



# College of Engineering, Design and Computing

UNIVERSITY OF COLORADO DENVER

## **Sponsorship of Capstone Design Projects at University of Colorado, Denver, College of Engineering, Design and Computing**

### **Executive Summary**

Organizations such as companies, government agencies, research groups and nonprofits can sponsor capstone design projects in the College of Engineering, Design and Computing (CEDC) at the University of Colorado in Denver. These projects are either 1 semester (beginning in either August or December and finishing 5 months later) or 2 semesters long (beginning in August and finishing in May of the following calendar year). A small (typically 3-6 person) design team of senior undergraduate students assisted by one or more CEDC faculty will work on a project designated by the sponsor. Each member of the student team will spend 10-15 hours per week devoted to this project (each semester the team's work totals approximately 1/2 person-year's worth of work). Sponsors designate a technical point of contact for the project who will mentor the team, dedicating approximately an hour per week to this collaborative effort. Sponsors provide \$15,000 funding for the work. CEDC faculty and students can sign NDAs that protect the sponsor's privileged information and documents and transfer all the IP generated as part of the project to the sponsor. Students are allowed and encouraged to cite the capstone project/sponsor as part of their academic portfolio. Typical deliverables for the projects include extensive stakeholder research and data, a large variety of potential solutions to the problem, engineering analysis or simulations relevant to the project, models that highlight innovation opportunities in the product or user interactions, prototypes and/or engineering drawings showing feasibility of the ideas and testing results along with design briefs and design reports.

**COLLEGE OF ENGINEERING, DESIGN AND COMPUTING STUDENT PROGRAM FIXED PRICE AGREEMENT**

<b>UNIVERSITY:</b>	The Regents of the University of Colorado	<b>SPONSOR:</b>	
Address:	University of Colorado Denver Office of Contracts and Grants	Address:	
Administrative Contact:	Kathryn Brocko <i>Contracts Administrator Univ. of Colorado, Denver</i>	Administrative Contact:	
		Invoices sent to:	
Technical Contact/ Course Director:	Professor Kris Wood Senior Associate Dean of Innovation and Engagement Executive Director, Comcast Center College of Engineering, Design & Computing University of Colorado, Denver Kristin.wood@ucdenver.edu	Technical Contact/ Sponsor Mentor:	
Proposal No.	XXXXXXX	Award/PO No.	XXXXXXX

Project Title:			
Period of Performance:		Award Amount:	\$XXXXXX
Invoicing and Payments:	<input type="checkbox"/> \$XXXXX upon Execution of Agreement <input type="checkbox"/> \$XXXXX upon start of each Academic Semester (\$XXXXX on 09/01, \$XXXXX on 01/01)		
Remit payments to:	University of Colorado Denver, XXXXXXXXXXXXXXXXXXXXXXXX		

