

Instructional Development Project Plan:

Computer Science Program Assessment Final Project

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Organization Background

My choice of this organization for my project was compelled by a passionate interest in improving educational instructional design with the end goal of producing relevant, engaging, individualized learning. My interest in competency-based education is an additional component in my decision to adopt this project for the focus of final project of this course.

Organization Overview

The organization for which this project is being managed is Northwestern College in Orange City, Iowa. Northwestern College is a top ranked, faith based liberal arts college that offers more than fifty undergraduate degree programs, and five areas of concentration in its Graduate School and Adult Learning programs. According the Northwestern College (2017) website, “Northwestern's college computer programming teams were among the top 100 in the world in 2009 and 2010, competing in IBM's annual "Battle of the Brains" alongside teams from MIT, Stanford, Oxford and the University of Moscow” (Programmed for Success, para. 1). The area of focus in this project is Northwestern’s computer science program which offers computer information systems and computer science study opportunities.

Project Partners and Stakeholders

The project partners and stakeholders in this project are: Northwestern College's President, the senior staff, the Vice President of Instruction, the Director of Professional Development, the college’s Director of Institutional Research, a Marketing Consultant, and three lecturers in the Computer Science department. Project team members to be involved are the Assistant Professor of Computer Science and Department Chair, an adjunct professor who has institutional research background and a contract hire instructional designer.

Project Context

A steady decline in enrollment in the two majors in the Computer Science degree program indicates a need for a program assessment. The purpose of this project proposal is to justify funding needed to evaluate the competency of this program. An assessment will be necessary to identify current outcomes skills for a competency based computer science program at the university. This project will require assessment and evaluation of data using both personal interview and computer survey technology. Some possible actions after the assessment are rearrangement of courses within the program majors, mapping areas of study to learning outcomes and course redesign or updating.

Organization's Expectations

Northwestern College's expectations for the instructional design and development project are that it will reveal areas in the computer science program that need to be updated, redesigned and reorganized. A five-year organizational goal of the department chair is that, along with their major, 50% of students who graduate from the institution will have earned a minor in computer science. This project initiative is expected to strengthen the mission of the college by implementing a competency based system of study within the computer science degree program. These improvements will reflect the skills-based education that supports both students' academic and job success in the real world by meeting the needs identified by employers in an assessment and preparing students for their future vocations.

The organizational expectations for the project team are that they will develop a survey, deploy a needs assessment, analyze the results, and communicate all milestone completions, conclusions, and recommendations, to the stakeholders. The project will begin on May 1, 2017 and recommendations will be complete and available to stakeholders by August 1, 2017.

Project Management Process

Models and Processes

The most effective processes for developing the Computer Science Program Assessment for Northwestern College are either the ADDIE or AGILE models. Although there are similarities in the overall processes, depending on the project needs, each one has advantages and disadvantages. A brief description of each process is as follows.

ADDIE: ADDIE stands for Analysis, Design, Development, Implementation, and Evaluation. Culatta (2013) explained, “In the ADDIE model, each step has an outcome that feeds into the subsequent step” (ADDIE Model, para. 4). Starting with the analysis phase, the process moves consecutively through the phases of design, develop, implementation, ending with evaluation where the effectiveness of the project is gauged. During the ADDIE model, the Project Manager would oversee the Startup, Planning, Development and Closeout phases, ensuring that all activities are completed and directing progression to the next one. If the evaluation process discovers any issues in effectiveness of learning or financial ROI, it would be necessary to backtrack to the analysis phase to correct the issues and work back through the entire process again.

AGILE: As Pappas (2015) described, the AGILE method “...encompasses the five stages involved when designing eLearning experiences: **A**lign, **G**et set, **I**terate and **i**mplement, **L**everage and **E**valuate.” (The AGILE Instructional Design Basic Principles, para. 2). Although some sources on AGILE use slightly different labels for the different stages, the process is basically the same in each. In comparison to the ADDIE model, the AGILE model breaks the project into smaller cyclical phases moving through the steps of planning, designing and developing and into the evaluation phase. After assessing the effectiveness of the project so

far, any problems with the design can be addressed and corrected in another iteration phase, using as many as required to arrive at a final effective evaluation. Again, the project manager would oversee each cyclic iteration, ensuring that all activities are completed and directing progression to the next one. A blog post on agilemethodology.org (2008) stated the advantage to the AGILE model is that “Agile approaches help teams respond to unpredictability through incremental, iterative work cadences and empirical feedback. Agilists propose alternatives to waterfall, or traditional sequential development.” (What is AGILE?, para.1). In this project, an alternative to the traditional sequential development method would provide a more efficient design method.

