APPLICATION COVER PAGE
(Please Print or Type – All Fields Must Be Completed)

Project Name: CTE Excellence through Innovation in the Beaverton School District
Amount Requested: $353,630

Project Director: Steve Day		
District, School or ESD: Health and Science School (HS2), Beaverton School District		
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	Participating High School or Middle School Name (add additional rows as needed)	Lead Contact Name	Grade Levels	Student Enrollment
1.	Health and Science School (district wide program)	Steve Day, Principal	6-12	712
2.	Rising 9th and 13th graders from across Beaverton School District	Vicki Lukich, Executive Administrator for High Schools and Options		
3.				
4.				
5.				

Please check all that apply:

_X_ This project directly involves Career and Technical Student Organizations
Please note page of proposal that describes this relationship. Page: 30

_X_ This project has a clear connection to STEM
Please note page of proposal that describes this relationship. Pages: 2-5

PURPOSE AND SCOPE OF PROJECT

Given the persistent challenges our country faces in preparing all students to bring their incredible potential to the shortfalls we face in both CTE and STEM careers, the Beaverton School District opened the Health and Science School (HS2) with the specific mission to prepare all students for success in college and careers in an innovative school environment in which students' experiences in our STEM school are enhanced with CTE courses and outside-of-school opportunities. Our initial success leads us to request $353,630 to take our current work to the next level in a variety of key areas in our school and district.

The CTE Revitalization grant will support five (5) components of our work to enhance CTE programming related to our STEM focus at HS2 and our needs as a district: 1) **Double the number of current Internship and Job Shadow opportunities** by expanding our current Internship staff, 2) **Create a pilot CTE Bridge Program for 8th and 12th grade students** across the Beaverton School District that will clearly link CTE experiences to career and college readiness, 3) **Create a series of networking events** that will bring together existing and potential CTE students, schools, and industries, 4) **Produce industry-quality Student Profile videos** shared through social media with schools, communities and industries for students to share their inspirational success stories in CTE education, and 5) **Build a rigorous CTE Healthcare Program of Study** in grades 6-12, expand our CTE Engineering work into grades 6-8, and support teacher professional development with industry experience in both areas.

- *True educational innovations are those products, processes, strategies and approaches that improve significantly upon the status quo and reach scale. How does this project demonstrate innovation in the delivery of CTE?*

Innovation is a cornerstone of the story of the Health and Science School (HS2) and its success over the past seven years as a 6th – 12th grade school. From our outreach and recruiting of a large percentage of underrepresented minority students to our success rates for all students to date, we have proven effective at creating, implementing, and sustaining innovative programming here at HS2. Our foundation and vision can be transferred and successfully applied to other settings (e.g. our work in proficiency assessment that has spread across the state). The innovative aspects of this proposal include:

- Expanding our existing CTE Engineering program to our MS level.
- Adding a CTE Program of Study in the Biomedical Sciences/Healthcare fields for both MS and HS grades.
- Creating a CTE-based summer Bridge Program for students moving into the challenges of high school and college.
- Creating CTE success for all students in a college prep environment.
- Bringing multiple partners to networking events in a dynamic environment to grow CTE/STEM opportunities for all students.
- Amplifying student stories through industry-quality videos shared through the social media channels of our schools and industry partners.

We firmly believe that the last two bulleted items bring industry partners to the table in ways that have only been used before in limited ways in our community on behalf of underserved students across our district and region.

- *How does this project demonstrate the integration of the required and bonus elements of the proposal into a coherent project including the integration of core academic content and community resources?*

Each area of the bonus elements outlined below will be fully integrated into the overall project outlined in this proposal. For a brief overview here of these, we can highlight the following:

Student organizations: We have already met with both statewide and school-based student leaders of the Oregon HOSA organization and we've determined that this structure will work well for HS2 students as well as students throughout the school district that also might be interested in this work.

Middle School: A key aspect of our overall project is the integration of Engineering and Biomedical Science in grades six through eight. We firmly believe that student achievement and graduation will be positively impacted by this work.

Extended year: Our pilot CTE-based Bridge Program for 8th graders will truly expand the school year for students as they make the leap from MS to HS and from HS to college.

Regional focus: Beyond the aspects of this project that will inform practice at other schools through replication, the use of industry-quality videos to highlight student success will have a profound impact on student motivation, community support of CTE programs, and industry willingness to help lead this work.

STEM: As a school with a foundation firmly set in the preparation of students for college success through STEM programs, we have pledged our work to meeting this very real economic and social need for a larger and more diverse pipeline of future engineers, scientists, and healthcare leaders.