**TERMS AND CONDITIONS**

1. The Sponsor hereby awards a fixed price award to the University. The Statement of Work for this award is included as Appendix A – Course Project (“Course Project”). In its performance of the Course Project, each Party shall be an independent entity and not an employee or agent of the other Party.
2. Sponsor shall provide funding in accordance with the Invoicing and Payments section above. All invoices shall be submitted on University’s standard invoice, included as Appendix B - Invoice, and shall include University Proposal number and Sponsor Award/PO number. Sponsor agrees with the Capstone Design Guidelines and responsibilities in Appendix E.
3. TECHNICAL CONCERNS: Matters concerning the technical performance of this Course Project should be directed to the appropriate party’s Technical Contract, as identified above.
4. CONTRACTUAL CONCERNS: Matters concerning contractual issues should be directed to the appropriate party’s Administrative Contact, as identified above. Any such changes made to this subaward agreement require the written approval of each party’s Authorized Official. In the event that the Sponsor wishes for the University to take on additional costs above the Award Amount listed above, the University shall issue a unilateral written modification increasing the dollar amount of this Agreement. If the Sponsor desires to continue to support this Agreement in following years, the University shall issue a unilateral written modification on an annual basis to extend the Period of Performance end date, and incorporate the new Course Project and new Fee. The templated unilateral modification is included at Appendix C – Unilateral Modification.
5. REPORTS AND DELIVERABLES: The University will provide the Technical Contact with reports on the progress of the Course Project (“Reports”) in accordance with the agreed upon Course Project. All such Reports when delivered to Sponsor shall constitute the Deliverables.
6. EXPORT CONTROLS: There shall be no Export Controlled Information exchanged or utilized within this Course Project.
7. INTELLECTUAL PROPERTY
  - 7.1. Definitions:
    - “Intellectual Property” includes: a) any art or process, machine, manufacture, design or composition, or any new and useful improvement thereof, or any variety of plant, which is or may be patentable under the patent laws of the United States (“Inventions”), and b) original works of authorship fixed in a tangible medium of expression under the copyright laws of the United States (“Works”).
    - “Background Intellectual Property” shall mean all intellectual property owned or controlled by a Party prior to this Agreement or contemporaneously with this Agreement but not conceived or first reduced to practice or made during the performance of the Course Project or this Agreement. Each Party shall retain all right, title, and interest in its own Background Intellectual Property, except as otherwise provided herein.
    - “New Intellectual Property” shall mean all Intellectual Property conceived or first reduced to practice or made during the performance of this Agreement by the student(s) working on the Course Project.
  - 7.2. Intellectual Property is owned by the inventors and authors who created it, as determined by United States patent and copyright law. Before permitting a student to work on a Course Project, University shall obtain from each student participating in the Course Project an agreement to assign to Sponsor all right, title and interest to New Intellectual Property. Such

agreement to assign shall be in the form of the Acknowledgement of Student Obligations to Course Project Sponsors attached hereto as Appendix D – Student Acknowledgement. University shall cooperate with Sponsor’s reasonable requests for assistance to effect students’ assignment of New Intellectual Property to Sponsor. Upon written request by Sponsor, University shall provide a copy of each student’s signed Student Acknowledgement. The Student Acknowledgement is effective upon last date of signature or date that this Agreement is fully executed, whichever is later.

- 7.3. Each party agrees to notify the other of New Intellectual Property disclosures it receives from students participating in the Course Projects.
- 7.4. Nothing contained in this Agreement shall be construed as one party granting to the other party an actual or implied license or a license by estoppels, under any Intellectual Property or Background Intellectual Property of the other party except as expressly provided in this Agreement.

**8. NON-DISCLOSURE AGREEMENT AND CONFIDENTIALITY**

8.1. Sponsor acknowledges that University, its staff, faculty, officers and agents (including adjunct teaching faculty affiliated with this program) may utilize information gained in the Course Project for academic and research purposes and may also include Sponsor’s name in informational brochures related to Academic Courses. However, University, its staff, faculty, officers and agents (including adjunct teaching faculty) shall not disclose Sponsor’s Proprietary Information as defined below in Article 8.2, nor any patentable subject matter developed under this Agreement as described in Article 7.

8.2. “Proprietary Information” shall mean all information provided by one party to the other and clearly identified by conspicuous legend as proprietary or confidential by the transmitting party at the time of disclosure. In order to be considered proprietary, information disclosed orally or in any other transitory medium must be identified to the recipient as proprietary at the time of disclosure and summarized in writing within thirty (30) days after such disclosure. Specifically excepted from this definition of Proprietary Information is all information:

- (a) known by the receiving party at the time of disclosure;
- (b) publicly disclosed except by breach of this Agreement;
- (c) rightfully received by the receiving party from a third party without an express obligation of confidence;
- (d) independently developed by the employees or agents of either party without any use of Information provided by the other party; or
- (e) is required by law or regulation to be disclosed.