The AGILE instructional design model is the method that will be employed during the lifecycle of this project. This instructional design model will consist of small cyclical phases that move through the steps of planning, designing, developing and evaluating the effectiveness of the design. Each iteration uses the information gained from the evaluation to correct issues in a re-design. Several iterations could occur throughout the entire project life cycle. Huhn (2013) described the AGILE process, “...an iterative method based on collaboration. Agile would focus on adaptation, evolving development, rapid prototyping, and constant feedback and evaluation.” (The Manifesto for Agile Software Development section, para. 2). Each project phase will contain at least one cyclical iteration during which the Project Manager will oversee the cycle’s activities to meet the requirements of the phase, and direct work to the next iteration or phase. This method of small cycle design ensures a more effective and cost effective product. Additionally, it allows for a smoother project management with a smaller design team.

Project Management Life Cycle

The Four-Phase Project Management method consists of Concept/Startup, Planning, Execution, and Closeout. (Satterfield, 2013) This method is most effective with a smaller project team like the one that will be working on the Computer Science Program Assessment at Northwestern College. The Four-Phase Project Management method will allow a project manager to oversee all activities in the project. During the Concept/Initiation phase, the project manager (PM) will oversee the project purpose, budget, staff and resources. In the Planning phase, the PM will oversee planning the tools, resources, finances, activities, risks, and team members for the project. During the Execution/Development phase, the PM will use the information from the Planning phase to direct and coordinate the activities of the project. The Project Manager will also provide the needed resources and make any needed changes to budget, resources and risks. Additionally, the PM will update team members and stakeholders on the project's progress and any changes. (Miller, 2017). When all the project activities are completed, the project enters the Closeout phase. In this phase, the project manager and team will review the projects performance and results, then create a final report and further recommendations for the stakeholders.

As seen in Figure 1 below, the Four-Phase project management lifecycle functions as a framework for the AGILE ID model in this project.

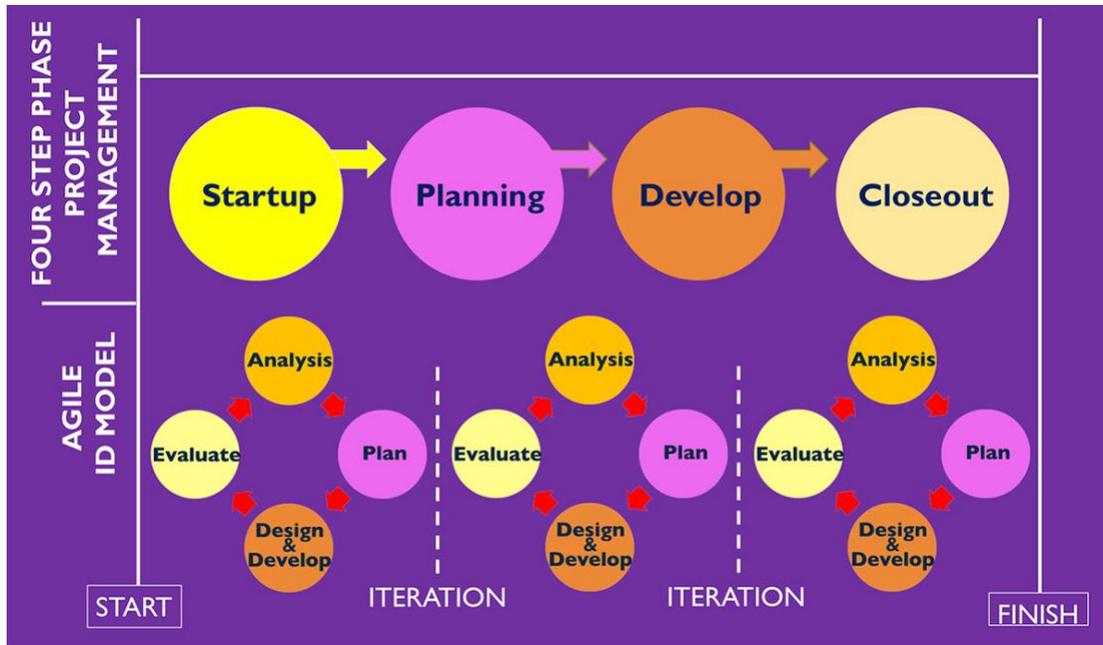


Figure 1. Four Step Phase Project Management and AGILE ID Model. This figure illustrates how the AGILE ID Model functions within the Four Step Phase Project Management method.