- *How does this project support the expansion and growth of CTE in your district, region and/or state?*

This project supports the expansion and growth of CTE in our district by adding a CTE Program of Study (POS) in Healthcare at Health and Science School (HS2). As an option secondary school (grades 6-12) accessible to the entire school district, HS2 is uniquely poised to serve the needs to students interested in both the POS in Healthcare or our existing POS in Engineering.

This project meets the needs of CTE in the region/state in two ways:

1) The proposed networking series will highlight CTE and STEM work, connecting industry leaders and CTE educators with the most engaging part of our K-12 system, our students. Our experience as a school in this area has shown us time and again that partners work hard for student success when they can "put a face" to the students. By showcasing success in CTE/STEM, we create an environment that brings recognition to the hard work of CTE educators, draws in the strong current focus on STEM, and invites industry partners to provide new or further support for CTE programs in schools.

2) The industry-quality Student Profiles videos will highlight the academic achievements and industry experience of our largely underrepresented student and graduate population. These profiles can stand as both testament and inspiration for the siblings, peers, and younger students to also connect their work and success in school to their future career. Beyond the diversity of language, ethnicity, income, and family education success, these students also represent a strong diversity of college and career choices within Healthcare and Engineering, each of which indicates a rigorous pathway to success.

- *Providing students with authentic workplace experiences are a cornerstone of CTE programs. This authentic learning can take many forms from applied learning activities to full apprenticeship programs. How does this project ensure students are provided with experiential learning opportunities?*

One aspect of our work at HS2 to date provides us with a certainty of the truth of the above statement. We believe that authentic and relevant curricula enhanced with experiences outside the classroom are key aspects of students' ability to assume the identity of a successful college student and career professional. Expanding our Internship program to double the number of students working with Engineering and Healthcare industry partners will be a key aspect of this authentic work. Furthermore, by working to add a CTE Program of Study and CTE certified teachers to the Biomedical Sciences program of the school, students will have a rigorous academic pathway for those interested in an eventual career in the Healthcare fields.

While these programs will certainly build our capacity for our high school students to have authentic industry-based experiences, we are also very excited about our expansion of both programs, Engineering and Healthcare (Biomedical Sciences), into the middle level grades. Many of our current students struggle to connect their work at these earlier grades with their long-term goals for college and careers. Our purposeful use of these two areas connected to core academic classes in middle school will serve not only our students but also as a potential model for these same connections in other settings.

PROJECT DESCRIPTION

A. Project Outcomes and Progress Markers

Project Outcome #1: Expand our current Internship staff to more than double the number of current Internship and Job Shadow opportunities for our students from 100 to 200 opportunities.

Outcome #1 Progress Markers:	Timeline for completion	Key personnel
Increased hours and days of contract for Internship staffing	Jan. 31, 2014	Kim Herder, Internship Coordinator
Double the number of Industry Partners providing Internship / Job Shadow opportunities	Sept. 2015	Internship staff
9th and 10th grade CTE classes out in community fieldwork twice per year	Dates set by Oct. 2014	CTE Teachers
Double the number of Internships and Job Shadow opportunities to 200 for HS students	June 2015	Internship staff

Project Outcome #2: Create a pilot CTE summer Bridge Program for 8th and 12th grade students across the Beaverton School District that will clearly link CTE experiences to career and college readiness.

Outcome #2 Progress Markers:	Timeline for completion	Key personnel
CTE Bridge Program Partnerships developed with Industry and Higher Education partners for underrepresented minority 8th graders from across the school district	Feb-June 2014	CTE teachers, Internship Staff,
Pilot CTE Bridge Program with fifty (50) transitioning 8th graders	June 2014	CTE teachers, Internship staff, Bridge Program Coordinator
Increase in the number of earned credits for 9th graders, Greater retention of students in throughout HS and college	Sept-June 2015	CTE teachers, Internship staff, School Administration
CTE Bridge Program Partnerships developed with Industry and Higher Education partners	Feb-June 2014	CTE teachers, Internship staff,

CTE Bridge Program for both 8th and 12th grade transitioning students (100) across the school district	June 2015	CTE teachers, Internship staff, Bridge Program Coordinator, Higher Education staff
9th grade transition success indicators: success in CTE engineering class, greater credit earning among all courses, greater retention of students into 10th grade	Sept-June 2015	CTE teachers, Internship staff, School Administration
13th grade (college) transition success indicators: credits earned in 13th grade, retention into 14th grade at university/college setting, Internship placement	Sept-June 2016	CTE teachers, Internship staff, School Administrations from high school and higher education settings

Project Outcome #3: Support a series of five (5) networking events that will bring together existing and potential CTE students, schools, and industries.