8.3. University shall protect Sponsor’s Proprietary Information from disclosure to third parties for a period of three (3) years from the date of receipt of such Information, and no such disclosure shall be made without the disclosing Party’s written permission. Upon termination or completion of the Course Project, University will comply with Sponsor’s reasonable written instruction regarding destruction or return of Sponsor’s Proprietary Information. Sponsor acknowledges that as a public institution of higher education of the State of Colorado, University is subject to the Colorado Public Records Act (C.R.S. §§ 24-72-201 et seq.). All plans and reports marked “Proprietary” or “Confidential” shall be treated by University as proprietary to the extent permitted under §§ 24-72-204.

- 9. **STUDENT DSCLOSURE:** Students who participate in a CEDC sponsored capstone design project are allowed to disclose their participation as part of their academic portfolio, resume, etc. subject to the terms of confidentiality as outlined in item 8.
- 10. **LIABILITIES:** Each party agrees to be responsible for the negligent acts or omissions of its employees, officers, or directors except that the University’s liability is expressly limited by and subject to all applicable immunities and privileges including the Colorado Governmental Immunity Act, C.R.S. §§ 24-10-101 et seq., and the Eleventh Amendment to the U.S. Constitution and nothing herein shall be construed as a waiver of such immunity.
- 11. **DISCLAIMER OF WARRANTIES:** THE RESULTS OF THE WORK PERFORMED BY STUDENTS UNDER A COURSE PROJECT ARE PROVIDED “AS IS.” THE UNIVERSITY MAKES NO REPRESENTATION OR WARRANTY AS TO ACCURACY, COMPLETENESS, MERCHANTABILITY, OR FITNESS FOR ANY PURPOSE OR CONDITION INCLUDING FREEDOM FROM ANY PATENT, COPYRIGHT, OR OTHER INTELLECTUAL PROPERTY INFRINGEMENT WITH RESPECT TO THE WORK RESULTS, WHETHER WRITTEN OR ORAL, STATUTORY, EXPRESSED OR IMPLIED.
- 12. **ENTIRE AGREEMENT:** This Agreement is governed entirely by the terms and conditions herein. Terms and conditions which may be set forth (front, reverse, attached or incorporated) in any purchase order issued by Sponsor in connection with this Agreement shall not apply, except for informational billing purposes; i.e., reference to purchase order number, address for submission of invoices, or other invoicing items of a similar informational nature.

**CONSENT TO USE OF ELECTRONIC SIGNATURES**

The University is hereby authorized to utilize electronic signatures as valid, legally binding substitutes for original, handwritten signatures on this document, per APS 2008 – Electronic Signatures and Transactions (eff. 07/01/2014).

By checking here, I agree to the use of electronic signatures as valid, legally binding substitutes for original, handwritten signatures on this document.

