**Project Integration Management**

Michael .D. Harper, Ph.D.

*“Project integration management involves coordinating all of the other project management processes and knowledge areas throughout a project’s life cycle.”*

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|  | **Project Integration Management** | **Process Groups** | | | | |
|  | **Major Processes** | Initiating | Planning | Executing | Monitoring &  Controlling | Closing |
| 🡪 | 1. Develop Project Charter | 1 |  |  |  |  |
| 🡪 | 2. Develop Project Management Plan |  | 2 |  |  |  |
|  | 3. Direct and Manage Project Work |  |  | 3 |  |  |
|  | 4. Monitor and Control Project Work |  |  |  | 4 |  |
| 🡪 | 5. Perform Integrated Change Control |  |  |  | 5 |  |
| 🡪 | 6. Close Project or Phase |  |  |  |  | 6 |

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| **Project Charter.** | A document, a verbal commitment, or an act that   * authorizes the project to begin * initiates the project * provides project overview |

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| **Project Plan** | The project plan is the primary document that   * coordinates all the work within a project and * represents the project to outside constituents |

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| **Integrated Change Control** | Integrated change control is based on:   * Expect change * Plan for change | |
|  | ***Key Elements of Integrated Change Control*** | |
|  | **Change Processes** | **CCB: Change Control Board** |

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| **Close Project** | **Close**. Attain adequate and complete closure of project operations.   * Internal – Administrative, Deliverables, Resources * External – Procurement, Stakeholders, Communications * Lessons Learned – Assets, Stakeholders, Motivation |

**Project Charter.**

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| A document, a verbal commitment, or an act that   * authorizes the project to begin * initiates the project * provides project overview |

Charter must be sufficient for development of subsequent documents:

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| **Charter** | **🡪** | **Scope Statement** | **🡪** | **WBS** |
| Initiates Project |  | Defines Project |  | Identifies Work |

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| The format varies but a charter could include the following entries: | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Charter Development could draw from the following sources: | | | | | | |  |  |  |  |  |  | |  | **Enterprise Environmental Factors** |  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  | |  | **Business Case** |  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  | |  | **Organizational Process Assets** |  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  | |  | **SLA (Service Level Agreement)** |  |  |  |  | |  |  |  |  |  |  | |  |  |  |  |  |  | |  | **SOW (Statement of Work)** |  |  |  |  | |  |  |  |  |  |  | |  |  |  |  | **Charter** |  | |  |  |  |  |  |  | |  |  |  |  |  |  | |
| * Title and date * Project Manager (PM) * Project Description (SOW) * Project Objectives & Deliverables * Project Approach * Key Stakeholders * Sign-off section * Comments |

**Project Derivatives**

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| Enterprise Environmental Factors |  |  |  | Enterprise Environmental Factors |
|  | 🡪 | ***Project*** | 🡪 |  |
| Organizational Process Assets |  |  |  | Organizational Process Assets |

**Event Case Example**

Consider the event description as a case.

**Event Description**

“The Business School will conduct its annual Dean’s Opportunity Breakfast on the morning of May 21 on the Auraria campus for Denver area high school students. The event will be catered and include a guest speaker. The event focuses on encouraging minority and disadvantaged high school students to pursue higher education. The students are identified and invited from Denver metro area high schools. They will be transported by bus from their high schools to the event and back to their high schools. Material and related events are provided to inform and encourage the students and counselors to consider the Business School at UCD. Student and counselor follow-up will be conducted by the staff of the Business School.”

Recall the progression of project deliverables:

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| **Charter** | **🡪** | **Scope Statement** | **🡪** | **WBS** |
| Initiates Project |  | Defines Project |  | Identifies Work |

First, consider a Project Charter from the Event Description. 🡪

**Project Charter – 1**

Project Title: Annual Dean’s Opportunity Breakfast.

Project Start Date: February 1 Project Finish Date: June 30

Project Manager: (***Your Name*)**

Project Description: The Dean’s Opportunity Breakfast will be held on the morning of May 21 on the Auraria campus to encourage minority and disadvantaged high school students to pursue higher education. The event will be catered and include a guest speaker. The students are transported by bus from their high schools to the event and back to their high schools. Material and related events will be provided to inform and encourage the students and counselors to consider the Business School at UCD. Student and counselor follow-up will be conducted by the staff of the Business School.