Outcome #3 Progress Markers:	Timeline for completion	Key personnel
Industry (12), educator (10), and student (30) participation in the launch event. (Attendance goal)	May 2014	Internship staff
Increased participation by industry representatives, educators, and students in subsequent events with a goal of 100% increase by fifth event in May 2015	Sept-June 2015	Internship staff, School and District Administration
Additional industries "signed on" as partners providing Job Shadows or Internships in Oregon schools	June 2016	

Project Outcome #4: Create capacity for students to share their inspirational success stories in CTE education in industry-quality profiles shared through social media with schools, communities and industries.

Outcome #4 Progress Markers:	Timeline for completion	Key personnel
Communications plan developed and purchase of studio equipment to mentor staff and students	March 2014	CMD staff, Internship staff and School Administration
First student profile filmed/edited at industry and school locations and ready for distribution on social media to schools and industry partners	May 2014	CMD and school staff
Five additional profiles filmed and edited, ready for distribution	Nov 2014	CMD and school staff
Nine additional profiles filmed and edited from all BSD schools and ready for distribution via social media to schools and industries across Oregon	June 2015	School staff and students successfully capable of sustaining this work

Project Outcome #5: Support teacher professional development with industry experience to expand our CTE Engineering work into grades 6-8 as well as expand to include a rigorous CTE Biomedical Sciences program in grades 8-12.

Outcome #5 Progress Markers:	Timeline for completion	Key personnel
Middle school teachers' participation in GTT training through Project Lead the Way	Aug. 2014	PLTW mentors and MS teachers
All middle and high school math and science teachers embedded in CTE industry experience for at least 40 hours per teacher	June 2015	MS and HS math and science teachers, Internship staff
Curricular plans detailed and shared online that directly connect industry experience of teachers to Common Core and Oregon diploma	Aug. 2015	MS and HS math and science teachers
High school biomedical teachers actively working with industry partners to attain experience needed for CTE certification (200 hours by this date)	June 2015	HS teachers and Internship staff

B. Career and Technical Education Program of Study Design

Background: Health and Sciences School (HS2) is unique in that we are a combined middle and high school, serving students in grades 6 through 12. We are also committed to serving diverse, traditionally underserved student populations with a core curriculum focus on health and sciences. We emphasize rigorous, inquiry-based and often project-based learning and we believe all students can succeed at HS2 and graduate with a full range of options that include the preparation to be successful in college and multiple careers.

We offer two career pathways in high school: 1) Healthcare/Biomedical Science, 2) CTE Engineering. As a part of the HS2 experience, all students take our CTE Introduction to Engineering Design course as 9th graders and then choose an academic/career pathway with a concentration for the next three years in either Biomedical Science or advanced CTE Engineering.

Our current CTE program in Engineering provides us with many insights into the effectiveness of CTE programming at the high school level. With the support of the grant funding, we will be able to enhance three specific aspects of our Healthcare/Biomedical Science and Engineering programs that will build on success to date and help close remaining gaps in student achievement. Beyond the increase in Internships and Job Shadows mentioned earlier in this narrative, these enhancements include:

- **Technical training for teachers.** This project allows us to certify our Biomedical Science program as a CTE Healthcare Program of Study by June of 2016. (This includes additional and ongoing hours of industry experience

outside of the grant period for teaching staff.) Funding will also provide over 200 hours of specialized healthcare industry experience for teachers of our Project Lead the Way Biomedical Science curriculum. We greatly value the PLTW curricula in the three courses currently taught at HS2: Human Body Systems, Medical Interventions, and Biomedical Innovations. We also know, however, these courses will only be enhanced by the ability of our teachers to gain industry experience with our partners from the Red Cross, Kaiser Hospital Systems, and Tualatin Valley Fire and Rescue. We are also pursuing enhanced partnerships for this project with other existing partners that might provide additional CTE experience: OHSU, the OHSU Primate Center, and Lewis and Clark College.

- **Middle School Engineering expansion.** This project will fund the initial equipment, teacher training, and support needed to expand HS2's current CTE engineering program into the middle school grades (6-8). This will include two units of study from the Gateway to Technology program from PLTW: the Automation and Robotics course and the Design and Modeling course. As a 6^{th}-12^{th} grade school, HS2 is uniquely poised to provide all middle school students early access to CTE's program of study. This head start will produce meaningful and lasting effects, given our student population and the overall mobility of highly impacted families. We believe the expansion of this successful Engineering program will allow us to retain more students into the high school grades, provide a rigorous engineering foundation for students that will attend the full range of Beaverton high

schools, and serve to inform more teaching staff about the strengths of a school-industry partnership.