An effective AGILE ID model requires both Project Manager oversight and efficient team work. The roles of the project manager and instructional designer and how they will function together in this project are described below.

Project Manager and Roles

Project Partners and Stakeholders

The Project team members who are required to ensure a successful project are the Assistant Professor of Computer Science and Department Chair who will serve as the project manager, a lecturer from the Computer Science department who will serve as a subject matter expert and will share in designing content, and an instructional designer who will oversee the design process. Stakeholders are the President of the College, the senior staff, the Vice President of Instruction, the Director of Professional Development, the college's Director of Institutional

Research, a Marketing Consultant, and three lecturers in the Computer Science department. Stakeholder attendance, feedback, and approval at milestone meetings is a crucial part of the project lifecycle.

Instructional Designer

The role of the lead instructional designer in this project is initially to analyze the learner needs, plan the product concept, and assign roles to other team members. Then using cyclic iterations, the instructional designer will oversee the creation of content, any graphics and animation for online content, and evaluate and revise learning content. Aggarwal (2016) elucidated that the fundamental purpose of Instructional Design is to "identify the skills, knowledge and the attitude gaps of a targeted audience and to create, select and suggest learning experiences that close this gap" (What Do We Really Understand By "Instructional Design"?, para. 1). In addition to the project manager and the instructional designer, the project stakeholders and partners are crucial to the success of the project.

Project Manager

The role the Project Manager will assume in this project is to oversee and carry out an effective project launch and guide the team in the iterative cycles of each project phase. When the requirements of each phase are completed, the PM will direct the team into the activities of the next phase on through to the project closeout. In this case, the project manager has subject matter expertise and contributes with guidance to the instructional design process.

Project Schedule and Budget

Assessment Goal

An organizational goal for the college is that in five years, half of the students who graduate will minor in Computer Science. This initiative will implement a competency based

study method within the computer science degree program that will serve as a skills-based foundation for students' academic and job success. To make these changes to the current program, it will be necessary to perform an assessment of the current program. This assessment will be benchmarked to outcomes and standards of real-life employers and will use criteria obtained from the Accreditation Board for Engineering and Technology, Inc. (ABET), which are a requirement of the for all computer science programs in higher education.

Lakshmanan, et al., (n.d.) explained, ABET is a recognized accreditor of college and university programs in applied science, computing, engineering, and technology... ABET requires each computing program seeking accreditation to develop a clear set of student learning outcomes, collect assessment data, determine the extent to which the outcomes are attained, and use the results of the evaluation to improve the program.” (Introduction section, para. 1, and Outcomes section, para. 1)

These criteria were previously used for accreditation assessment of the current Computer Science program, and will be used again for future assessments.

Project Schedule Description

The project will begin on May 1, 2017 and will last until August 1, 2017. It will take place during the summer months to take advantage of a lighter work load for those project team members who are college staff members. The project team is a small one which consists of the Computer Science Department Chair, who will serve as Project Manager, a Computer Science Department Lecturer who will serve as a Subject Matter Expert, and a contract Instructional Designer. The schedule for this project encompasses the Planning, Development, Assessment/Analysis, and Conclusion phases of the project. The project schedule is divided into

manageable milestones and deliverables that must be accomplished before moving on to the next milestone. The entire project is expected to take three months.

Planning Phase and Milestone One

The Planning phase and milestone one will begin with a design kickoff meeting which will include the project manager and the design team. During this meeting, the project team will set the assessment mission and goals of the Program Educational Outcome and review the project communication plan. After a final team meeting to review and approve the mission, goals, technology tools, and communication plan, a stakeholder meeting will be scheduled to present the mission and goals. Stakeholder approval is expected by the next work day.