Signature by an Authorized Official of University  
\_\_\_\_\_

Signature by an Authorized Official of Sponsor:  
\_\_\_\_\_

Name: Kathryn Brocko Date: \_\_\_\_\_  
Title: Contracts Officer

Name: \_\_\_\_\_ Date: \_\_\_\_\_  
Title: \_\_\_\_\_

**Appendix A – Statement of Work for the Course Project**

Place official SOW here

**Appendix B – Invoice**

Place official CEDC Invoice form Here

**Appendix C – Unilateral Modification Example**

COLLEGE OF ENGINEERING, DESIGN AND COMPUTING STUDENT PROJECT FIXED PRICE AGREEMENT UNILATERAL MODIFICATION # _____			
<b>UNIVERSITY:</b>	The Regents of the University of Colorado	<b>SPONSOR:</b>	
Address:	University of Colorado Denver Office of Contracts and Grants	Address:	
Administrative Contact:	Kathryn Brocko, Contract Administrator Kathy.Brocko@ucdenver.edu	Administrative Contact:  Invoices sent to:	
Technical Contact/ Course Director:	Professor Kris Wood Senior Associate Dean of Innovation and Engagement Executive Director, Comcast Center College of Engineering, Design & Computing University of Colorado, Denver Kristin.wood@ucdenver.edu	Technical Contact/ Sponsor Mentor:	
Proposal No.	XXXXXXX	Award/PO No.	XXXXXXX
Project Title:	XXXXXXX		
Period of Performance:		Award Amount:	\$XX,XXX.00
Invoicing and Payments:	<input type="checkbox"/> Not Applicable <input type="checkbox"/> \$XXXXX upon Execution of Modification <input type="checkbox"/> \$XXXXX upon start of each Academic Semester (\$XXXXX on 09/01, \$XXXXX on 01/01)		
Remit payments to:	University of Colorado Denver, XXXXXXXXXXXXXXXXXXXXXXXX		
<b>TERMS AND CONDITIONS</b>			
<b>CONSENT TO USE OF ELECTRONIC SIGNATURES</b>			
<input checked="" type="checkbox"/> The University is hereby authorized to utilize electronic signatures as valid, legally binding substitutes for original, handwritten signatures on this document, per APS 2008 – Electronic Signatures and Transactions (eff. 07/01/2014).		<input type="checkbox"/> By checking here, I agree to the use of electronic signatures as valid, legally binding substitutes for original, handwritten signatures on this document.	
Signature by an Authorized Official of University:  _____  Name: <u>Kathryn Brocko</u> Date: _____ Title: <u>CEDC Contracts Officer</u>		Signature by an Authorized Official of Sponsor:  <b>N/A</b> _____  Name: _____ Date: _____ Title: _____	

## Appendix D – Student Acknowledgement

### ACKNOWLEDGEMENT OF STUDENT OBLIGATIONS TO COURSE PROJECT SPONSOR

I, \_\_\_\_\_ [PRINT NAME], Student, having enrolled in the Capstone Design course for the College of Engineering, Design and Computing at University of Colorado Denver, acknowledge that I will be permitted to work on a related industry-sponsored Design Project (“Course Project”) only upon accepting certain responsibilities related to the sponsor’s information and sponsor’s ownership of results and deliverables of the Course Project.

By signing below, Student acknowledges and agrees to the following:

#### **ACKNOWLEDGEMENT**

Student wishes to participate in Capstone Design course (the “Academic Course”) at the University of Colorado, Denver under the direction of the University’s Academic Course Professor, the purpose of which is to provide Student with experience applying skills and knowledge in the field of Engineering to a technical problem in the field.

**SPONSOR NAME** (hereinafter “Sponsor”) has entered into an agreement with University dated \_\_\_\_\_, titled Student Program Fixed Price Agreement, (the “Project Agreement”) for providing financial and mentoring support for students enrolled in the Academic Course to work on a particular technical problem described as follows:

**Project Title** (hereinafter “Course Project”).

While enrolled in the Course, Student wishes to devote his/her efforts to working on the Course Project. Students working on the Course Project may expect to receive the following educational benefits:

1. Student will have the opportunity to work on a real industry project.
2. Students will have the opportunity to learn and practice a user-centered Design Innovation process that facilitates creativity and innovation to design a real product/process/service for a real industrial customer.
3. Student will have the opportunity to interact and learn from industry experts who are mentors for the Course Project.
4. Student will have the opportunity to work with state-of-the-art tools located at industry sites and within the College of Engineering, Design and Computing.
5. As a result of interactions with industry sponsors, Student may obtain opportunities for professional advancement or employment.

In return for such educational, experiential, and other benefits of participating in the Course Project, Sponsor shall be entitled to take ownership of any New Intellectual Property. “Intellectual Property” includes: a) any art or process, machine, manufacture, design or composition, or any new and useful improvement thereof, or any variety of plant, which is or may be patentable under the patent laws of the United States (“Inventions”), and b) original works of authorship fixed in a tangible medium of expression under the copyright laws of the United States (“Works”). “New Intellectual Property” shall mean all Intellectual Property and Works conceived or first reduced to practice or made during the performance of this Agreement by the student(s) working on the Course Project.

