| Project Management Fundamental Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| A Guide to the Project Management Body of Knowledge (PMBOK Guide) | The PMI publication that defines widely accepted project management practices. The CAPM and the PMP exam are based on this book. |
| Application areas | The areas of expertise, industry, or function where a project is centered. Examples of application areas include architecture, IT, health care, and manufacturing. |
| Business value | A quantifiable return on investment. The return can be tangible, such as equipment, money, or market share. The return can also be intangible, such as brand recognition, trademarks, and reputation. |
| Certified Associate in Project Management (CAPM) | A person who has slightly less project management experience than a PMP, but who has qualified for and then passed the CAPM examination. |
| Cultural and social environment | Defines how a project affects people and how those people may affect the project. Cultural and social environments include the economic, educational, ethical, religious, demographic, and ethnic composition of the people affected by the project. |
| Deliverable | A product, service, or result created by a project. Projects can have multiple deliverables. |

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| General management skills | These include the application of accounting, procurement, sales and marketing, contracting, manufacturing, logistics, strategic planning, human resource management, standards and regulations, and information technology. |
| International and political environment | The consideration of the local and international laws, languages, communication challenges, time zone differences, and other non-collocated issues that affect a project's ability to progress. |
| Interpersonal skills | The ability to interact, lead, motivate, and manage people. |
| Iron Triangle of Project Management | A triangle with the characteristics of time, cost, and scope. Time, cost, and scope each constitute one side of the triangle; if any side of the Iron Triangle is not in balance with the other sides, the project will suffer. The Iron Triangle of Project Management is also known as the Triple Constraints of Project Management, as all projects are constrained by time, cost, and scope. |
| Physical environment | The physical structure and surroundings that affect a project's work. |
| Process groups | A collection of related processes in project management. There are five process groups and 49 project management processes. The five process groups are Initiating, Planning, Executing, Monitoring and Controlling, and Closing. |
| Program | A collection of related projects working in unison toward a common deliverable. |
| Progressive elaboration | The process of gathering project details. This process uses deductive reasoning, logic, and a series of information-gathering techniques to identify details about a project, product, or solution. |

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| Project | A temporary endeavor to create a unique product, service, or result. The end result of a project is also called a deliverable. |
| Project benefits management plan | A documented created and maintained by the project sponsor and the project manager. The project benefits management plan defines what benefits the project will create, when the benefits will be realized, and how the benefits will be measured. |
| Project business case | Created and maintained by the project sponsor and shows the financial validity of why a project is chartered and launched within the organization. Typically, the project business case is created before the launch of the project and may be used as a go/no-go decision point. |
| Project environment | The location and culture of the environment where the project work will reside. The project environment includes the social, economic, and environmental variables the project must work with or around. |
| Project Management Institute (PMI) | An organization of project management professionals from around the world, supporting and promoting the careers, values, and concerns of project managers. |
| Project life cycle | The phases that make up the project. Project life cycles are unique to the type of work being performed and are not universal to all projects. |
| Project management office (PMO) | A central office that oversees all projects within an organization or within a functional department. A PMO supports the project manager through software, training, templates, policies, communication, dispute resolution, and other services. |

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| Project Management Professional (PMP) | A person who has proven project management experience and has qualified for and then passed the PMP examination. |
| Project portfolio management | The management and selection of projects that support an organization's vision and mission. It is the balance of project priority, risk, reward, and return on investment. This is a senior management process. |
| Subprojects | A smaller project managed within a larger, parent project. Subprojects are often contracted work whose deliverable allows the larger project to progress. |
| Triple Constraints of Project Management | Also known as the Iron Triangle. This theory posits that time, cost, and scope are three constraints that every project has. |
| Work performance data | Raw data, observations, and measurements about project components. Work performance data is gathered and stored in the project management information system. |
| Work performance information | Work performance information is the processed and analyzed data that will help the project manager make project decisions. |
| Work performance reports | Work performance reports is the formatted communication of work performance information. Work performance reports communicate what's happening in the project through status reports, memos, dashboards, or other modalities. |

| Project Management Environments | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Balanced matrix structure | An organization where organizational resources are pooled into one project team, but the functional managers and the project managers share the project power. |
| Cultural norms | Cultural norms describe the culture and the styles of an organization. Cultural norms, such as work ethics, hours, view of authority, and shared values, can affect how the project is managed. |
| Enterprise environmental factors | Conditions that affect how the project manager may manage the project. Enterprise environmental factors come from within the project, such as policy, or they be external to the organization, such as law or regulation. |
| Functional structure | An organization that is divided into functions, and each employee has one clear functional manager. Each department acts independently of the other departments. A project manager in this structure has little to no power and may be called a project coordinator. |
| Governance framework | Governance framework describes the rules, policies, and procedures that people within an organization abide by. Governance framework addresses the organization, but also address portfolios, programs, and projects. Regarding portfolios, programs, and projects the governance framework addresses alignment with organizational vision, risk management, performance factors, and communication. |

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| Hybrid structure | An organization that creates a blend of the functional, matrix, and project-oriented structures. |
| Multidivisional structure | Describe organizations that have duplication of efforts within the organization, but not within each department or division of the organization. Project manager has little authority in this structure and the functional manager controls the project budget. |
| Organic or simple | Describes a loosely organized business or organization. There likely aren't big formal departments and people work alongside one another regardless of roles and titles. The project manager likely has little control over the project resources and may not be called a project manager. |
| Organizational process assets | Organizational process assets include organizational processes, policies, procedures, and items from a corporate knowledge base. Organizational process assets are grouped into two categories to consider: processes, policies and procedures, and organizational knowledge bases. |
| Organizational Knowledge Repositories | Organizational knowledge repositories are the databases, files, and historical information that you can use to help better plan and manage your projects. This is an organizational process asset that is created internally to your organization through the ongoing work of operations and other projects. |