The next step will be for the project team to develop a work plan that specifies and delegates team roles. Then using cyclic iterations, instructional designer and subject matter expert will review Computer Science program accreditation standards, determine the assessment audience, instruments, outcomes, and development and evaluation method for the assessment content and revisions. When this task is complete, the project team will review the schedule and team roles for development phase. The project manager will schedule a stakeholder update meeting where the team will present the project work and assessment plan to stakeholders. It is expected that stakeholders will sign off on this plan within one day. The deliverable from milestone one is a completed mission and PEO goal plan, and the project work plan. This will complete both the planning phase and milestone one of the project. Phase one (Planning) and milestone one will last approximately sixty-two hours (eight work days), and are scheduled to conclude on May 15.

Development and Milestones Two

The Development is the second phase of the project and begins with milestone two. In this phase the development of the assessment content will be accomplished. During milestone two, the project manager will contact the assessment focus group to obtain assessment and survey participation commitment. Using cyclic iterations, the subject matter expert and instructional designer will create an assessment plan by identifying the assessment focus group, developing survey and interview contents, testing content, and making any needed design changes. This task is expected to be completed in approximately twelve work days. At that time, the project team will review the assessment/survey material, make any needed changes, then sign off on those tools.

In the next step of the development phase and milestone two, the instructional designer will use cyclic iterations to develop the script for the assessment and survey facilitator. This task is expected to take twenty hours (two and a half workdays). When this task is completed, the project team will review the facilitator script, and make any needed changes. The project team will sign off on the script, and the project manager will schedule an update meeting with the stakeholders. During this meeting, the assessment and survey tools with the facilitator guides will be presented to the stakeholders. It is expected that stakeholders will sign off on this plan within one day. This will complete the development phase and milestone two. The deliverables from this milestone are completed assessment and survey facilitator guides. The approximate deadline to complete the development phase and milestone two is by June 20. This will take approximately one hundred twenty-one hours (fifteen work days).

Assessment/Analysis

The assessment and analysis phase of the project kick-starts milestone three with the assessment and survey deployment preparation. The project manager and the design team will set the assessment and survey deployment day for approximately week after the beginning of this milestone. It is currently scheduled to take place on June 28. As soon as the permanent assessment and survey deployment date is set, the project manager will deploy the assessment focus group invitations. Three days later, the project manager will email reminders to the assessment focus group. On June 28, the project design team will deploy the interview surveys and guides for their own use to conduct the focus group interview. The focus group will be conducted and within one day, the design team will begin to collect and analyze the data. This is expected to take around twenty-four hours. When the analysis is complete, the project team will review the data and sign off on the analysis. Within five days, the design team will create a project report while the project manager schedules final report meeting with the stakeholders. At this point, the project will enter the conclusion phase.

Conclusion

The conclusion phase of the project begins on July 25 with a final stakeholder meeting to present the findings of the assessment and survey and to present recommendations. The stakeholder sign-off is expected to take place one week from the final stakeholder meeting. This final sign-off is scheduled for August 1. This third and last milestone is expected to take around forty-seven hours (six work days) and will be finalized with the end of the closeout phase. The deliverable from milestone three is a final Computer Science Program Assessment Report with recommendations on the redesign of the current college Computer Science program. The final project completion date is also scheduled for August 1, 2017. The approximate total of work

hours for this project is two hundred thirty hours, or twenty-nine work days. The complete project schedule is Table 1 in the appendix section of this document.

Time Constraints and Timeline Risks

Strategies for planning, budgeting of time and resources, and the implementation work plans are constrained by a target timeline of just under three months. The project is scheduled to take place during the summer break period to allow staff members more time to focus on the project and none of the team members are scheduled to take vacation time during this project. Two team members are college staff and faculty, so the project work and meetings will need to be scheduled around any summer break teaching or mentoring commitments.

Low timeline risks are in the scope creep that could be caused by limited stakeholder availability for meetings and by team members missing work time. Since the project work will be performed at the college and the assessment will be created using college internet research resources, the plan to mitigate scope creep involves remote working and the use of technology. On days when team members are not able to make it to work, they may work from home. Since some stakeholders may be on vacation during this project, both team members and stakeholders can use video conferencing to attend meetings. In case team members and stakeholders have illness or other commitments, extra time has been built into each milestone.