#### **AGREEMENT**

##### **1. Proprietary Information**

a. “Proprietary Information” shall mean all information provided by Sponsor to Student and clearly identified by conspicuous legend as proprietary or confidential by the Sponsor at the time of disclosure. In order to be considered proprietary, information disclosed orally or in any other transitory medium must be identified to the Student as proprietary at the time of disclosure and summarized in writing within thirty (30) days after such disclosure. Specifically excepted from this definition of Proprietary Information is all information:

- (i) known by the receiving party at the time of disclosure;
- (ii) publicly disclosed except by breach of this Agreement;
- (iii) rightfully received by the receiving party from a third party without an express obligation of confidence;
- (iv) independently developed by the employees or agents of either party without any use of information provided by the other party; or

(v) is required by law or regulation to be disclosed.

b. Except in connection with and in furtherance of Student's participation in the Academic Course and work on the Course Project (including but not limited to communications with Sponsor Mentor(s), University instructors and mentors, faculty advisors and other students enrolled in the Course Project), Student shall not at any time or in any manner use, copy, disclose, divulge, transmit, convey, transfer or otherwise communicate any Proprietary Information to any person or entity, either directly or indirectly.

c. Upon termination of Student's participation in the Academic Course and the Course Project, Student shall return to Sponsor Mentor or to the Course Director, all materials in his/her possession which contain Proprietary Information.

d. Student's obligations to protect Proprietary Information shall survive for a period of three (3) years from the date of signature below.

I have read and accepted the responsibilities stated in Section 1 above.

\_\_\_\_\_ (Student initials)

## 2. Student Inventions, Discoveries, and Works (New Intellectual Property)

a. If a student wishes to file an invention disclosure or if the sponsor requests that an invention disclosure be created, student agrees to disclose promptly to the University and Sponsor the full details of any and all New Intellectual Property. Student shall accomplish disclosure by completing University's Invention Disclosure Form and returning to both Sponsor Mentor and University's course instructor a copy bearing the permanent address and dated signature of each student inventor.

b. Student hereby agrees to assign to Sponsor, without further consideration, Student's entire right to any and all New Intellectual Property, which shall be the sole and exclusive property of Sponsor. If requested by Sponsor, Student shall accomplish such assignment of rights to Sponsor by completing a formal assignment document for recordation in the U.S. Patent and Trademark Office.

c. Student agrees to cooperate with Sponsor's reasonable requests to assist Sponsor to obtain and from time to time enforce United States and foreign proprietary rights relating to New Intellectual Property. To that end, Student will execute, verify and deliver such documents and perform such other acts as Sponsor may reasonably request as necessary in applying for, obtaining, perfecting, evidencing, sustaining and enforcing such proprietary rights and the assignment thereof.

d. Student affirms that his/her obligation to assign New Intellectual Property to Sponsor does not overlap with (i) any other obligation of Student to assign intellectual property to University under Participant's work as an employee of University as further outlined under University's Administrative Policy Statement 1013, a copy of which is located at <http://www.cu.edu/sites/default/files/1013.pdf>; or (ii) any other contractual obligations that require Student to assign his/her intellectual property. If Student believes that Student may have overlapping obligations regarding his/her assignment of intellectual property, Student must address any such potential conflicts with University and Sponsor before signing the Project Agreement.

I have read and accepted the intellectual property assignment responsibilities stated in Section 2 above.

\_\_\_\_\_ (Student initials)

No Consulting or Employment Contract: This Agreement is not a consulting or employment contract and by execution hereof the parties do not intend to create a consulting or employment contract.

Acknowledged and Agreed to by:

Student: Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Dated: \_\_\_\_\_



## Appendix E - Capstone Design Projects Guidelines and Responsibilities

### Introduction

The University of Colorado, Denver College of Engineering, Design and Computing (CEDC) works with corporate sponsors as well as non-profit organizations and university researchers to offer a real-world project experience as an opportunity for CEDC students in their Capstone Design Course. This document describes how the course functions, sponsor expectations, responsibilities of the different parties and the solicitation process.

### Capstone Projects Purpose and Objectives

Capstone Design is the design experience for undergraduate seniors in the CEDC. The purpose of this course is to simulate an entry-level engineering project in industry, allowing students to apply the engineering knowledge acquired in the fundamental engineering courses to a real-world, industry sponsored, open-ended design challenge.