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| Organizational System | A system can create things by working with multiple components that the individual components could not create if they worked alone. The structure of the organization and the governance framework creates constraints that affect how the project manager makes decisions within the project. The organizational system directly affects how the project manager utilizes their power, influence, leadership, and even political capital, to get things done in the environment. |
| Project management office (PMO) | A business unit that centralizes the operations and procedures of all projects within the organization. The PMO can be supportive, controlling, or directive. |
| Project-oriented structure | An organization that assigns a project team to one project for the duration of the project life cycle. The project manager has high-to-almost-complete project power. |
| Strong matrix structure | An organization where organizational resources are pooled into one project team, but the functional managers have less project power than the project manager. |
| Virtual organization | Uses a network structure to communicate and interact with other groups and departments. A point of contact exists for each department and these department point of contact receive and send all messages for the department. |
| Weak matrix structure | An organization where organizational resources are pooled into one project team, but the functional managers have more project power than the project manager. |

| Project Manager Role | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| active listening | The message receiver restates what's been said to fully understand and confirm the message and it provides an opportunity for the sender to clarify the message if needed. |
| active problem solving | Active problem solving begins with problem definition. Problem definition is the ability to discern between the cause and effect of the problem. Root-cause analysis looks beyond the immediate symptoms to the cause of the symptoms—which then affords opportunities for solutions. |
| avoiding power | The project manager refuses to act, get involved, or make decisions. |
| charismatic leadership | The leader is motivating, has high-energy, and inspires the team through strong convictions about what's possible and what the team can achieve. Positive thinking and a can-do mentality are characteristics of a charismatic leader. |
| expert power | The project manager has deep skills and experience in a discipline (for example, years of working in IT helps an IT project manager better manage IT projects). |
| ingratiating power | The project manager aims to gain favor with the project team and stakeholders through flattery. |
| informational power | The individual has power and control of the data gathering and distribution of information. |

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| interactional leadership | The leader is a hybrid of transactional, transformational, and charismatic leaders. The interactional leader wants the team to act, is excited and inspired about the project work, yet still holds the team accountable for their results. |
| guilt-based power | The project manager can make the team and stakeholders feel guilty to gain compliance in the project. |
| leadership | Leadership is about aligning, motivating, and inspiring the project team members to do the right thing, build trust, think creatively, and to challenge the status quo. |
| laissez-faire leadership | The leader takes a “hands-off” approach to the project. This means the project team makes decisions, takes initiative in the actions, and creates goals. While this approach can provide autonomy, it can make the leader appear absent when it comes to project decisions. |
| management | Management utilizes positional power to maintain, administrate, control, and focus on getting things done without challenging the status quo of the project and organization. |
| media selection | Based on the audience and the message being sent, the media should be in alignment with the message. |
| meeting management | Meetings are forms of communication. How the meeting is led, managed, and controlled all influence the message being delivered. Agendas, minutes, and order are mandatory for effective communications within a meeting. |
| personal or charismatic power | The project manager has a warm personality that others like. |

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| presentation | In formal presentations, the presenter's oral and body language, visual aids, and handouts all influence the message being delivered. |
| pressure-based power | The project manager can restrict choices to get the project team to perform and do the project work. |
| PMI Talent Triangle | Defines three areas of PDUs for PMI certified professionals to maintain their certification. The PMI Talent Triangle includes technical project management, leadership, and strategic and business management. |
| positional power | The project manager's power is because of the position she has as the project manager. This is also known as formal, authoritative, and legitimate power. |
| Professional Development Units (PDUs) | PDUs are earned after the PMP to maintain the PMP certification. PMPs are required to earn 60 PDUs per three-year certification cycle. Of the 60 PDUs, a minimum of 35 hours must come from educational opportunities. |
| project manager | The role of leading the project team and managing the project resources to effectively achieve the objectives of the project. |
| punitive or coercive power | The project manager can punish the project team. |
| referent power | The project manager is respected or admired because of the team's past experiences with the project manager. This is about the project manager's credibility in the organization. |
| reward power | The project manager can reward the project team. |

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| sender-receiver models | Communication requires a sender and a receiver. Within this model may be multiple avenues to complete the flow of communication, but barriers to effective communication may be present as well. |
| servant leadership | The leader puts others first and focuses on the needs of the people he serves. Servant leaders provide opportunity for growth, education, autonomy within the project, and the well-being of others. The primary focus of servant leadership is service to others. |
| situational power | The project manager has power because of certain situations in the organization. |
| style | The tone, structure, and formality of the message being sent should be in alignment with the audience and the content of the message. |
| transactional leadership | The leader emphasizes the goals of the project and rewards and disincentives for the project team. This is sometimes called management by exception as it's the exception that is reward or punished. |
| transformational leadership | The leader inspires and motivates the project team to achieve the project goals. Transformational leaders aim to empower the project team to act, be innovative in the project work, and accomplish through ambition. |

| Project Integration Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Assumption log | An assumption is something that is believed to be true or false, but it has not yet been proven to be true or false. Assumptions that prove wrong can become risks for the project. All identified project assumptions are recorded in the assumption log for testing and analysis, and the outcomes are recorded. |
| Benefit/cost ratio (BCR) models | This is an example of a benefits comparison model. It examines the benefit-to-cost ratio. |
| Change control board (CCB) | A committee that evaluates the worthiness of a proposed change and either approves or rejects the proposed change. |
| Change control system (CCS) | The change control system communicates the process for controlling changes to the project deliverables. This system works with the configuration management system and seeks to control and document proposals to change the project's product. |
| Change log | All changes that enter into a project are recorded in the change log. The characteristics of the change, such as the time, cost, risk, and scope details, are also recorded. |
| Change management plan | This plan details the project procedures for entertaining change requests: how change requests are managed, documented, approved, or declined. |