- **Middle School Biomedical Science expansion.** As we work to establish the high school portion of the CTE Healthcare Program of Study, we will be working in parallel to establish a pathway program for the Biomedical Sciences at the middle level grades (6-8). Using the PLTW Gateway to Technology curriculum of Medical Detectives, teachers and students will be able to access rigorous study of Biomedical Sciences at earlier grades.

C. Underserved Students

We are excited about the potential to expand programs that we know have made a positive impact on student achievement. Our school is eager to develop a more robust relationship with our current and new industry partners as a bridge for the future success of our students. As one of the most diverse and most impacted secondary schools in our district, and as a magnet/options school that recruits and serves students from all parts of our district of over 39,000 students, we know from experience that students from all economic, ethnic, language, and gender backgrounds can excel in rigorous CTE engineering courses. Our student population demographics include an average over six years of the following:

- 49% of our students are economically disadvantaged
- 8% of our students currently receive services as English Language Learners, but over 36% of our student population have received or qualified to receive these services.

- 13% of our students receive the support of Special Education
- 31% of our students are Hispanic
- Almost 50% of our students are female (a distinct difference from STEM schools on local and national levels)

The data in Table 1 below shows the full range of rich diversity of our demographics along with the graduation rates from our first graduating class at Health and Science in 2011 for students that took a traditional path to graduation (4-year cohort) as well as students who may have needed some or all of an additional year to graduate (5-year cohort). Both cohort data sets show strong performance across many demographic groups that are traditionally underperforming. Subsequent graduating classes have shown similar strength and persistence with above average graduation rates over four or more years.

Table 1

Beaverton School District	05-06	06-07	07-08	HS2 2007-08 4-year Cohort	HS2 2007-08 5-year Cohort	HS2 Student Population in 2007-13 (avg)
All Students	74.2	75.8	76.2	81.52	88.89	**100%**
Economically Disadvantaged	58.6	59.4	63.9	70.83	82.61	**49%**
Limited English Proficient	54.6	54.9	59	81.82	86.36	**8%***
Students with Disabilities	51.9	58.0	53.4	71.4	85.71	**13%**
Asian/Pacific Islander	90.7	89.0	89.7	91.67	91.67	**13%**
Black	57.6	70.0	66.3	60	100	**5%**
Hispanic	46.5	51.4	58.7	78.95	86.84	**31%**
American Indian/Alaskan Native*	68.8	47.4	66.7	100	100	**2%**
White	78.3	80.3	80.1	82.35	87.88	**45%**
Multi-Racial/Multi-Ethnic	75.9	79.7	78.9	100	100	**5%**
Talented and Gifted	95.4	92.4	94.3	91.67	91.67	**12%**
Male	71.3	72.1	72.5	71.05	81.08	**52%**
Female	77.3	79.5	81.3	88.89	94.34	**48%**

*36% of our students at HS2 have ever been eligible for or participated in a program to acquire academic English. We have 35 languages other than English spoken at HS2 homes.

D. Diploma Connections

This project greatly assists students in their obligation to meet or exceed the Oregon Diploma requirements and prepare for college and career success in the following manner:

- Each of the CTE courses in Engineering or Healthcare/Biomedical Science counts for credit towards graduation in science or as an elective.
- Each CTE course embeds the critical thinking skills highlighted in the Essential Skills of rigorous writing, reading, and applied math.
- Our Internship and Job Shadow program help students to see the critical nature of the Essential Skills as applied in industry.
- The enhanced Internship experiences will further support our 12th grade Passages/Career Education credit presentations. Furthermore, the Student Profile videos will serve as an excellent method of communicating with community partners far beyond our existing Passages Panels and Mock Interviews. (At HS2, we have a capstone experience at 12th grade called "Passages" that requires students to present their Plan and Profile, Career Connections, and Extended Application in an extended presentation made to a panel of educators and community partners. They prepare for this with similar presentations to community panels at 8th and 10th grades, Mock Interviews at 11th grade, and portfolio presentations to their families at all other grades.)

E. Sustainability and Communication

We have followed each outcome below with a set of conditions and activities that will allow for the sustainability of this project beyond the period of grant funding provided. Overall, we believe that we have a project-wide recipe for sustainability and effective communication. Project-wide features that will support sustainability and communication include:

- Partner CMD Agency's mentoring of staff and students will develop deep experience in marketing and communication including video production, creation of video, web, and social media templates, and expert guidance on communication and dissemination through a variety of partner networks.
- Strong and sustained communication with partners from Internship staff including the proposed series of networking meetings.
- The networking meetings will provide opportunities for communication and, more importantly, celebration of student successes that have come from effective school-industry partnerships.
- The Student Profile videos distributed through social media outlets by schools, districts, and partners will create a sustained communication about CTE programming that will endure far beyond the grant period.
- A history of fostering innovation that leads to excellence both within the HS2 site at district levels helps to retain excellent staff and sustain partnerships.
- The dissemination of evaluation data from the Portland Metro STEM Partnership study will help to continue discussion about excellent CTE programming and practices.