Through this one or two-semester experience, students typically have the unique opportunity to work with a small group of their peers (typically 3-6 students total per a team), who will be personally mentored by a CEDC Faculty Advisor and an Industry Mentor from the sponsoring company, government agency, or organization. Students will learn the complete cycle of design and what it entails professionally. At the end of the academic year, feasibility-level prototypes and/or engineering drawings and a design report will be produced and presented to sponsors. Most importantly, by the end of each student's project, they will understand the difference between theory, paper, and a "feasibility demonstration" or "trade show" ready prototype and/or engineering drawings package. This course is required for all undergraduate engineering students, ensuring that they interface with talented faculty and sponsoring companies.

### Course Objectives:

- Learn and practice a user-centered design process and methods that enhance creativity and the resulting innovation.
- Develop an understanding of the necessary professional skills needed to succeed in an entry level engineering role in industry.
- Understand how to work collaboratively on a team toward a common design goal.
- Become proficient at written and oral technical communication skills, as well as managing long-term projects.
- Learn to integrate technical engineering and fabrication skills to successfully complete a project.
- Generate alternative design concepts and evaluate ideas using course and sponsor specified design requirements.
- Use results of engineering analysis to make design decisions (engineering and business) in a methodical manner.
- Apply previous knowledge to create models and to build physical prototypes and/or produce engineering drawings.

### Sponsor Benefits

- **Products:** Sponsors obtain a "feasibility demonstration level" prototype and/or set of appropriate engineering drawings with documentation at the end of the project.
- **Ideas:** Sponsors benefit from a vast variety of new ideas and approaches undertaken by student teams to address the sponsor's problem.
- **Customer Insight:** Sponsors gain new insight into what a variety of their stakeholders desire in the product, process or service being developed in the project.
- **Recruitment:** Close interaction with student teams provides sponsors with a unique opportunity for recruiting new graduates.

- **Collaboration:** Integrated teams comprised of faculty members, industry sponsors, and students focus on the successful completion of the project.
- **Outreach:** Sponsored projects are showcased to the local community as well as other companies at a public design exposition each semester (unless otherwise restricted by Sponsor for intellectual property reasons).
- The program fee of \$XXXXX is often an efficient expenditure on the part of the Sponsor as opposed to internally developing the ideas and prototypes that result from participation in the program.
- As may be appropriate, all capstone design students become familiar with the sponsoring organization as the assigned team learns about the company's needs and goals to successfully complete the project, and share this with the entire class.
- Sponsors often have the opportunity to pursue patents on the IP created in the project.
- Sponsors often have the opportunity to be co-authors on peer-reviewed papers created as part of the project.
- Sponsors have the privilege of making a tremendous positive impact as they mentor the next generation of technical leaders for our world.

## What Project Sponsors Can Expect

Corporations, small businesses, national laboratories, R&D organizations, and non-profit organizations may become project sponsors. When defining a project, sponsors should understand that the purpose of the Capstone Design curriculum is to provide undergraduate student teams with a real-life experience of delivering a tested and feasibility level prototype and/or engineering drawings with documentation in response to the Sponsor project definition. In this context, the design team endeavors to provide value to the sponsors through deliverables such as extensive stakeholder research and data, a variety of potential solutions to the problem, engineering analysis or simulations relevant to the project, models that highlight innovation opportunities in the product or user interactions, prototypes showing feasibility of the ideas and/or engineering drawings along with testing results. This experience is carried out by largely self-directed, but coached, teams that employ a design Innovation process in coordination with fundamental engineering principles to make design choices, choose and apply state-of-the-art development tools, overcome design challenges, and seek to understand the development process they follow.

All project concepts should have a clear purpose with a recognized value to industry or society with specific functional objectives, yet provide significant design challenges that allow students to explore various design solutions and make design choices based on sound engineering reasoning. Projects must have an aspect that allows the student team to innovate. Projects that are purely research or have an embodiment already established (and desire only detailed engineering work on that embodiment) are not appropriate for capstone design. At the same time, projects must have a level of complexity that is compatible with a 3-6 person team of engineering seniors, working on average 10-15 hours per week each, for one or two semesters.

