component*: | ☐ *Community-Based Experience* | ☐ *Service Learning* | ☐ *Both* |
| **3.** | **Currently, is this course taught off campus?** | | YES ☐ | NO ☒ |
| | *Proposed to be taught off campus?* | | YES ☐ | NO ☒ |
| **4.** | **Are significant changes in content/teaching objectives of the course being proposed?** | | YES ☒ | NO ☐ |
| | If YES, explain and offer brief rationale: | | | |
| | *Certain contents of the course are relocated into another proposed course (CE 329) that will cover communications and team activities. This new course will be offered earlier in the curriculum to benefit students thorughout their entire CE education. The course teaching objectives and learning outcomes remain the same.* | | | |
| **5.** | **Course Relationship to Program(s).** | | | |
| **a.** | **Are there other depts and/or pgms that could be affected by the proposed change?** | | YES ☐ | NO ☒ |
| | If YES, identify the depts. and/or pgms: _____ | | | |
| **b.** | **Will modifying this course result in a new requirement[7] for ANY program?** | | YES ☐ | NO ☒ |
| | If YES[7], list the program(s) here: _____ | | | |
| **6.** | **Information to be Placed on Syllabus.** | | | |
| **a.** | ☐ Check box if changed to 400G or 500. | If changed to 400G- or 500-level course you must send in a syllabus and *you must include the differentiation* between undergraduate and graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) establishing different grading criteria in the course for graduate students. (See *SR 3.1.4*.) | | |

[6] You must *also* submit the Distance Learning Form in order for the course to be considered for DL delivery.

[7] In order to change a program, a program change form must also be submitted.

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Signature Routing Log

**General Information:**

Course Prefix and Number: CE 429

Proposal Contact Person Name: Nikiforos Stamatiadis Phone: 7-8012 Email: nstamat@engr.uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

**Internal College Approvals and Course Cross-listing Approvals:**

| Reviewing Group | Date Approved | Contact Person (name/phone/email) | Signature |
|---|---|---|---|
| CE Education Group | 2/9/11 | N. Stamatiadis / 7-8012 / nstamat@engr.uky.edu | |
| Civil Engineering | 2/25/11 | George Blandford / 7-1855 / geblandford@engr.uky.edu | George E Blandford |
| Engineering Faculty | 11/28/11 | Richard J. Sweigard rsweigar@engr.uky.edu 7-8827 | |
| | / / | | |
| | / / | | |

**External-to-College Approvals:**

| Council | Date Approved | Signature | Approval of Revision[8] |
|---|---|---|---|
| Undergraduate Council | 2/14/2012 | Sharon Gill | |
| Graduate Council | | | |
| Health Care Colleges Council | | | |
| Senate Council Approval | | University Senate Approval | |

Comments:

[8] Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

| | |
|---|---|
| **COURSE:** | CE 429 Civil Engineering Systems Design |
| **TIME and PLACE:** | Tuesday, Thursday 12:30-1:20, Wednesday lab 2:00-4:50. |
| **INSTRUCTOR/FACILITATOR:** | Scott A. Yost |
| **TEACHING ASSISTANT:** | CE Graduate Student |
| **COURSE PREREQUISITE:** | Last semester of undergraduate study in civil engineering |
| **REQUIRED TEXT:** | ***Engineering Design: A Project-Based Introduction, 3rd edition*** by Clive L. Dym and Patrick Little |
| **REFERENCE TEXTS:** | David A. Kolb, *Learning Style Inventory*, McBer & Company, Boston, MA (1985).<br>Heather Silyn-Roberts, *Professional Communications: A Handbook for Civil Engineers,* ASCE Press, Reston, VA (2005).<br>David Beer and David McMurrey*, A Guide to Writing as an Engineer*, John Wiley & Sons, New York, NY (2009). |

**COURSE GOAL**:

To provide students an in-depth understanding of the multidisciplinary nature of civil engineering projects; to allow students to become familiar with various stages of project development and design; and to provide the students a hands on experience with a real life project.