A high risk would be the long-term absence of any of the team members. The Computer Science Department Chair who serves as project manager for this project drives the entire Computer Science redesign project, so if she should become unable to fulfill her duties, the project would be canceled until further notice. The plan to mitigate the long-term loss of either the Computer Science Department Lecturer (Subject Matter Expert), or the Instructional Designer is to contract the work to previously identified outside contractors who would serve as

replacements. Because of this possibility, the budget needs include additional contingency funds for the Subject Matter Expert role.

Additional risks are located within team communication. Rawi (2014), explained, “Conflicts among team members result in poor communication, poor designs, interface errors and extra rework” (Project Risk Identification for New Project Manager, para. 11). Clarification of expectations through a schedule that is accessible to all team members and an online site where team members could make work notes, should provide clear team communication. To address communication risks, a digital project management application will be provided with a digital schedule and built in resources to provide effective team communication.

Extra time is built into each project milestone in case of extra lead and lag time in creating the assessment materials, and for possible unavailability of team members and stakeholders. The project is scheduled to take place from May 1, 2017 to August 1, 2017. It consists of three milestones with three deliverables and a final assessment report and recommendations on redesigning the college Computer Science Program.

Project Budget

As seen in Table 2, Estimated Resources for Design and Development Phases, located in the appendix at the end of this document, the budget for this project consists of team member project hours, cost per hour, research and internet access, printing costs, additional expenses and contingency reserves. The total of anticipated work hours for this project is approximately 240 hours. The Project Manager and Subject Matter Expert are employees of the college, so their time expenses are already covered within their current salaries. Since the current project manager is driving this initiative, if her services became unavailable, the project would be placed on hold and rescheduled when she is able to perform her duties. The services of the Subject Matter

Expert are valued at around \$11,817 for this project. If he should become unavailable, a contract SME would need to be hired for around the same rate. The services of the contracted Instructional Designer are approximately \$13,286. Access fees for system access permissions and research resources are already provided by the college with no additional fees. Additional anticipated expenses are the project and facilitator guide printing costs at around \$100. A contingency reserve for additional services of a contract subject matter expert have been included at the rate of \$11,816. A project contingency change and risk reserve of twenty percent of the total project cost at \$2,657 has been added. The total project cost is projected at approximately \$27,860.

Communication Strategies

During the Design kickoff meeting, the team will set the project mission goals, and outcomes that drive the project. When those items are set, a final guide for communication will be agreed upon and placed into practice. In the CIVICUS Internal Communication Toolkit, Hume, (n.d.) advised “Your internal communication strategy should emerge from, and be guided by, your organization’s overall strategic plan. This is because strategic internal communication is simply a step towards helping your organization achieve its aims more effectively” (Overview section, para. 4). The following are basic communication strategy recommendations for internal and external stakeholders throughout the project development process.

The project manager will be responsible for initiating and scheduling team meetings and updates, and will use the project management application Freedcamp to provide a master schedule, project log, calendar, and chat and discussion board capabilities for the use of project team members. This application also offers a calendar, file uploading, milestones, a time tracker, and mobile support in the form of an iPhone application. This application would be used by all team

members to track tasks, share files, and communicate. There is also a mobile app that can be used by team members who are away from their workstations. Amado, et al., (2016) described the use of synchronous communications, "...between team members can be facilitated using conference calls, audio conferencing, and computer assisted video conferencing" (6.1 Types of Communication, Synchronous Communications, para. 2). Basic communication strategies for effective interpersonal collaboration within this project team require that all members use good listening skills, assertiveness in assigned roles and duties, and effective conflict resolution and co-operation skills. Specific use of communication tools is as follows:

Critical project issues: The project manager will email team members either collectively or individually as appropriate. If the issue is a true project or personal emergency, the project manager and team members will either phone or text message anyone concerned. Recipients of the message should respond as soon as possible; preferably within one hour or less.

Digital project log: Important project issues will also be documented in a timely manner by any team member in the Digital project log.

Email protocol: Team members will communicate urgent issues with other team members and the project manager through emails that are marked as "urgent". Team members will reply to emails marked as urgent as soon as possible; preferably within one work day.

Chat rooms and text messages: These tools located within the Freedcamp application will be used by team members and the project manager to discuss non-emergency project issues.

Telephone and text Message Protocol: Non-urgent calls or messages should not be sent after 8pm on weekdays, or on weekends.