Within the framework of the course, all projects are conducted on a best-effort basis by students, guided by CEDC staff and in close collaboration with the sponsor. The sponsor should understand that our primary purpose is educational; as such, exploratory or proof-of-concept projects can be quite successful. Projects that are in the customer's critical path should not be submitted as capstone design projects unless the customer takes full responsibility for the outcome. "Great-to-have" results and "proof-of-concept" engagements may be more suitable. The goal is to make every project a success, although the University of Colorado cannot take any responsibility for results deemed by the customer as "insufficient."

Student teams are required to have an organization chart detailing individual responsibilities. Each student must assume at least one type of leadership position. Since the teams are small, students typically assume multiple technical functions.

Each team is assigned one or more faculty member(s) for advising a particular team project (called *faculty mentors*) that assist the team directly through weekly meetings. In addition, a small group of faculty review and evaluate various aspects of all projects throughout the project. The CEDC faculty as a whole support capstone design teams on project-related questions, providing expertise and experience for the students and sponsors to draw upon. Students are also encouraged to seek out other sources of expertise, information, and advice from university staff, industry and literature to support their project development. Teams work with their sponsors to identify the documentation and other materials needed to satisfy the project goals. Form and degree of detail of various documents including requirements statements, detailed design, test plans, etc. will be driven from course assignments and sponsor needs.

## What is Expected from Project Sponsors

All sponsors are asked to be active participants in their sponsored project. Sponsors should provide a Technical Lead, or Mentor, who can dedicate approximately one hour per week to the project. This time may be in face-to-face meetings, virtual meetings or other types of communication such as email. Close contact with the team during the project definition phase is critical for success. Frequency of sponsor-team interactions will vary and is jointly scheduled by the sponsor and team. Sponsors should provide the relevant project details and agree to the project expectations and responsibilities as described in Appendix E. In addition, participation in the course requires the following financial commitment from sponsors:

**Contract Option:** A \$XXXXXX fee is charged if your organization wishes to retain project-related IP and prototype hardware. In this case a contract will be created through the University of Colorado. Students assigned to these projects will be made aware of the requirement to sign over their intellectual property rights.

**Gift Option:** A philanthropic donation to provide support to the CEDC Design Projects. Gifts are no strings attached. Intellectual Property is owned by inventors who create it. No additional agreements, deliverables or overhead are provided.

### Payment Terms:

- **Option 1:** Full payment can be provided upon full execution of the contract. No later than September 1 (or February 1 for Spring projects) or the beginning of the course work.
- **Option 2 (an option for 2 semester projects only):** Payment is divided into two payments of \$XXXX, with the first payment due at the beginning of the course work in the Fall Semester, and the remaining \$XXXX is due at the beginning of course work in the Spring Semester.

**Export Controlled Items:** These projects are conducted by CEDC students of varying backgrounds and futures. The University of Colorado cannot receive any EAR or ITAR controlled information because we cannot control where these students go after they graduate at the end of the course.

### Approximate Sponsor Timeline for 2 Semester Projects

- **June:** Complete a Notice of Intent form (NOI) (see following page).
- **Early August:** Sponsor submit the required project documents & information.
- **Late August:** Students submit project preferences and project teams are formed.
- **Late August/ Early Sept:** Students meet with project team (students, faculty & sponsor) to finalize project scope.
- **Throughout fall semester:** Be available to help the team refine project goals and scope as well as to assist with stakeholder engagement. Work with team to identify a meeting/communication pattern. Attend major presentations and provide feedback, such as: Spec & Planning, PDR, CDR. Read and provide feedback on technical reports.
- **Mid-Fall Semester:** Sponsors are invited to attend a Preliminary Design Review
- **December:** Sponsors are invited to attend a Critical Design Review
- **Throughout spring semester:** Continue to be available to meet with team to track progress during fabrication and testing, as well as provide input when design issues arise
- **Late Spring:** Sponsors are invited to attend a Final Design Review and Capstone Design Expo.