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| Closure processes | This final process group of the project management life cycle is responsible for closing the project phase or project. This is where project documentation is archived and project contracts are also closed. |
| Communications management plan | This plan defines who will get what information, how they will receive it, and in what modality the communication will take place. |
| Configuration identification | This includes the labeling of the components, how changes are made to the product, and the accountability of the changes. |
| Configuration management plan | This plan is an input to the control scope process. It defines how changes to the features and functions of the project deliverable, the product scope, may enter the project. |
| Configuration management system | This system defines how stakeholders are allowed to submit change requests, the conditions for approving a change request, and how approved change requests are validated in the project scope. Configuration management also documents the characteristics and functions of the project's products and any changes to a product's characteristics. |
| Configuration status accounting | The organization of the product materials, details, and prior product documentation. |
| Configuration verification and auditing | The scope verification and completeness auditing of project or phase deliverables to ensure that they are in alignment with the project plan. |
| Contract closure | The formal verification of the contract completeness by the vendor and the performing organization. |

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| Cost baseline | This is the aggregated costs of all of the work packages within the work breakdown structure (WBS). |
| Cost management plan | This plan details how the project costs will be planned for, estimated, budgeted, and then monitored and controlled. |
| Explicit knowledge | Knowledge that can be quickly and easily expressed through conversations, documentation, figures, or numbers, is easily communicated. |
| Future value | A benefit comparison model to determine a future value of money. The formula to calculate future value is $FV = PV(1 + I)^n$, where PV is present value, I is the given interest rate, and n is the number of periods. |
| Integrated change control | A process to consider and control the impact of a proposed change on the project's knowledge areas. |
| Issue log | Issues are points of contention where some question of the project's direction needs to be resolved. All identified issues are documented in the issue log, along with an issue owner and a deadline to resolve the issue. The outcome of the issue is also recorded. |
| Mathematical model | A project selection method to determine the likelihood of success. These models include linear programming, nonlinear programming, dynamic programming, integer programming, and multiobjective programming. |
| Milestone | Milestones are significant points or events in the project's progress that represent accomplishment in the project. Projects usually create milestones as the result of completing phases within the project. |

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| Milestone list | This list details the project milestones and their attributes. It is used for several areas of project planning, but also helps determine how quickly the project may be achieving its objectives. |
| Murder boards | These are committees that ask every conceivable negative question about the proposed project. Their goals are to expose the project's strengths and weaknesses, and to kill the project if it's deemed unworthy for the organization to commit to. Also known as project steering committees or project selection committees. |
| Net present value | Evaluates the monies returned on a project for each period the project lasts. |
| Payback period | An estimate to predict how long it will take a project to pay back an organization for the project's investment of capital. |
| Present value | A benefit comparison model to determine the present value of a future amount of money. The formula to calculate present value is $PV = FV \div (1 + i)^n$, where FV is future value, I is the given interest rate, and n is the number of periods. |
| Procurement management plan | The procurement management plan controls how the project will acquire goods and services. |
| Project charter | This document authorizes the project. It defines the initial requirements of the project stakeholders. The project charter is endorsed by an entity outside of the project boundaries. |
| Project management plan | The documented approach of how a project will be planned, executed, monitored and controlled, and then closed. This document is a collection of subsidiary management plans and related documents. |

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| Project scope management plan | Defines how the project scope will be planned, managed, and controlled. |
| Quality baseline | Documents the quality objectives for the project, including the metrics for stakeholder acceptance of the project deliverable. |
| Quality management plan | This plan defines what quality means for the project, how the project will achieve quality, and how the project will map to organizational procedures pertaining to quality. |
| Regression analysis | A mathematical model to examine the relationship among project variables, like cost, time, labor, and other project metrics. |
| Risk management plan | Risk is an uncertain event or condition that may affect the project outcome. The risk management plan defines how the project will manage risk. |
| Risk register | The risk register is a centralized database consisting of the outcome of all the other risk management processes, such as the outcome of risk identification, qualitative analysis, and quantitative analysis. |
| Risk response plan | This subsidiary plan defines the risk responses that are to be used in the project for both positive and negative risks. |
| Schedule baseline | This is the planned start and finish of the project. The comparison of what was planned and what was experienced is the schedule variance. |
| Schedule management plan | Defines how the project schedule will be created and managed. |

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| Scope baseline | The scope baseline is a combination of three project documents: the project scope statement, the work breakdown structure, and the WBS dictionary. The creation of the project deliverable will be measured against the scope baseline to show any variances from what was expected and what the project team has created. |
| Scoring models | These models use a common set of values for all of the projects up for selection. For example, values can be profitability, complexity, customer demand, and so on. |
| tacit knowledge | Knowledge that's more difficult to express because it's personal beliefs, values, knowledge gain from experience, and "know-how" when doing a task. |

| Project Scope Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| 8/80 Rule | A planning heuristic for creating the WBS. This rule states that the work package in a WBS must take no more than 80 hours of labor to create and no fewer than 8 hours of labor to create. |
| Active observation | The observer interacts with the worker to ask questions and understand each step of the work being completed. In some instances, the observer could serve as an assistant in doing the work. |
| Affinity diagrams | When stakeholders create a large number of ideas, you can use an affinity diagram to cluster similar ideas together for further analysis. |
| Alternatives generation | A scope definition process of finding alternative solutions for the project customer while considering the customer's satisfaction, the cost of the solution, and how the customer may use the product in operations. |
| Autocratic | A decision method where only one individual makes the decision for the group. |
| Brainstorming | This approach encourages participants to generate as many ideas as possible about the project requirements. No idea is judged or dismissed during the brainstorming session. |
| Change control system (CCS) | Documented in the scope management plan, this system defines how changes to the project scope are managed and controlled. |