Project Objectives: This event will be used to promote networking, attract high school students, and reach out to the community. Securing and maintaining positive communications with high school students, counselors, and administrators can enhance the image of UCD to high schools and provide counselors with the knowledge to better direct potential students. Exposure of these high school students to the campus and programs can provide information and encouragement since many of the minority and disadvantaged students are unaware of the opportunities or lack incentive to pursue a higher education. This event is evidence of the continued effort of the Business School to make a positive difference in the community.

Project Deliverables: The event will include identifying students, sending invitations to counselors and students, providing transportation, securing a venue, securing a speaker, catering the event, provide material, arrange for tours, and follow-up with surveys.

Project Approach: The business school will conduct the planning and execution.

Key Project Stakeholders:

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Role | Position | Responsibility |
| Amy | Sponsor | Dean | Director, funding, and final project approval |
| Bob | Sponsor | Associate Dean | Identify internal needs and resources |
| Cindy | Program Director | Director Undergraduate Programs | Documentation approval and project operations |
| *(Your Name)* | Project Manager | Student | Generate Deliverables |

Comments: *For this event, UCD students are invited to attend and participate. Information needed for this event should be coordinate through the program director as the primary contact.*

**Project Charter – 2**

Project Title: Breakfast.

Project Dates: Spring

Project Manager: (***Your Name*)**

Project Description: Provide breakfast to high school students.

Project Objectives: Get high school students to come to college.

Project Deliverables: Food

Project Approach: \_\_\_\_\_\_

Key Project Stakeholders: Sponsor, Project Manager, Team Members

Comments: *None.*

**Project Charter – 3**

The Dean’s Opportunity Breakfast will be held on the morning of May 21 on the Auraria campus to encourage minority and disadvantaged high school students to pursue higher education. The event will be catered and include a guest speaker. The students are transported by bus from their high schools to the event and back to their high schools. Material and related events will be provided to inform and encourage the students and counselors to consider the Business School at UCD. Student and counselor follow-up will be conducted by the staff of the Business School.

**Project Charter – 4**

Project Title: Annual Dean’s Opportunity Breakfast.

Project Start Date: February 1 Project Finish Date: June 30

Project Manager: (***Your Name*)**

Project Description: The Dean’s Opportunity Breakfast will be held on the morning of May 21 on the Auraria campus to encourage minority and disadvantaged high school students to pursue higher education. The event will be catered and include a guest speaker. The students are transported by bus from their high schools to the event and back to their high schools. Material and related events will be provided to inform and encourage the students and counselors to consider the Business School at UCD. Student and counselor follow-up will be conducted by the staff of the Business School.

Project Deliverables: The event will include identifying students, sending invitations to counselors and students, providing transportation, securing a venue, securing a speaker, catering the event, provide material, arrange for tours, and follow-up with surveys.

Project Approach: The business school will conduct the planning and execution.

Key Project Stakeholders:

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| Name | Role | Position | Responsibility |
| Amy | Sponsor | Dean | Director, funding, and final project approval |
| Bob | Sponsor | Associate Dean | Identify internal needs and resources |
| Cindy | Program Director | Director Undergraduate Programs | Documentation approval and project operations |
| *(Your Name)* | Project Manager | Student | Generate Deliverables |