Team Building Strategies

Team building strategies for effective team collaboration begin with building a sense of trust and an ability to delegate effectively. (Amado, et al., (2016) explained the concept, “...understanding the knowledge, skills, and abilities needed to manage that work and then matching the team members with the right skills to do that work.” (5.1 Delegation section, Learning Project in Peru, para. 3). The right knowledge, skills and abilities are crucial to a team, however to make this team effective, guidelines for how the team functions must be established. The following steps to build an effective team provided by UC Berkeley’s Human Resources (2016) will be followed by all team members:

- Team will set ground rules for the team.
- Consider each employee's ideas as valuable.
- Be sensitive to teammates unspoken feelings.
- Operate as a harmonious influence on others.
- Employ clear communication.
- Team members will listen, brainstorm, communicate, and share information.
- Team members will delegate problem-solving tasks to other team members.
- Team will establish team values and goals, and will evaluate team performance.
- Team members will ensure that they have a clear idea of accomplishment goals.
- Team members will establish a method and parameters of consensus use.

Additionally, establishing clear expectations, of the team, a context of how each member will contribute, and a sense of commitment to the team and the project are all crucial components for effective teamwork.

Implementation Plan

The use of the Freedcamp project management application will serve to save time, reduce costs, and keep the team on track by serving as a no cost, easy-to-use organizational tool. Using a previously prepared team dashboard, the project manager will implement this internal team collaboration and communication tool in a training session where each team member can learn to use the technology effectively. According to Amado, et al., (2016), “Generally speaking, simple projects will require fewer communication resources...” (6.0 Communication Technologies Overview section, para. 5). Since this project team is small and the project is relatively simple in scale, the communication plan should not require elaborate resources. However, the ground rules that the team discusses and sets in the initial team meeting will be followed. Repeated violations will subject the offender to discipline according to the set ground rules.

Plans for external collaboration and communication tools for working with external stakeholders and clients are accomplished through scheduling meetings using the Freedcamp calendar and milestone tools as organizers and the internal organization’s email system.

Professional Composition

Protocol standards that ensure that all project communications utilize ethical, rhetorical and user-centered strategies require the adherence to the established communication plan. This plan will include clear interactive verbal and written communication, co-operation, and conflict resolution skills. Additionally, the plan will include file-naming and exchanging conventions established by the team in the initial team meeting. The models and formats of internal communication for this project are as described below.

- Urgent or Emergency Communication: Phone and text messaging.

- Non-urgent communication: The college email system and online chat rooms and project notes within the Freedcamp application will be used for communication purposes.
- Meetings: Team meetings: will be held before, during and after each milestone. Meeting minutes will be created using a digital recorder and saved within the Freedcamp Milestone Meeting folders created for team reference.
- Video and Audio conferencing: Will be used by team members who are not able to physically attend meetings.
- File naming conventions: Team members will set file-naming and exchanging conventions at initial team meeting.

The models and formats of external communication for this project are as described below.

- Urgent or Emergency Communication: Phone and text messaging.
- Non-urgent communication: Email, or phone calls during business hours.
- Meetings: Stakeholder meetings held during each milestone. Meeting minutes will be created using a digital recorder and available to stakeholders upon request of the project manager.
- Phone, Video and Audio conferencing: May be used by stakeholders who are not able to physically attend meetings.

Additionally, due to the possibility of vacation time, printed and/or digital meeting minutes and summary will be made available to stakeholders who are not able to attend meetings due to unavailability during summer vacations.

Managing Risk

The high risks in this project are the loss of team members and stakeholder support for the project. In the case of a long-term absence of the project manager, the project would be placed on hold and rescheduled when she is able to perform her duties. If the absence were permanent, the project would be placed on hold until a qualified project champion could be found and the schedule and budget reevaluated. The plan to alleviate the loss of the services for more than two weeks of either the Project Manager or the Instructional Designer, is to contract the work to previously identified outside contractors. To provide for this possibility, the budget will include a contingency reserve for additional funds for the Subject Matter Expert role. Additionally, a contingency of 20% is added to the overall budget to cover any unforeseen change or risks. According to Aston (2012), "You can do this by adding into your estimate a contingency of around 20% of the overall budget for change and risk. This shouldn't be lumped into the costs as fat, but should appear as a separate line item on the item as 'contingency' or similar" (Try a calorie controlled diet with fatty add-ons, para. 1). Low risks are identified as the time loss due to team member illness, or stakeholder unavailability for milestone meetings. In any case, extra time has been built into each milestone to account for these possibilities.