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| Change management plan | This subsidiary plan defines how changes will be allowed and managed within the project. |
| Code of accounts | A numbering system for each item in the WBS. The PMBOK is a good example of a code of accounts, as each chapter and its subheadings follow a logical numbering scheme. For example, PMBOK 5.3.3.2 identifies an exact paragraph in the PMBOK. |
| Configuration management plan | This subsidiary plan defines how changes to the features and functions of the project deliverables will be monitored and controlled within the project. |
| Context diagram | These diagrams show the relationship between elements of an environment. For example, a context diagram would illustrate the networks, servers, workstations, and people that interact with the elements of the environment. |
| Focus groups | A moderator-led requirements collection method to elicit requirements from stakeholders. |
| Functional analysis | This is the study of the functions within a system, project, or, what's more likely in the project scope statement, the product the project will be creating. Functional analysis studies the goals of the product, how the product will be used, and the expectations the customer has of the product once it leaves the project and moves into operations. Functional analysis may also consider the cost of the product in operations, which is known as life-cycle costing. |
| Funding limit | Most projects have a determined budget in relation to the project scope. There may be a qualifier on this budget, such as plus or minus 10 percent based on the type of cost estimate created. |

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| Interviews | A requirements collection method used to elicit requirements from stakeholders in a one-on-one conversation. |
| Majority | A group decision method where more than 50 percent of the group must be in agreement. |
| Mind mapping | This approach maps ideas to show the relationship among requirements and the differences between requirements. The map can be reviewed to identify new solutions or to rank the identified requirements. |
| Nominal group technique | As with brainstorming, participants are encouraged to generate as many ideas as possible, but the suggested ideas are ranked by a voting process. |
| Passive observation | The observer records information about the work being completed without interrupting the process; sometimes called the invisible observer. |
| Plurality | A group-decision method where the largest part of the group makes the decision when it's less than 50 percent of the total. (Consider three or four factions within the stakeholders.) |
| Product acceptance criteria | This project scope statement component works with the project requirements, but focuses specifically on the product and what the conditions and processes are for formal acceptance of the product. |
| Product breakdown | A scope definition technique that breaks down a product into a hierarchical structure, much like a WBS breaks down a project scope. |
| Product scope description | This is a narrative description of what the project is creating as a deliverable for the project customer. |

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| Product scope | Defines the product or service that will come about as a result of completing the project. It defines the features and functions that characterize the product. |
| Project assumptions | A project assumption is a factor in the planning process that is held to be true but not proven to be true. |
| Project boundaries | A project boundary clearly states what is included with the project and what's excluded from the project. This helps to eliminate assumptions between the project management team and the project customer. |
| Project constraints | A constraint is anything that limits the project manager's options. Consider a predetermined budget, deadline, resources, or materials the project manager must use within the project—these are all examples of project constraints. |
| Project objectives | These are the measurable goals that determine a project's acceptability to the project customer and the overall success of the project. Objectives often include the cost, schedule, technical requirements, and quality demands. |
| Project requirements | These are the demands set by the customer, regulations, or the performing organization that must exist for the project deliverables to be acceptable. Requirements are often prioritized in a number of ways, from "must have" to "should have" to "would like to have." |
| Project scope | This defines all of the work, and only the required work, to complete the project objectives. |

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| Project scope management plan | This project management subsidiary plan controls how the scope will be defined, how the project scope statement will be created, how the WBS will be created, how scope validation will proceed, and how the project scope will be controlled throughout the project. |
| Requirements documentation | This documentation of what the stakeholders expected in the project defines all of the requirements that must be present for the work to be accepted by the stakeholders. |
| Requirements management plan | This subsidiary plan defines how changes to the project requirements will be permitted, how requirements will be tracked, and how changes to the requirements will be approved. |
| Requirements traceability matrix (RTM) | This is a table that maps the requirements throughout the project all the way to their completion. |
| Schedule milestones | The project customer may have specific dates when phases of the project should be completed. These milestones are often treated as project constraints. |
| Scope creep | Undocumented, unapproved changes to the project scope. |
| Scope validation | The formal inspection of the project deliverables, which leads to project acceptance. |

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| Stakeholder analysis | A scope definition process where the project management team interviews the stakeholders and categorizes, prioritizes, and documents what the project customer wants and needs. The analysis is to determine, quantify, and prioritize the interests of the stakeholders. Stakeholder analysis demands quantification of stakeholder objectives; goals such as “good,” “satisfaction,” and “speedy” aren’t quantifiable. |
| Systems analysis | A scope definition approach that studies and analyzes a system, its components, and the relationship of the components within the system. |
| Systems engineering | This project scope statement creation process studies how a system should work, designs and creates a system model, and then enacts the working system based on the project’s goals and the customer’s expectations. Systems engineering aims to balance the time and cost of the project in relation to the scope of the project. |
| Unanimity | A group decision method where everyone must be in agreement. |
| Value analysis | As with value engineering, this approach examines the functions of the project’s product in relation to the cost of the features and functions. This is where, to some extent, the grade of the product is in relationship to the cost of the product. |
| Value engineering | This approach to project scope statement creation attempts to find the correct level of quality in relation to a reasonable budget for the project deliverable while still achieving an acceptable level of performance of the product. |