**COURSE DESCRIPTION:**

CE 429 is a unique and hopefully rewarding experience for seniors. The class focuses on synthesizing the taught material in individual civil engineering courses into a civil engineering project, which includes design, environmental concerns, cost analysis, construction scheduling as well as the project roles of the owner (client), design team and contractor. The course introduces students to the process of project development including planning, design, and construction. Students work in teams to complete the course requirements.

**COURSE LEARNING OUTCOMES:**

Students will be evaluated on submitted material, oral presentations, and final report on their ability to accomplish the following course objectives:

1. Understand of the classical Client/Engineer/Contractor project structure typically encountered in practice by preparing a detailed analysis of the client, engineer's and contractor's roles.
2. perform the programming and planning phases of a project by performing a situation analysis to identify client needs and preparing a technical response to the client's needs.
3. design a system, component, or process to meet desired needs by conducting an engineering analysis and prepare a design to satisfy client needs.
4. identify, formulate, and solve engineering problems by describing situations; identifying and prioritizing problems; identifying and evaluating potential problem solutions; selecting effective problem solutions; identifying and evaluating potential adverse consequences for problem solutions; and preparing implementation plans.
5. function on multi-disciplinary teams by planning and executing all assignments on a team basis and using management and supervisory skills to lead the work on a portion of the term assignment.

6. communicate effectively by preparing and submitting technical reports, preparing and making formal, oral presentations, and presenting material in figures, drawings, graphs, etc.
7. provide the broad education necessary to understand the impact of engineering solutions in a global and societal context by identifying, analyzing, and addressing the environmental, legal, political, and social factors influencing the selection of problem solutions.
8. gain knowledge of contemporary issues by covering contemporary issues such as the deteriorating civil infrastructure, sustainability and quality-based selection of professional services.
9. use the techniques, skills, and modern engineering tools necessary for engineering practice by using appropriate computerized project planning, management, and design tools and developing an awareness of techniques used in civil engineering practice.

**COURSE COMPONENTS, REQUIREMENTS, AND GRADING**:

**Course Organization**

This class utilizes small learning teams. Some class time and most of the graded assignments will involve work in these teams. Class activities will include team quizzes, structured exercises, and workshops designed and managed by the teams. There will be an exam that will be performed individually

The class will be conducted using lecture, discussion, and laboratory formats. It is imperative that reading assignments be completed before the class in which the material is to be discussed. **Both individual and team assessment quizzes will be given on the reading assignments.**

**Lectures**

Lectures in a design course are fairly important, since they present directions for issues to be addressed, introduce new concepts, and discuss various issues for the completion of the project. Attendance and participation in discussions is a MUST (let alone the fact that the instructor will be positively impressed). *If you missed class, you missed important information!!*

***Questions and comments from students are welcome at any time during class.***

**Course Requirements**

The work to be required in this course will consist of the following:

| | |
|---|---|
| 1. Professionalism | 7% |
| 2. Team Deliverables | 80% |
| a. Team Reports (Team/Individual Grade) | |
| • Report I – Statement of Qualifications | 5% |
| • Report II – Preliminary Design | 17.5% |
| • Report III – Environmental Impact Statement | 7.5% |
| • Memo I – Priorities, and Costs | 7.5% |
| • Final Report | 17.5% |
| • Team Journal (Meeting Agendas/Minutes/Action Items) | 5% |
| b. Team Presentations (Individual Grade) | 10% |
| c. Team Behavioral Criteria (Team Grade) | 5% |
| d. Team Behavioral Evaluation (Individual Grade) | 5% |
| 3. Dym and Little Exam (Individual Grade) | 13% |

**Professionalism**

One aspect of professionalism involves doing work, attending meetings, etc. for the company or firm that pays your salary, if you are the owner you are stuck doing all the lousy chores. This is most certainly true in the university setting as well. Class attendance and participation is partially how you demonstrate professionalism in CE 429 unless there is an emergency that prevents you from attending (excused absence for this class). For **each unexcused absence** from an assigned class lecture **on Tuesday or Thursday**, you will **lose one and half points** and for **each unexcused absence from an assigned lab class on Friday**, you will **lose two points**. Starting today, **you have a total of 8 points assigned to professionalism** – one more than the 7% this grade constitutes or **one bonus point**. Make sure that you arrive on time! Later arrivals are disruptive to the class and unprofessional for the speaker (especially guests).