### Approximate Sponsor Timeline for 1 Semester Projects

- **June (or Oct):** Complete a Notice of Intent form (NOI) (see following page).
- **Early August (or Jan):** Sponsor submit the required project documents & information.
- **Late August (or Jan):** Students submit project preferences and project teams are formed.
- **Late August (or Jan)/ Early Sept (or Feb):** Students meet with project team (students, faculty & sponsor) to finalize project scope.
- **Throughout the semester:** Be available to help the team refine project goals and scope as well as to assist with stakeholder engagement. Work with team to identify a meeting/communication pattern. Attend major presentations and provide feedback, such as: Spec & Planning, PDR, CDR. Read and provide feedback on technical reports.
- **Mid-Semester:** Sponsors are invited to attend a mid-project Design Review
- **December (or May):** Sponsors are invited to attend a Final Design Review

### For questions please contact

Professor Kristin Wood

[Kristin.wood@ucdenver.com](mailto:Kristin.wood@ucdenver.com)

Cell: [\(720\) 822-0215](tel:(720)822-0215)

# Capstone Design Project Sponsor Notice of Intent

2018-19 Academic Year

(Submit this form to Professor Kris Wood before June 30<sup>th</sup> (or Oct 30<sup>th</sup> for spring semester starts) via email at: [Kristin.wood@ucdenver.edu](mailto:Kristin.wood@ucdenver.edu) Please CC [Daniel.d.jensen@ucdenver.edu](mailto:Daniel.d.jensen@ucdenver.edu).

Organization Name: \_\_\_\_\_

Project Technical Contact Name: \_\_\_\_\_

Preferred Technical Email/Phone: \_\_\_\_\_

Project Administrative/Contractual Signatory Contact Name: \_\_\_\_\_

Preferred Administrative/Contractual Signatory Email/Phone: \_\_\_\_\_

Type of Organization (check one and fill in information if applicable):

\_\_\_\_\_ Commercial Business

Participating as \_\_\_\_\_ Donor \_\_\_\_\_ Contract

A \_\_\_\_\_ Small Business or Start-Up (as defined by the SBA) or a, \_\_\_\_\_ Large Business

\_\_\_\_\_ Non-Profit Organization – Non-Profit Tax Exempt Number: \_\_\_\_\_

Participating as \_\_\_\_\_ Donor \_\_\_\_\_ Contract

\_\_\_\_\_ University Affiliate – Affiliation: \_\_\_\_\_

Participating as \_\_\_\_\_ Donor \_\_\_\_\_ Contract

If a Contract, does your company also require our agreement to be tied to a PO within your internal accounting requirements? Yes\_\_\_\_ No\_\_\_\_\_.

**All participating sponsor individuals and their technical liaison must sign this form to verify that they have read and understand the Sponsor Guidelines.**

Signature of Technical Project Contact: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Admin/Contract Liaison: \_\_\_\_\_ Date: \_\_\_\_\_

## Project Overview

### Sponsor Organization/Company Name & Address

<http://www.your-company.com>

1. **Project Title:** Your suggested title for the project (make it as short as possible)
2. **Industry Description and Company Products:**
3. **Contact Information:** Name, Title: (Designated program contact for the student team)

E-mail:

Phone:

4. **Why students should choose this project:** Students are presented with a selection of projects from our industry partners so they can select the one that best matches their interests and skill set. Consider adding information in this section as to why you feel your project would be an appealing capstone design experience.

5. **Project Background and Objective:** Brief explanation of the project, and desired objective(s).

6. **Project Requirements:** The project requirements and constraints should be stated in broad and simple terms. The specific details will be established between the client and the team.

7. **Deliverables:** The client is asked to indicate the desired deliverables in the project. The final deliverables will be established through negotiation between the team and the client as a stage of the project.