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| WBS dictionary | A WBS companion document that defines all of the characteristics of each element within the WBS. |
| WBS template | A prepopulated WBS for repetitive projects. Previous projects' WBSs are often used as templates for current similar projects. |
| Work breakdown structure (WBS) | A deliverables-oriented breakdown of the project scope. |
| Work package | The smallest item in the WBS. |
| Work performance information | Status of the deliverables: the work that's been started, finished, or has yet to begin. |

| Project Schedule Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Activity list | The primary output of breaking down the WBS work packages. |
| Alternative analysis | The identification of more than one solution. Consider roles, materials, tools, and approaches to the project work. |
| Analogous estimating | A somewhat unreliable estimating approach that relies on historical information to predict what current activity durations should be. Analogous estimating is more reliable, however, than team member recollections. Analogous estimating is also known as top-down estimating and is a form of expert judgment. |
| Bottom-up estimating | The most accurate time-and-cost estimating approach a project manager can use. This estimating approach starts at “the bottom” of the project and considers every activity, its predecessor and successor activities, and the exact amount of resources needed to complete each activity. |
| Control account | A WBS entry that considers the time, cost, and scope measurements for that deliverable within the WBS. The estimated performance is compared against the actual performance to measure overall performance for the deliverables within that control account. The specifics of a control account are documented in a control account plan. |

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| Control threshold | A predetermined range of acceptable variances, such as +/–10 percent off schedule. Should the variance exceed the threshold, then project control processes and corrected actions will be enacted. |
| Crashing | A schedule compression approach that adds more resources to activities on the critical path to complete the project earlier. When crashing a project, costs are added because the associated labor and sometimes resources (such as faster equipment) cause costs to increase. |
| Critical path | The path in the project network diagram that cannot be delayed, otherwise the project completion date will be late. There can be more than one critical path. Activities in the critical path have no float. |
| Discretionary dependencies | These dependencies are the preferred order of activities. Project managers should use these relationships at their discretion and should document the logic behind the decision. Discretionary dependencies allow activities to happen in a preferred order because of best practices, conditions unique to the project work, or external events. Also known as preferential or soft logic. |
| Early finish | The earliest a project activity can finish. Used in the forward pass procedure to discover the critical path and the project float. |
| Early start | The earliest a project activity can begin. Used in the forward pass procedure to discover the critical path and the project float. |

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| External dependencies | As the name implies, these are dependencies outside of the project's control. Examples include the delivery of equipment from a vendor, the deliverable of another project, or the decision of a committee, lawsuit, or expected new law. |
| Fast tracking | A schedule compression method that changes the relationship of activities. With fast tracking, activities that would normally be done in sequence are allowed to be done in parallel or with some overlap. Fast tracking can be accomplished by changing the relation of activities from FS to SS or even FF or by adding lead time to downstream activities. However, fast tracking does add risk to the project. |
| Finish-to-finish | An activity relationship type that requires the current activity to be finished before its successor can finish. |
| Finish-to-start | An activity relationship type that requires the current activity to be finished before its successor can start. |
| Fragnet | A representation of a project network diagram that is often used for outsourced portions of a project, repetitive work within a project, or a subproject. Also called a subnet. |
| Free float | This is the total time a single activity can be delayed without affecting the early start of its immediately following successor activities. |
| Hard logic | Logic that describes activities that must happen in a particular order. For example, the dirt must be excavated before the foundation can be built. The foundation must be in place before the framing can begin. Also known as a mandatory dependency. |

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| Internal dependencies | Internal relationships to the project or the organization. For example, the project team must create the software as part of the project's deliverable before the software can be tested for quality control. |
| Lag time | Positive time that moves two or more activities further apart. |
| Late finish | The latest a project activity can finish. Used in the backward pass procedure to discover the critical path and the project float. |
| Late start | The latest a project activity can begin. Used in the backward pass procedure to discover the critical path and the project float. |
| Lead time | Negative time that allows two or more activities to overlap where ordinarily these activities would be sequential. |
| Management reserve | A percentage of the project duration to combat Parkinson's Law. When project activities become late, their lateness is subtracted from the management reserve. |
| Mandatory dependencies | These dependencies are the natural order of activities. For example, you can't begin building your house until your foundation is in place. These relationships are called hard logic. |

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| Monte Carlo analysis | A project simulation approach named after the world-famous gambling district in Monaco. This predicts how scenarios may work out, given any number of variables. The process doesn't actually churn out a specific answer, but a range of possible answers. When Monte Carlo analysis is applied to a schedule, it can examine, for example, the optimistic completion date, the pessimistic completion date, and the most likely completion date for each activity in the project and then predict a mean for the project schedule. |
| Parametric estimate | A quantitatively based duration estimate that uses mathematical formulas to predict how long an activity will take based on the quantities of work to be completed. |
| Parkinson's Law | A theory that states: "Work expands so as to fill the time available for its completion." It is considered with time estimating, because bloated or padded activity estimates will fill the amount of time allotted to the activity. |
| Planning package | A WBS entry located below a control account and above the work packages. A planning package signifies that there is more planning that needs to be completed for this specific deliverable. |
| Precedence diagramming method | A network diagram that shows activities in nodes and the relationship between each activity. Predecessors come before the current activity, and successors come after the current activity. |
| Project calendars | Calendars that identify when the project work will occur. |
| Project float | This is the total time the project can be delayed without passing the customer-expected completion date. |