**Project Charter – 5**

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| --- | --- |
| Project Title: | Annual Dean’s Opportunity Breakfast. |
| Project Start | February 1 |
| Project Finish | June 30 |
| Project Manager: | (***Your Name*)** |
| Project Description: | The Dean’s Opportunity Breakfast will be held on the morning of May 21 on the Auraria campus to encourage minority and disadvantaged high school students to pursue higher education. The event will be catered and include a guest speaker. The students are transported by bus from their high schools to the event and back to their high schools. Material and related events will be provided to inform and encourage the students and counselors to consider the Business School at UCD. Student and counselor follow-up will be conducted by the staff of the Business School. |
| Project Objectives: | This event will be used to promote networking, attract high school students, and reach out to the community. Securing and maintaining positive communications with high school students, counselors, and administrators can enhance the image of UCD to high schools and provide counselors with the knowledge to better direct potential students. Exposure of these high school students to the campus and programs can provide information and encouragement since many of the minority and disadvantaged students are unaware of the opportunities or lack incentive to pursue a higher education. This event is evidence of the continued effort of the Business School to make a positive difference in the community. |
| Project Deliverables: | The event will include identifying students, sending invitations to counselors and students, providing transportation, securing a venue, securing a speaker, catering the event, provide material, arrange for tours, and follow-up with surveys. |
| Project Approach: | The business school will conduct the planning and execution. |
| Key Project Stakeholders: | |  |  |  |  | | --- | --- | --- | --- | | Name | Role | Position | Responsibility | | Amy | Sponsor | Dean | Director, funding, and final project approval | | Bob | Sponsor | Associate Dean | Identify internal needs and resources | | Cindy | Program Director | Director Undergraduate Programs | Documentation approval and project operations | | *(Your Name)* | Project Manager | Student | Generate Deliverables | |
| Comments: | *For this event, UCD students are invited to attend and participate. Information needed for this event should be coordinate through the program director as the primary contact.* |

**Project Charter – 6**

The Dean’s Opportunity Breakfast will be held on the morning of May 21 on the Auraria campus to encourage minority and disadvantaged high school students to pursue higher education. The event will be catered and include a guest speaker. The students are transported by bus from their high schools to the event and back to their high schools. Material and related events will be provided to inform and encourage the students and counselors to consider the Business School at UCD. Student and counselor follow-up will be conducted by the staff of the Business School.

This event will be used to promote networking, attract high school students, and reach out to the community. Securing and maintaining positive communications with high school students, counselors, and administrators can enhance the image of UCD to high schools and provide counselors with the knowledge to better direct potential students. Exposure of these high school students to the campus and programs can provide information and encouragement since many of the minority and disadvantaged students are unaware of the opportunities or lack incentive to pursue a higher education. This event is evidence of the continued effort of the Business School to make a positive difference in the community.

The event will start February 1 and end June 30. The event will include identifying students, sending invitations to counselors and students, providing transportation, securing a venue, securing a speaker, catering the event, provide material, arrange for tours, and follow-up with surveys. The business school will conduct the planning and execution.

The key project stakeholders will include the Dean as Sponsor with the authority of director and responsibility of funding and final project approval; the Associate Dean as Sponsor with the responsibility of identifying internal needs and resources; the Director of Undergraduate Programs as Program Director with the responsibility of documentation of the approval and project operations.

For this event, UCD students are invited to attend and participate. Information needed for this event should be coordinate through the program director as the primary contact.

**Project Charter – 7**

Project Title: Annual Dean’s Opportunity Breakfast.

Project Start Date: February 1 Project Finish Date: June 30

Project Manager: (***Your Name*)**

Project Description:

* Held on May 21
* Auraria campus
* For minority and disadvantaged high school students
* Catered
* Guest Speaker
* Transportation provided from high schools to event and back
* Materials provided
* Related events organized
* Follow-up

Project Objectives:

* Promote networking
* Attract high school students
* Reach out to community
* Exposure to higher education
* Provide information
* Provide encouragement

Project Deliverables:

* Identify students
* Send invitations
* Provide transportation
* Secure venue
* Secure speaker
* Secure caterer
* Provide material
* Arrange tours
* Follow-up and surveys

Key Project Stakeholders:

* Amy, Sponsor, Dean, Director, funding, and final project approval
* Bob, Sponsor, Associate Dean, Identify internal needs and resources
* Cindy, Program Director, Director Undergraduate Programs, Documentation approval and project operations

Comments:

* For this event, UCD students are invited to attend and participate.
* Information needed for this event should be coordinate through the program director as the primary contact.