Project Outcome #1: Expand our current Internship staff to more than double the number of current Internship and Job Shadow opportunities for our students (from 100 to 200 opportunities).

- As noted earlier and in the budget narrative, we fully anticipate that the success of doubling the current number of Internships and Job Shadows will demand 820 more hours of staffing per year beyond the period of the grant to sustain partnerships and supervise students. Our confidence in this assertion comes from our current dedication of funding to this position despite the current budgetary pressures and limitations.
- Despite staffing cuts of the past six years, HS2 has not only dedicated staffing to the role of Internship Coordinator, but we have also maintained this position at 1260 hours per year (6 hours/day for 210 days) while this same position was lost at all other Beaverton schools and facilities.

Project Outcome #2: Create a pilot CTE Bridge Program for 8th and 12th grade students across the Beaverton School District that will clearly link CTE experiences to career and college readiness.

- The opportunity to continue Bridge Programs for our 8th and 12th grade students from the Beaverton School District will largely depend on the initial success of these three programs in 2014 and 2015.
- With evaluation data in hand showing the need for continued CTE Bridge Programming, we plan to approach district, industry, and higher education partners for long-term support of these programs.

Project Outcome #3: Support a series of five (5) networking events that will bring together existing and potential CTE students, schools, and industries.

- We anticipate that the success of each of these networking meetings generate industry interest in supporting these events by hosting them at partner sites. With several partners already committing to host an event at some time during the grant period (ex: Red Cross), we anticipate that our sustained costs in this area will remain the cost of substitute teacher funds for CTE teachers. By planning days on common staff development calendar dates, we might be able to support these events long-term with minimal additional funding.

Project Outcome #4: Create capacity for students to share their inspirational success stories in CTE education in industry-quality profiles shared through social media with schools, communities and industries.

- Beyond the initial series of videos produced professionally by our partner CMD, the mentoring and support by CMD will also allow us to have a cadre of teachers and students that all have the equipment and expertise to develop professional quality videos for additional Student Profiles. We expect that this series will continue with nine (9) additional videos produced by staff and students in the final six (6) months of the grant period with a series of videos to come for each subsequent graduating class. As noted above in the narrative section on Diploma Connections, these videos will fit well within the needs of student expectations related to their senior projects for Plan and

Profile, Career Related Learning and Extended Application. Student Profiles fit the additional need for a continued and robust series of role models for younger students, educators, and industry partners of successful students with CTE experience from a wide diversity of backgrounds and locations.

Project Outcome #5: Support teacher professional development with industry experience to expand our CTE Engineering work into grades 6-8 as well as expand to include a rigorous CTE Biomedical Sciences program in grades 8-12.

- The use of the GTT program at the middle school grades will require a minimum of sustained funding for consumable supplies. Current PLTW estimates these costs for all three GTT courses that we would implement at just under $2,000 per year. This funding can be sustained through the dedication of school funding, parent group (booster) funding, or possibly with foundation funding from our local Beaverton Education Foundation.
- We plan to convene an industry advisory group at the completion of this grant to ascertain the experience levels of our Biomedical Science teachers relative to the needs for CTE certification and the establishment of our Healthcare Program of Study. Depending on the findings of this advisory group, we will continue to provide support for teachers for additional industry experience or we will move forward with their other recommendations to achieve the Program of Study and CTE certified teachers.

F. Activities and Timeline

Project Outcome #1: Expand our current Internship staff to more than double the number of current Internship and Job Shadow opportunities for our students.

Outcome #1 Progress Markers--Activity	**Timeline**	**Key personnel**
Increased hours and days of contract for Internship staffing —this is a key step in creating capacity to build additional Internships and Job shadows. Starting in early January, Kim Herder will be able to start meeting with new industry partners as well as plan for current partners to expand current Internships into the summer months. We will also be able to hire an additional part-time staff member that will support this work during the school year throughout the grant period (we plan to be able to make Kim's additional hours permanent using school funding in July of 2015).	Jan. 6, 2014	BSD Human resources staff, and Kim Herder, Internship Coordinator
Industry (12), educator (10), and student (30) participation in the initial networking event. (Attendance goal)—coinciding with outcome #3 below, this networking event will allow us to also achieve outcome #1. Hosted within a BSD school or partner industry, we anticipate that this kick-off event will allow us to showcase our first Student Profiles as well as significant student work in industry placements for the current year.	May 2014	Internship staff
Double Industry Partners providing Internship and Job Shadow opportunities—our current Internship and Job shadow opportunities number just under 100 for our high school. With these additional staff, we will double this number starting in September 2014 and by the completion of the grant period in June 2015.	Sept. 2015	Internship staff
9th and 10th grade CTE classes out in community fieldwork twice per year—this activity builds capacity in two significant ways: 1) In the connections we have as a school and district to industry partners willing to host groups of students in classes and potentially willing to host Internships or Job Shadows as a result of this activity. 2) This is also a significant activity in producing a high level of rigor to student self-identity as successful future STEM employees in Engineering and Healthcare fields.	Dates set by Oct. 2014	CTE Teachers
Double number of Internships and Job Shadow opportunities for HS students—Significant progress marker for Outcome #1	June 2015	Internship staff