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| Project network diagram | A diagram that visualizes the flow of the project activities and their relationships to other project activities. |
| Refinement | An update to the work breakdown structure. |
| Resource breakdown structure (RBS) | This is a hierarchical breakdown of the project resources by category and resource type. For example, you could have a category of equipment, a category of human resources, and a category of materials. Within each category, you could identify the types of equipment your project will use, the types of human resources, and the types of materials. |
| Resource calendars | Calendars that identify when project resources are available for the project work. |
| Resource-leveling heuristic | A method to flatten the schedule when resources are overallocated. Resource leveling can be applied using different methods to accomplish different goals. One of the most common methods is to ensure that workers are not overextended on activities. |
| Rolling wave planning | The imminent work is planned in detail, while the work in the future is planned at a high level. This is a form of progressive elaboration. |
| Schedule management plan | A subsidiary plan in the project management plan. It defines how the project schedule will be created, estimated, controlled, and managed. |
| Soft logic | The activities don’t necessarily have to happen in a specific order. For example, you could install the light fixtures first, then the carpet, and then paint the room. The project manager could use soft logic to change the order of the activities if so desired. |

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| Start-to-finish | An activity relationship that requires an activity to start so that its successor can finish. This is the most unusual of all the activity relationship types. |
| Start-to-start | An activity relationship type that requires the current activity to start before its successor can start. |
| Subnet | A representation of a project network diagram that is often used for outsourced portions of projects, repetitive work within a project, or a subproject. Also called a fragnet. |
| Template | A previous project that can be adapted for the current project and forms that are pre-populated with organizational-specific information. |
| Three-point estimate | An estimating technique for each activity that requires optimistic, most likely, and pessimistic estimates to be created. Based on these three estimates, an average can be created to predict how long the activity should take. |
| Total float | This is the total time an activity can be delayed without delaying project completion. |
| Work package | The smallest item in the work breakdown structure. |

| Project Cost Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Actual cost (AC) | The actual amount of monies the project has spent to date. |
| Analogous estimating | An approach that relies on historical information to predict the cost of the current project. It is also known as top-down estimating and is the least reliable of all the cost-estimating approaches. |
| Bottom-up estimating | An estimating approach that starts from zero, accounts for each component of the WBS, and arrives at a sum for the project. It is completed with the project team and can be one of the most time-consuming and most reliable methods to predict project costs. |
| Budget estimate | This estimate is also somewhat broad and is used early in the planning processes and also in top-down estimates. The range of variance for the estimate can be from –10 percent to +25 percent. |
| Commercial database | A cost-estimating approach that uses a database, typically software-driven, to create the cost estimate for a project. |
| Contingency reserve | A contingency allowance to account for overruns in costs. Contingency allowances are used at the project manager's discretion and with management's approval to counteract cost overruns for scheduled activities and risk events. |

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| Cost aggregation | Costs are parallel to each WBS work package. The costs of each work package are aggregated to their corresponding control accounts. Each control account then is aggregated to the sum of the project costs. |
| Cost baseline | A time-lapse exposure of when the project monies are to be spent in relation to cumulative values of the work completed in the project. |
| Cost budgeting | The cost aggregation achieved by assigning specific dollar amounts for each of the scheduled activities or, more likely, for each of the work packages in the WBS. Cost budgeting applies the cost estimates over time. |
| Cost change control system | A system that examines any changes associated with scope changes, the cost of materials, and the cost of any other resources, and the associated impact on the overall project cost. |
| Cost management plan | The cost management plan dictates how cost variances will be managed. |
| Cost of poor quality | The monies spent to recover from not adhering to the expected level of quality. Examples may include rework, defect repair, loss of life or limb because safety precautions were not taken, loss of sales, and loss of customers. This is also known as the cost of nonconformance to quality. |
| Cost of quality | The monies spent to attain the expected level of quality within a project. Examples include training, testing, and safety precautions. |
| Cost performance index (CPI) | Measures the project based on its financial performance. The formula is CPI = EV/AC. |

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| Cost variance (CV) | The difference of the earned value amount and the cumulative actual costs of the project. The formula is CV = EV – AC. |
| Definitive estimate | This estimate type is one of the most accurate. It's used late in the planning processes and is associated with bottom-up estimating. You need the WBS in order to create the definitive estimate. The range of variance for the estimate can be from –5 percent to +10 percent. |
| Direct costs | Costs are attributed directly to the project work and cannot be shared among projects (for example, airfare, hotels, long-distance phone charges, and so on). |
| Earned value (EV) | Earned value is the physical work completed to date and the authorized budget for that work. It is the percentage of the BAC that represents the actual work completed in the project. |
| Estimate at completion (EAC) | These forecasting formulas predict the likely completed costs of the project based on current scenarios within the project. |
| Estimate to complete (ETC) | An earned value management formula that predicts how much funding the project will require to be completed. Three variations of this formula are based on conditions the project may be experiencing. |
| Fixed costs | Costs that remain constant throughout the life of the project (the cost of a piece of rented equipment for the project, the cost of a consultant brought on to the project, and so on). |
| Funding limit reconciliation | An organization's approach to managing cash flow against the project deliverables based on a schedule, milestone accomplishment, or data constraints. |