**NOTE: You can earn a negative score in Professionalism** if you miss a sufficient number of classes. The instructor reserves the right to adjust your grade depending on your performance within your team and overall effort and contribution to the learning environment.

Another way for demonstrating professionalism is through your **appearance**. This is your last semester and therefore you need to get into the habit of dressing appropriate for your work. It is expected that you will attend the class in a casual, yet professional dress code.

**Team Deliverables**

All materials submitted as part of the assignments are to be of professional quality. ***Everything*** must be prepared on a computer. Handwritten materials will not be accepted. This includes appendices.

Each technical report should be structured in the following manner:

- All submitted reports must include a separate transmittal (cover) letter.
- All work is to be submitted on 8½" x 11" paper except for project drawings.
- Margins are 1.5" for the left margin and 1" for the rest.
- Title/Cover page.
- Table of contents and lists of tables, figures and drawings, if any exist.
- Executive Summary
- Introduction, Summary and Appendices.
- Specific sections as required by the individual reports (details given with each assignment)
- All drawings/figures must include borders and a caption (below figure).
- All tables must include a caption (above table).
- All tables/figures must be placed appropriately.
- Appendices must have a description at the beginning of each one, and may have a table of contents if it has significant amount of information.
- If the drawing is larger than 8½" x 11", it must be drawn on larger size paper and folded such that it can be bound as part of the report. For example, 11" x 14" or 11" x 17" paper can be folded and bound with 8½" x 11" paper.
- The report must be bound and include front and back covers.
- The double-spaced body of the report must be in the 11-point Arial font.
- References must adhere to the Modern Language Association (MLA) standard, which can be found at http://www.cws.illinois.edu/workshop/writers/citation/mla/

Failure to comply with these specifications may render the report non-responsive and the report will receive a grade of zero.

One "Statement of Qualifications", three intermediate reports and a final report are required in this course. Team members will rotate through the roles of the Project Manager, Recorder (must put together the agenda, prepare the meeting minutes, and action items; arrange for the meeting; etc.), Information Resource Person, Working Draft Writer, and Editor. Distribution of effort will be rotated through the four phased reports as well as the final report. An electronic submission (in PDF format) is required for each report as well as a hard copy. The hard copy of the phase report must be submitted following the guidelines given above and include as a separate volume any team meeting agendas, minutes (include discussions) and action items. The reports will be graded and returned to the teams. The final report is a combination of the previous reports, plus the appropriate additional information. Your team will address any deficiencies in the phase reports as part of the compiling the final report. A significant portion of the final report grade will be based on how well you improved any deficiencies. Furthermore, if the team does not agree with any comment provided by the reviewer, the team must explain its rationale/justification on a separate document and submit within one week of receiving the Phase report feedback/grade. Finally, **all materials in the final report must be included in a single PDF document entitled Team # - Title of Final Report.**

**Teamwork**

Since the course is team-based, your contribution to the team's performance is a factor in your final grade. This is done to reflect the fact that all members of a team do not contribute equally to the team's performance. Therefore, other members of your team will evaluate 5% of your overall semester grade, plus give input to your grade on individual projects. There is some discussion about evaluations at the end of the syllabus. **One team assignment will be to develop its own criteria for evaluation using a soon-to-be-provided form as a starting point**.

Because all work in the course will be performed on a team basis, it is imperative that students be cooperative and productive members of the team. However, there may be a possibility that an individual team member will behave in a dysfunctional manner by not participating, being disruptive, etc. In that event, the team may submit a request to the instructor to mediate the situation. The instructor will meet with the entire team to determine the facts of the situation and work with the team members to resolve the situation. If the situation cannot be resolved, the instructor will conduct a secret ballot vote of the team members as to whether the problem individual should be removed from the team. If a majority of the team believes the member should be removed from the team, the instructor will do so. The individual removed from the team will then constitute a team of one and be responsible for the performance of all the work required of each team.