Project Outcome #2: Create a pilot summer CTE Bridge Program for 8th and 12th grade students across the Beaverton School District that will clearly link CTE experiences to career and college readiness.

Outcome #2 Progress Markers--Activity	**Timeline for completion**	**Key personnel**
CTE Bridge Program Partnerships developed with Industry and Higher Education partners for underrepresented minority 8th graders from across the school district—the development of these partnerships will be a key activity in the successful planning of the Bridge Program for students. Beyond the academic traits of a successful high school student, these students will also need to see beyond high school into the worlds of both college and career. Each will assist students in the adoption of the identity of a successful STEM student and employee.	**Feb-June 2014**	**CTE teachers, Internship Staff,**
Pilot CTE Bridge Program with fifty (50) transitioning 8th graders—implementing this camp will take place for 8th grade only in the summer of 2014. This pilot will allow us to grow the program with partners then willing to assist with both 8th and 12th graders in the summer of 2015.	**June 2014**	**CTE teachers, Internship staff, Bridge Program Coordinator**
Increase in the number of earned credits for 9th graders, Greater retention of students in throughout HS and college—measured by the Portland Metro STEM Partnership staff in our evaluation process, these indicators from the Bridge Program will be measured over the course of the year following each program.	**Sept-June 2015**	**CTE teachers, Internship staff, School Administration**
CTE Bridge Program Partnerships developed with Industry and Higher Education partners—this work will prepare for the Bridge Programs of the summer of 2015, involving both 8th and 12th graders. The 12th grade Bridge Program will directly connect students and school staff to college staff and co-locate the program on a college campus.	**Feb-June 2014**	**CTE teachers, Internship staff,**
CTE Bridge Program for both 8th and 12th grade transitioning students (100) across school district—this activity is a key component to build connections to future success at both the high school and college levels. Students participating in these programs will see the direct connections between their courses at each level and the corresponding work in CTE and STEM careers beyond school.	**June 2015**	**CTE teachers, Internship staff, Bridge Program Coordinator, Higher Education staff**
9th grade transition success indicators: success in CTE engineering class, greater credit earning	**Sept-June 2015**	**CTE teachers, Internship staff,**

among all courses, greater retention of students in 9th grade-- measured by the Portland Metro STEM Partnership staff in our evaluation process, these indicators from the High School CTE Bridge Program will be measured over the course of the year following the program.		**School Administration**
13th grade transition success indicators: credits earned in 13th grade, retention at university/college setting, Internship placement-- measured by the Portland Metro STEM Partnership staff in our evaluation process, these indicators from the College Bridge Program will be measured over the course of the year following this program.	**Sept-June 2016**	**CTE teachers, Internship staff, School Administrations from high school and higher education settings**

Project Outcome #3: Support a series of five (5) networking events that will bring together existing and potential CTE students, schools, and industries.

Outcome #3 Progress Markers--Activity	**Timeline for completion**	**Key personnel**
Industry (12), educator (10), and student (30) participation in the launch event. (Attendance goal)—coinciding with outcome #3 below, this networking event will allow us to also achieve outcome #1. Hosted within a BSD school or partner industry, we anticipate that this kick-off event will allow us to showcase our first Student Profiles as well as significant student work in industry placements for the current year.	**May 2014**	**Internship staff**
Increased participation by industry representatives, educators, and students in subsequent events with a goal of 100% increase by fifth event in May 2015—these quarterly events during the 2014-15 school year will each build upon the success of the former event. Building to a celebration of student, industry partner, and educator success event in May of 2015, we will host these at several school and industry locations. Throughout these events, student success will be showcased using the Student Profiles produced by CMD, teachers, and students. Student and educator work will also be showcased with in-person displays as well.	**Sept-June 2015**	**Internship staff, School and District Administration**
Additional industries "signed on" as partners providing Job Shadows or Internships in Oregon schools—this work, building upon the momentum created by the networking events and the distribution	**June 2016**	**Internship staff, School and District Administrations**

of the Student Profiles will continue throughout the project and beyond. This will also allow for a growing presence of industry partners to connect to schools throughout the school district and beyond.		