**Project Plan**

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| The project plan is the primary document that   * coordinates all the work within a project and * represents the project to outside constituents |

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| **Project Plan. (Primary document for a project that contains the detailed work.)**   |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  | Process Groups | | | | | |  | Areas | Example |  | Initiate | Plan | Execute | Control | Close | | Integration | Scope | WBS |  |  |  |  |  |  | | Time | Schedule |  |  |  |  |  |  | | Cost | Budget |  |  |  |  |  |  | | Quality | Measurement |  |  |  |  |  |  | | Human Resources | Team |  |  |  |  |  |  | | Communications | Plan |  |  |  |  |  |  | | Risk | Responses |  |  |  |  |  |  | | Procurement | Contracts |  |  |  |  |  |  | | Stakeholder | Validation |  |  |  |  |  |  | |
| **The format of a project plan will depend on the type of project, organization, and project team but categories include:**   * Plans from all the knowledge areas: Scope, Time, Cost, Quality, Human Resources, Communications, Risk, Procurement * Baselines: Scope, Time, Cost * Logs & Traceability Matrix |
| **The project plan could also include:**   * **Overview**. Also called Introduction, Executive Summary, or Description. Provides information about the project. The overview could include: Name of project; Brief statement containing scope, time, cost, justification; Name of Sponsor; Project Manager; Team Members; List of Deliverables; Background; History; Perspective; Expectations; Terminology. * **Organization**. A statement containing the important information about the environment and context of the project. This section could include a description of the project and deliverables, crucial constraints, important frames, and stakeholders. * **Processes**. Describes the technical approach taken to complete project and usually includes the knowledge area plans used in the project. * **Background**. History or information that could clarify such things as the purpose, approach, value, perspective, or characteristics related to the project. * **Comments**. Information outside the scope of the project but related to the project. |

**Integrated Change Control**

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| Integrated change control is based on:   * Expect change * Plan for change |

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| ***Key Elements of Integrated Change Control*** | |
| **Change Processes** | **CCB: Change Control Board** |

Consider the four processes in integrated change control:

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| Identification & Evaluation | Implementation & Verification |

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| Identification & Evaluation (CCB: Change Control Board)   * Source of changes. Who requests, how are they requested, where are they requested, to whom are they requested, and when are they requested. * Analysis of changes. Project impact statement on importance and feasibility of change. |

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|  | Change Accepted |  | Change Rejected | **🡪** | Modify Change or Discard Change |  |
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|  | Implementation & Verification (Change Management & Configuration Management)   * Implementation of changes. How, when, by whom. * Verification of changes. Did change occur? Lessons learned. * Configuration management. Are processes in place and followed? Impact of change to the deliverables of the project. | | | | |  |
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| “Change acceptance” considers types of changes.   * Unplanned. Changes due to regulatory, policy, acts of nature. * Planned. Changes to improve project process or product. * Required. Administrative decision outside of project. * Secondary. Changes due to implementing other changes. |
| “Change rejection” considers value to project.   * Unimportant. Change does not increase value of project. * Feasible. Change does not produce a positive cost/benefit analysis. |

**Close Project**

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| **Close**. Attain adequate and complete closure of project operations.   * Internal – Administrative, Deliverables, Resources * External – Procurement, Stakeholders, Communications * Lessons Learned – Assets, Stakeholders, Motivation |

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| **Project Completed 🡪 Project Terminated** |

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| **Internal.**  Administrative: Once work is validated within all plans and scope is verified with all stakeholders, then project completion is documented and communicated.  Deliverables: Transfer from project to organization. Handing off of project deliverables, integrating project results into operations, or passing on the project assets.  Resources. Release of organizational resources which can include facilities, equipment, and employees. |
| **External**.  Procurement. Once outsourced work is completed and the transfer of payments are recognized, then acquire the formal end of contracts.  Stakeholders. Verify scope with all external stakeholders.  Communications. Announce or report the close of the project to all stakeholders. |
| **Lessons Learned**.  Assets: Update Organizational Assets learned from the project.  Stakeholders: Update information in the Stakeholder Profile.  Motivation: Review positive elements of the project to encourage and negative elements of the project to improve. |