If an individual's failure to function as an effective team member is not brought to the instructor's attention until the end of the term or when the team evaluation is conducted, the instructor reserves the right to give that individual a zero (0) for his/her score on the work performed by his/her team, and lower the professionalism grade (before the attendance score is applied) of the entire team for lack of diligence.

**Course Grades:**

Final grades will be assigned according to the grading scale as shown below:

| | |
|---|---|
| A | 90 and above |
| B | 80 – 89 |
| C | 70 – 79 |
| D | 60 – 69 |

E 59 and below

The University of Kentucky describes these grades in the University Bulletin as follows:
**A** – Represents exceptionally high achievement due to aptitude, effort, and ***intellectual initiative*** [emphasis added].
**B** – Represents high achievement due to ability and achievement.
**C** – Represents average achievement.
**D** – Represents minimum passing grade.
**E** – Represents unsatisfactory performance and indicates failure in the course.

If you disagree with the grading of an individual assignment, you must submit a written statement of your disagreement and the assignment to the instructor within two class periods, after the instructor returns the graded assignment. The assignment will then be completely reviewed.

**GRADES WILL NOT BE ADJUSTED AT ANY TIME USING ANY "CURVE" SCHEME**

Undergraduate students will be provided with a Midterm Evaluation (by the midterm date) of course performance based on the grades earned and the criteria in the syllabus.

**DEADLINES:**

Late assignments will be accepted only in case of an appropriately verified excused absence; otherwise a grade of zero (0) will be given for the assignment. In the event of absence you are responsible for learning about any changes in the due dates of the homework and progress reports. These absences do NOT allow you to submit late homework or progress reports.

**EXCUSED ABSENCES:**

Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

**PHILOSOPHY:**

This course will be unlike any other course that you have taken within the Department of Civil Engineering. It is designed that way.

The basic principles upon which the course will function are:

- Organized teams will operate as a functioning civil engineering firm.
- Your firm will have a client (owner), for whom your firm is to develop a design. The client will come to campus for a team interview to obtain desired information.
- You must identify the client's wants/needs and develop technical responses to satisfy them.
- The members of your team constitute its primary resources. You are free to draw upon other resources as necessary.

- One of the objectives of the course is to have you recognize what your team does not know and then identify how to obtain that knowledge.
- This course does not to provide you with the technical knowledge to perform design. It is to provide you knowledge of the design process.
- **The instructor's job in this class is not to provide you with all the information that you request**. Instructors will serve as the client's representatives to your firm and will provide answers to your questions about the client's needs, wants and related information.
- The instructor will provide information about course requirements, schedules, formats, etc.
- The instructor will teach the sections of the course dealing with the design process. The instructor will not teach other technical areas of design. Practicing engineers will provide guest lectures on specific topics.
- Just as your team draws upon the skills of its members, there is a faculty team that is available to answer your technical questions. You are encouraged to approach other faculty members in the department with your questions.
- It is not possible for one person to be fully knowledgeable in all areas of civil engineering. A person whose expertise is in steel design may know little about water runoff. Thus, the faculty team concept.
- The course is designed as an exercise in cooperative learning, which is an active learning structure whereby students work together in small groups to accomplish shared learning goals and to maximize their own and each other's learning.
- The goals for the course are
    - Provide information on concepts,
    - Improve understanding of the concepts,
    - Master and apply these basic concepts in solving the course project problems, and
    - Develop the ability to solve new problems with the skills learned.

**PLAGIARISM & CHEATING:**

Refer to the Civil Engineering Undergraduate Handbook for policy and applications or the Code of Student Rights and Responsibilities, which can be found at the following website: http://www.uky.edu/Ombud.

**ACADEMIC ACCOMODATION DUE TO DISABILITY:**

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

**OTHER ITEMS:**

Please note that the use of any tobacco products during the class period is not allowed.