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| Indirect costs | Costs that are representative of more than one project (for example, utilities for the performing organization, access to a training room, project management software license, and so on). |
| Known unknown | An event that will likely happen within the project, but when it will happen and to what degree is unknown. These events, such as delays, are usually risk-related. |
| Learning curve | An approach that assumes the cost per unit decreases the more units workers complete, because workers learn as they complete the required work. |
| Oligopoly | A market condition where the market is so tight that the actions of one vendor affect the actions of all the others. |
| Opportunity cost | The total cost of the opportunity that is refused to realize an opposing opportunity. |
| Parametric estimating | An approach using a parametric model to extrapolate what costs will be needed for a project (for example, cost per hour and cost per unit). It can include variables and points based on conditions. |
| Planned value (PV) | Planned value is the work scheduled and the budget authorized to accomplish that work. It is the percentage of the BAC that reflects where the project should be at this point in time. |
| Project variance | The final variance, which is discovered only at the project's completion. The formula is VAR = BAC – AC. |

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| Regression analysis | This is a statistical approach to predicting what future values may be, based on historical values. Regression analysis creates quantitative predictions based on variables within one value to predict variables in another. This form of estimating relies solely on pure statistical math to reveal relationships between variables and to predict future values. |
| Reserve analysis | Cost reserves are for unknown unknowns within a project. The management reserve is not part of the project cost baseline, but is included as part of the project budget. |
| Rough order of magnitude | This rough estimate is used during the initiating processes and in top-down estimates. The range of variance for the estimate can be from –25 percent to +75 percent. |
| Schedule performance index (SPI) | Measures the project based on its schedule performance. The formula is SPI = EV/PV. |
| Schedule variance (SV) | The difference between the earned value and the planned value. The formulas is SV = EV – PV. |
| Single source | Many vendors can provide what your project needs to purchase, but you prefer to work with a specific vendor. |
| Sole source | Only one vendor can provide what your project needs to purchase. Examples include a specific consultant, specialized service, or unique type of material. |
| Sunk costs | Monies that have already been invested in a project. |

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| To-Complete Performance Index | A formula to forecast the likelihood of a project to achieve its goals based on what's happening in the project right now. There are two different flavors for the TCPI, depending on what you want to accomplish. If you want to see if your project can meet the budget at completion, you'll use this formula: TCPI = (BAC – EV)/(BAC – AC). If you want to see if your project can meet the newly created estimate at completion, you'll use this version of the formula: TCPI = (BAC – EV)/(EAC – AC). |
| Variable costs | Costs that change based on the conditions applied in the project (the number of meeting participants, the supply of and demand for materials, and so on). |
| Variance | The difference between what was expected and what was experienced. |
| Variance at completion (VAC) | A forecasting formula that predicts how much of a variance the project will likely have based on current conditions within the project. The formula is VAC = BAC – EAC. |

| Project Quality Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Activity network diagram | These diagrams, such as the project network diagram, show the flow of the project work. |
| Affinity diagram | This diagram breaks down ideas, solutions, causes, and project components and groups them together with other similar ideas and components. |
| Benchmarking | Comparing any two similar entities to measure their performance. |
| Cause-and-effect diagrams | Diagrams that show the relationship between variables within a process and how those relationships may contribute to inadequate quality. The diagrams can help organize both the process and team opinions, as well as generate discussion on finding a solution to ensure quality. |
| Checklist | A simple approach to ensure that work is completed according to the quality policy. |
| Control chart | A quality control chart that maps the performance of project work over time. |
| Control quality | An inspection-driven process that measures work results to confirm that the project is meeting the relevant quality standards. |
| Cost of conformance | This is the cost associated with the monies spent to attain the expected level of quality. It is also known as the cost of quality. |
| Cost of nonconformance to quality | The cost associated with not satisfying quality expectations. This is also known as the cost of poor quality. |
| Cost-benefit analysis | A process to study the trade-offs between costs and the benefits realized from those costs. |

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| Design of experiments | An approach that relies on statistical scenarios to determine what variables within a project will result in the best outcome. |
| External QA | Assurance provided to the external customers of the project. |
| Flowchart | A diagram illustrating how components within a system are related. Flowcharts show the relation between components, as well as help the project team determine where quality issues may be present and, once done, plan accordingly. |
| Internal QA | Assurance provided to management and the project team. |
| ISO | The abbreviation for the International Organization for Standardization. ISO is Greek for "equal," while "International Organization for Standardization" in a different language would be abbreviated differently. The organization elected to use "ISO" for all languages. |
| Matrix diagram | A data analysis table that shows the strength between variables and relationships in the matrix. |
| Pareto diagram | A histogram that illustrates and ranks categories of failure within a project. |
| Quality | According to ASQ, the degree to which a set of inherent characteristics fulfills requirements. |
| Quality assurance | A management process that defines the quality system or quality policy that a project must adhere to. QA aims to plan quality into the project rather than to inspect quality into a deliverable. |
| Quality management plan | This plan defines how the project team will implement and fulfill the quality policy of the performing organization. |
| Quality metrics | The operational definitions that specify the measurements within a project and the expected targets for quality and performance. |