Project Management Technology Tools

The major technology tool used to manage the development of this project is the web based project management application Freedcamp. Freedcamp offers a Dashboard, a calendar, lists, a graphic based organizer, file uploading, discussion boards, a time tracker, milestones, and mobile support for both iPhone and android smart phones. Free for educational institution use, this technology would be used by the project manager to set up the project schedule for project resources, phases, milestones, tasks and budget. It will also be used by project team members

during each project phase and milestone task to verify tasks and track task progression, to share work files, and to collaborate using the discussion boards.

The college email system will be used for communication purposes, and MS Word and Excel spreadsheet applications will be used by the project manager as a base for documentation of work files. MS Word and Excel spreadsheet will also be used by the design team to create the assessment content. A no-cost online survey tool will be chosen by the project design team to deliver a post assessment survey to the assessment focus group participants. All of the assessment and survey data will be collected and analyzed with the help of the MS Excel spreadsheet application, and a final report will be created using MS Word.

Design Deliverables Templates

Links to usable design deliverable templates for project management and budget are in the appendix at the end of this document. Instructions for usage is included with each template.

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Appendix

Phase		Tasks			Effort in Unbillable Hours	Effort Estimate in Hours	Planned Start date	Planned End Date	Resource	Milestone 1 Team Member Hours			Deliverable
Planning			Milestone 1										
	1	Design kickoff meeting.					5/1/17	5/1/17	Project Manager & Design Team	PM	SME	ID	
	1.1	Set Assessment Mission and Goals (Program Educational Outcome (PEO)).				2.00	5/1/17	5/1/17	Project Manager & Design Team	2	2	2	
	1.1.1	Review project communication plan.				0.50	5/1/17	5/1/17	Project Manager & Design Team	0.5	0.5	0.5	
	1.1.2	Team sign-off of Assessment Mission and Goals				0.25	5/1/17	5/1/17	Project Manager & Design Team	0.25	0.25	0.25	
	1.1.3	Schedule meeting with stakeholders.				0.25	5/1/17	5/1/17	Project Manager	0.25	0.25	0.25	
	2	Present Assessment Mission and Goals to Stakeholders.				1.00	5/2/17	5/3/17	Project Manager & Design Team	1	1	1	
	2.1	Stakeholder Sign-off			8	0.00	5/3/17	5/4/17	Project Manager	0	0	0	
	3	Develop Work Plan that assigns team roles.				1.00	05/02/17	5/2/17	Project Manager & Design Team	1	1	1	
	4	Using cyclic iterations, project team performs identification of CS accreditation standards, assessment				55.00	5/4/17	5/15/17	Project Manager & Design Team	55	55	55	

Phase		Tasks			Effort in Unbillable Hours	Effort Estimate in Hours	Planned Start date	Planned End Date	Resource				Deliverable
		audience, instruments, outcomes, development and evaluation method of assessment content and revisions.											
	5.1	Review schedule & team roles for development phase.				1.00	5/3/17	5/5/17	Project Manager & Design Team	1	1	1	
	5.1.1	Schedule meeting with stakeholders.				0.25	5/3/17	5/3/17	Project Manager	0.25	0	0	
	5.1.2	Present work and assessment plan to stakeholders.				1.00	5/5/17	5/5/17	Project Manager & Design Team	1	1	1	
	5.1.3	Stakeholder sign-off.			8	0	5/5/17	5/6/17	Project Manager	0	0	0	
			Milestone 1 Complete		Total Hours	62.25		5/15/17	Totals	62.25	62	62	Completed Mission plan and PEO and Work Plan
Development			Milestone 2							Milestone 2 Team Member Hours			
	1	Develop Assessment Plan					5/15/17	06/02/17		PM	SME	ID	
	1.1	Contact focus group to obtain assessment/survey participation commitment				4.00	5/15/17	5/15/17	Project Manager	4	0	0	
	1.1.1	Using cyclic iterations, instructional designer and SME identify assessment focus				90.00	5/15/17	06/01/17	SME & Instructional Designer	0	90	90	