Project Outcome #4: Create capacity for students to share their inspirational success stories in CTE education in industry-quality profiles shared through social media with schools, communities and industries.

Outcome #4 Progress Markers--Activity	**Timeline for completion**	**Key personnel**
Communications plan developed and purchase of studio equipment to mentor staff and students	**March 2014**	**CMD staff, Internship staff and School Administration**
First student profile filmed/edited at industry and school locations and ready for distribution on social media to schools and industry partners— we plan to showcase the first of the professionally produced Student Profiles at our first networking event in May of 2014. Showcasing student success, these videos will also highlight the CTE school-industry partnership that fostered the student's success in both high school and beyond.	**May 2014**	**CMD and school staff**
Five additional profiles filmed and edited, ready for distribution—the release of these Student Profiles will be a key activity in the ability of this project to reach out to schools throughout the metro area and the state with the inspiring stories of successful students from a wide diversity of backgrounds. We are most excited about the potential of these videos to bring an increased interest in CTE programs, industry partnerships, and students inspired to their own success.	**Nov. 2014**	**CMD and school staff**
Nine additional profiles filmed and edited from all BSD schools and ready for distribution via social media to schools and industries across Oregon— after the initial series of videos produced professionally by CMD and parallel to their tutoring of teachers and students, the work continues with creating profiles and telling these incredible stories of student success with highlights of the supporting school and industry partnerships.	**June 2015**	**School staff and students successfully capable of sustaining this work**

Project Outcome #5: Support teacher professional development with industry experience to expand our CTE Engineering work into grades 6-8 as well as expand to include a rigorous CTE Biomedical Sciences program in grades 8-12.

Outcome #5 Progress Markers--Activity	**Timeline for completion**	**Key personnel**
Middle school teachers to GTT training through Project Lead the Way—PLTW, known for the quality of their teacher training, will support each of our MS math and science teachers over this one week intensive workshop.	**Aug. 2014**	**PLTW mentors and MS teachers**
All middle and high school math and science teachers embedded in CTE industry experience for at least 40 hours per teacher—this industry-based experience for staff will allow teachers to speak directly to the benefits of these partnerships, identify more with students in Internships and Job Shadows, and build curricular connections between their industry experience and the classroom.	**June 2015**	**MS and HS math and science teachers, Internship staff**
Curricular plans detailed and shared connecting industry experience of teachers to Common Core and Oregon diploma—key evidence of the work from the activity above	**Aug. 2015**	**MS and HS math and science teachers**
High school biomedical teachers actively working with industry partners to attain experience needed for CTE certification—this is a key aspect of the work to build a new Program of Study for Healthcare at HS2. Having seen the benefits of our current CTE program in Engineering, we look forward to the creation of an additional CTE program for the approximately 50% of our high school students interested in healthcare college majors and careers.	**June 2015**	**HS teachers and Internship staff**

G. Evaluation

Outcome #1: Double Internship/Job Shadow opportunities for our students.

Evaluation of this goal will measure the total number of Internships and Job Shadow per year for the period of the grant. The target for this outcome is a minimum of 200 total Internships/Job Shadows and 12 community partners willing to offer Internships/Job Shadows.

Outcome #2: CTE Bridge Program for 8th and 12th graders linking CTE experiences to career and college readiness.

Evaluation of this goal will include measurements of student achievement in at 9th and 13th grades in: overall credit earned, retention of students, specific credits earned in STEM and CTE courses, and student surveys related to their identity as future successful college student and members of the workforce. Particular attention will be paid to our underrepresented minority students for each of these indicators.

Outcome #3: Networking events for CTE students, schools, and industries.

Evaluation of this goal includes attendance and attendance over time for specific participants (retention) and for overall participation among educators and industry partners. Data will also include industry and school participant willingness and action to engage in a school-industry partnership as a result of these networking events.

Outcome #4: Inspirational success stories in CTE education in industry-quality Student Profiles shared through social media with schools, communities and industries.

Evaluation includes measurement of the number of videos (15) produced as well as the affect this has in social media as measured by each video's views. Success will also be indicated by the number and persistence of partners that are willing to amplify these videos through their own networks using social media, web, etc.

Outcome #5: Industry experience for MS and HS teachers of CTE Healthcare and Engineering.

Evaluation of this outcome includes the number of teachers that attend professional development (goal=15), the number of weeks of Engineering and Healthcare curricula taught in MS classrooms, and the establishment of the CTE Program of Study in Healthcare at HS2.