**MY EXPECTATIONS:**

The following is a list of my expectations regarding your attendance, progress, and participation in the class. A similar list with your expectations from me will be compiled to create the basis for an enjoyable semester. Thus, I expect you:

1. to come on time and attend the class lectures
2. to turn your assignments in time and at the assigned due dates
3. to be attentive during the class lectures and actively participate in discussions
4. to complete the reading assignments and come prepared to class

5. to be able to complete assignments (homework and projects) and exams
6. to think critically and be creative as future civil engineers
7. to learn what is deemed necessary for completing your engineering education
8. to become familiar with the class subject
9. to not be afraid to ask questions and express your opinion

I want you to become "critical thinkers" and not "number-crunchers"

**TENTATIVE SCHEDULE**:

In the absence of announced deviations due dates for the assignments given below are correct. Readings SHOULD BE DONE PRIOR to the lecture. Additional readings may be required and handouts will be provided as needed.

| Week | Topic | Instructor |
|---|---|---|
| 1 | Introduction<br>Lab: Presentation & technical writing overview | CE Faculty |
| 2 | Project overview<br>Lab: Site visit | Consultants |
| 3 | Quality based selection<br>Lab: data collection | CE Faculty |
| 4 | **Team presentations - Report I submittal**<br>Design Team's Statement of Qualifications | CE Faculty/ Consultants |
| 5 | Dym and Little Chapters 1, 2 & 3<br>Lab: Team reviews | CE Faculty |
| 6 | Dym & Little: Chapters 4,5 & 6<br>Lab: Project related stakeholders | CE Faculty |
| 7 | Dym & Little: Chapters 7, 8 &10<br>Lab: Project questions | CE Faculty/ Consultants |
| 8 | Environmental Impact Studies<br>Lab: Team work on stakeholder priorities | Consultant |
| 9 | Leadership concepts<br>Lab: Open for project work | Consultant |
| 10 | **Team presentations - Report II submittal**<br>Preliminary design | CE Faculty/ Consultants |
| 11 | Scheduling & Economic Analysis for Engineering Projects<br>Lab: Team work on environmental issues | CE Faculty |
| 12 | Civil engineering as a business<br>Lab: Team work on priorities and cost estimates | CE Consultant |
| 13 | **Report III submittal**<br>Environmental Impact Statement | CE Faculty |
| 14 | Forensic engineering<br>Lab: Open for project work | CE Faculty |
| 15 | **Memo I submittal**<br>Cost estimates and priorities | CE Faculty |
| 16 | **Team presentations – Final report submittal** | CE Faculty/ Consultant |

## Team Evaluation Procedure

All evaluations are to be valued, to be performed to the best of your ability, and to be an honest assessment of behavior, performance, and effectiveness. All evaluations are to be held in the strictest confidence.

The team evaluation procedure is:

A) **Behavior Evaluation**

- This evaluation is used to evaluate a team member and is based on the unique criteria established for your team.
- Although to be turned in to the instructor, this evaluation will be used only as feedback to individual team members for the purpose of improving the whole team's performance by helping each team member know their own strengths and weaknesses.
- The "Helping Behavior" evaluation is to be completed by team members, turned in to the instructor to be used in determining your overall semester grade (5%) and this may also affect an individual's project grade.
- Each team member will perform a "Behavior Evaluation" of all other team members. Use the form provided by the instructor. Your final team evaluation score will be determined using the behavior evaluation.
- In addition for the team's use, a normalized score for each team member **may** be determined and applied to each team member's team score.

B) **Phase report team grade evaluations**

- Each team will be awarded score for each of their phase report based on 100 points possible. This team score multiplied by the total number of members of the team, minus one, will be the total amount of points available to be awarded to the other individual team members.
- Each team member will then distribute these points to his/her individual team members based on individual contributions to fulfilling the requirements of his/her particular role for that specific phase of the project.
- Awarding of points to individual team members is not limited to a team member's contribution to effort alone, but may include understanding and inspiration, etc., considered helpful to the completion of the task.
- There is no upper limit on the points you can award someone else.
- No team member can be awarded a negative point score.
- The total points you award must equal the teams score multiplied by the number of members, minus one.
- The individual project grade will be determined by averaging the teammate's scores. The instructor reserves the right to remove both the highest and lowest score from the averaging process.