Phase		Tasks			Effort in Unbillable Hours	Effort Estimate in Hours	Planned Start date	Planned End Date	Resource				Deliverable
		group, develop surveys and interview contents, test content and make design changes.											
	1.1.2	Team Assessment/Survey Review.				2.00	06/02/17	06/02/17	Project Manager & Design Team	2	2	2	
	1.1.3	Team sign-off on Assessment				0.25	06/02/17	06/02/17	Project Manager & Design Team	0.25	0.25	0.25	
	2	Develop facilitator guide for interviews and surveys					05/31/17	06/06/17	Instructional Designer and SME				
	2.1	Using cyclic iterations, instructional designer will write facilitator script.				20.00	06/05/17	06/09/17	Instructional Designer	0	0	20	
	2.1.1	Review facilitator script and make needed changes.				2.00	06/10/17	06/10/17	Project Manager & Design Team	2	2	2	
	2.1.2	Team facilitator script review.				1.00	06/12/17	06/12/17	Instructional Designer	0	0	1	
	2.1.3	Team sign-off on facilitator script.				0.25	06/12/17	06/12/17	Project Manager & Design Team	0.25	0.25	0.25	
	2.1.4	Schedule meeting with stakeholders.				0.25	06/12/17	06/12/17	Project Manager	0.25	0	0	
	2.1.5	Present assessment and survey facilitator guide to stakeholders.				1.00	06/19/17	06/19/17	Project Manager & Design Team	1	1	1	
	2.2.6	Stakeholder sign-off.			8	0	06/19/17	06/20/17	Project Manager	0	0	0	

Phase		Tasks			Effort in Unbillable Hours	Effort Estimate in Hours	Planned Start date	Planned End Date	Resource				Deliverable
			Milestone 2 complete		Total Hours	120.75		06/20/17	Totals	9.75	95.5	116.5	Completed Assessment and survey facilitator guide
			Milestone 3										
Assessment/Analysis										Milestone 3 Team Member Hours			
	1	Assessment/Survey deployment preparation.					06/21/17	06/21/17		PM	SME	ID	
	1.1	Determine survey deployment day.				1.0	06/21/17	06/21/17	Project Manager & Design Team	1	1	1	
	1.1.1	Deploy focus group invitations.				2.0	06/21/17	06/21/17	Project Manager	2	0	0	
	1.1.2	Email focus group reminders.				2.0	06/25/17	06/25/17	Project Manager	2	0	0	
	2	Assessment Survey deployment.					06/28/17	06/28/17					
	2.1	Deploy interview survey assessments and guides				2.0	06/28/17	06/28/17	SME & Instructional Designer	0	2	2	
	2.1.1	Hold focus group interview				3.0	06/28/17	06/28/17	SME & Instructional Designer	0	3	3	
	3	Analysis					06/29/17	07/12/17					
	3.1	Instructional designer and SME collect and analyze data.				24.0	06/29/17	07/06/17	SME & Instructional Designer	0	24	24	
	3.1.1	Team analysis review.				2.0	07/07/17	07/07/17	Project Manager & Design Team	2	2	2	

Table 1, Computer Science Program Assessment Project. This table shows: the project phases; milestones; hours of work per milestone; unbillable time in hours; the planned start and end dates of each task; the team member or resources who will perform the task; the hours worked by each resource on the task; the Milestone Deliverables; project completion date and total work hours for the project and each resource.

Human Resources	Effort in total project hours	Hourly Rate	Dollar Value
Role			
*Project manager	102.35	*45	4605.75
*Subject Matter Expert	337.60	*35	11816.00
**Instructional designer	379.60	**35	13286.00
Total Human Resources hours		819.55	
*Human resource is already on staff and available.			
**Human resource is a contract hire			
Technology Resources			
***System Access Permissions			0
***Research Systems			0
***Software Applications			0
***Costs for this resource iare included in the current college IT plan.			
Additional Costs			
		**ID cost	13286
Printing			100
Contingency Reserve for SME Services			11816
Project Contingency Change and Risk Reserve (20%)			2657.2
		Estimated Total Expenses	27859.2

Table 2, Estimated Resources for Design and Development Phases. This table shows the project human resource roles, effort in project hours, hourly rate, and the total dollar value of each role. The project technology resources and additional costs are also listed with the estimated total project expenses on the bottom right side of the table.

[Computer Science Program Assessment Project template and Project Budget link.](#)