BONUS SECTIONS

A. Career and Technical Student Organizations (CTSOs)

By partnering with Oregon HOSA and having the resources to start a chapter of HOSA here in the Beaverton School District, we are integrating student leadership with the development of our new CTE Program of Study in Healthcare at Health and Science School. Knowing that a strong CTE program has its roots deeply embedded in school, community, and industry partnerships, we intend to bring student voice and leadership to this work. The HS2 HOSA chapter will allow us to focus on creating industry partnerships that not only lead to the outcome of double the Internships/Job Shadows, but also in creating leadership and service opportunities for our students within their industry placements.

As the HOSA slogan states, “Health Science and HOSA; A Healthy Partnership”, we embody the opportunity to bring a strong and needed diversity to the healthcare workforce in Oregon and beyond. HOSA brings with it a four-decade long tradition of fostering leadership and communicating student voice and achievement on a national level. Grant funding from the CTE Revitalization grant and our partnership with Oregon HOSA will allow us to create a strong foundation for our emerging HOSA chapter and CTE Healthcare program.

B. Middle School Component

A core outcome of this project is the inclusion of the existing CTE Engineering program at the middle school grades with the addition of Automation and Robotics and Design and Modeling units from the GTT Project Lead the Way curriculum. We are also going to include a middle school component, the PLTW Medical Detectives unit, at the middle school level as a part of the establishment of a CTE Healthcare Program of Study related to our Biomedical Sciences program.

As a school that includes grades six through twelve for a largely diverse student population, we are confident that this continuum of CTE programming will lead to the results of increased student achievement in CTE courses as measured by credits earned, student achievement in all courses as measured by credits earned, and student retention in school. Nonetheless, we will explicitly connect the middle school curriculum to opportunities for further CTE education and industry connections at the high school level and beyond.

C. Out of School Time Programming

Research and studies over the past several decades have clearly and consistently shown the connections between strong preparation for college success and strong preparation for success in the workplace. By embedding these skills in our curriculum through rigorous academic programming that focuses on relevant and applied learning, we reach many more students that might normally fail in more traditional school settings. This has only been reinforced by our experiences these past five years with the CTE Engineering program.

However, we still see far too many students slip through the cracks and we know that we need early intervention at several levels. The CTE Bridge Program will allow us to bolster student achievement by bringing in 8th and 12th grade students about to transition to the next level of schooling and supporting them with a summer experience highlighting CTE experiences connected to success in Internships, the workplace overall, and continued success in academic classes. We will also use the opportunity to "pre-teach" the skills and content that we know will most benefit students transitioning to the next level. For example, our 8th graders will learn content from our CTE Engineering course in 9th grade as a method to make these students more successful within that challenging course (all 9th graders at HS2 take PLTW's Introduction to Engineering Design). With industry modeling and support, we feel certain that students will see the clear connections between eventual economic goals and their immediate application of effort in the 9th or 13th grades.

D. Focus on Regional, Statewide or System Changes

This project meets the needs of CTE in the region/state in two ways:

1) The proposed networking series will highlight CTE and STEM work, connecting industry leaders and CTE educators with the most engaging part of our K-12 system, our students. Our experience as a school in this area has shown us time and again that partners work hard for student success when they can “put a face” to the students. By showcasing success in CTE/STEM, we create an environment that brings recognition to the hard work of CTE educators, draws in the strong current focus on STEM, and invites industry partners to provide new or further support for CTE programs in schools.

2) The industry-quality Student Profiles videos will highlight the academic achievements and industry experience of our largely underrepresented student and graduate population from across the school district. These profiles can stand as both testament and inspiration for the siblings, peers, and younger students to also connect their work and success in school to their future career. Beyond the diversity of language, ethnicity, income, and family education success, these students also represent a strong diversity of college and career choices within Healthcare and Engineering, each of which indicates a rigorous pathway to success.

E. Science, Technology, Engineering, and Mathematics (STEM)

A core aspect of the work within this proposal highlights and connects STEM courses and careers to existing and proposed CTE work. This comes to light in the following ways:

- A new CTE Program of Study will focus on Healthcare and the Biomedical Sciences.
- The expansion of the existing CTE Engineering POS at Health and Science will bring this STEM curriculum into the MS grades. This also will happen with the new CTE Healthcare POS by bringing the Medical Detectives curriculum into the middle school at Health and Science.
- Student Profiles will highlight students who have met with CTE success, with a specific focus on those from underrepresented minorities with an interest in STEM careers and college majors.
- Networking meetings that will reach out across the school district and the larger metro area will invite STEM industry partners to join in this critical community based network.
- With a focus on industry partners in Healthcare and Engineering, the teacher professional development embedded in industry will support and enhance classroom connections at the middle and high school levels in CTE and STEM courses.