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| Quality planning | The process of first determining which quality standards are relevant to your project and then finding out the best methods of adhering to those quality standards. |
| Rule of Seven | A component of a control chart that illustrates the results of seven measurements on one side of the mean, which is considered “out of control” in the project. |
| Run chart | A quality control tool that shows the results of inspection in the order in which they’ve occurred. The goal of a run chart is first to demonstrate the results of a process over time and then to use trend analysis to predict when certain trends may reemerge. |
| Scatter diagram | A quality control tool that tracks the relationship between two variables over time. The two variables are considered related the closer they track against a diagonal line. |
| Seven basic quality tools | These seven tools are used in quality planning and in quality control: cause-and-effect diagrams, flowcharts, check sheets, Pareto diagrams, histograms, control charts, and scatter diagrams. |
| Statistical sampling | A process of choosing a percentage of results at random. For example, a project creating a medical device may have 20 percent of all units randomly selected to check for quality. |
| System or process flowcharts | Flowcharts that illustrate the flow of a process through a system, such as a project change request through the change control system, or work authorization through a quality control process. |
| Tree diagram | Tree diagrams show the hierarchies and decomposition of a solution, an organization, or a project team. The WBS and an org chart are examples of tree diagrams. |
| Trend analysis | The science of using past results to predict future performance. |

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| Work performance information | The results of the project work as needed. This includes technical performance measures, project status, information on what the project has created to date, corrective actions, and performance reports. |

| Project Resources Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Adjourning | Once the project is done, either the team moves onto other assignments as a unit, or the project team is disbanded and individual team members go on to other work. |
| Authority power | Project management team members may have authority over other project team members, may have the ability to make decisions, and perhaps even sign approvals for project work and purchases. |
| Coercive power | The project manager has the authority to discipline the project team members. This is also known as penalty power. |
| Collaborate/Problem solving | This approach confronts the problem head-on and is the preferred method of conflict resolution. Multiple viewpoints and perspectives contribute to the solution. |
| Collective bargaining agreement constraints | Contracts and agreements with unions or other employee groups may serve as constraints on the project. |
| Competency | This attribute defines what talents, skills, and capabilities are needed to complete the project work. |
| Compromising | This approach requires that both parties give up something. |
| Vroom's Expectancy Theory | This theory states that people will behave based on what they expect as a result of their behavior. In other words, people will work in relation to the expected reward. |
| Expert power | The project manager's authority comes both from experience with the technology the project |

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| | focuses on and from expertise in managing projects. |
| Forcing power | The person with the power makes the decision. |
| Formal power | The project manager has been assigned the role of project manager by senior management and is in charge of the project. |
| Forming | The project team meets and learns about their roles and responsibilities on the project. Little interaction among the project team happens in this stage as the team is learning about the project and project manager. |
| Herzberg's Theory of Motivation | Frederick Herzberg's theory of the motivating agents and hygiene agents that affect a person's willingness to excel in his career. |
| Hierarchical organizational chart | A chart showing the relationship between superior and subordinate employees, groups, disciplines, and even departments. |
| Issue log | A logbook of the issues the project team has identified and dates as to when the issues must be resolved by. The issue log may also include team members or stakeholders who are responsible for finding a solution to the identified issues. |
| Maslow's Hierarchy of Needs | Abraham Maslow's theory of the five needs all humans have and work toward. |
| McClelland's Theory of Needs | David McClelland developed this theory, which states our needs are acquired and developed by our experiences over time. All people are, according to this theory, driven by one of three needs: achievement, affiliation, or power. |
| McGregor's Theory of X and Y | Douglas McGregor's theory that states management views workers in the Y category as competent and self-led and workers in the X category as incompetent and needing to be micromanaged. |
| Multicriteria Decision Analysis | A method to rate potential project team members based on criteria such as education, experience, skills, knowledge, and more. |

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| Norming | Project team members go about getting the project work, begin to rely on one another, and generally complete their project assignments. |
| Organization chart | Traditional chart that depicts how the organization is broken down by department and disciplines. This chart is sometimes called the organizational breakdown structure (OBS) and is arranged by departments, units, or teams. |
| Ouchi's Theory Z | William Ouchi's theory is based on the participative management style of the Japanese. This theory states that workers are motivated by a sense of commitment, opportunity, and advancement. |
| Performing | If a project team can reach the performing stage of team development, they trust one another, work well together, and issues and problems get resolved quickly and effectively. |
| Political interfaces | The hidden goals, personal agendas, and alliances among the project team members and the stakeholders. |
| RACI chart | A RACI chart is a matrix chart that only uses the activities of responsible, accountable, consult, and inform. |
| Referent power | The project team personally knows the project manager. Referent can also mean that the project manager refers to the person who assigned him the position. |
| Resource breakdown structure (RBS) | This hierarchical chart can decompose the project by the type of resources used throughout it. |
| Responsibility assignment matrix (RAM) | A RAM chart shows the correlation between project team members and the work they've been assigned to complete. |
| Responsibility | A responsibility is the work that a role performs. |
| Resource management plan | This plan defines staff acquisition, the timetable for staff acquisition, the staff release plan, training needs for the project team, any organizational compliance issues, rewards and |

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| | recognitions, and safety concerns for the project team doing the project work. |
| Reward | The project manager has the authority to reward the project team. |
| Role | This denotes what a person is specifically responsible for in a project. Roles are usually tied to job titles, such as network engineer, mechanical engineer, and electrician. |
| Smoothing | This approach smooths out the conflict by minimizing the perceived size of the problem. It is a temporary solution, but can calm team relations and boisterous discussions. |
| Storming | The project team struggles for project positions, leadership, and project direction. The project team can become hostile toward the project leader, challenge ideas, and try to establish and claim positions about the project work. The amount of debate and fury can vary depending on if the project team is willing to work together, the nature of the project, and the control of the project manager. |
| Technical interfaces | The project team identifies the disciplines and specialties that the project will require to complete the project scope statement. The technical interfaces are the resources that will be doing the project work. |
| Withdrawal | This conflict resolution method sees one side of the argument walking away from the problem, usually in disgust. |

| Project Communications Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Acknowledgment | The receiver signals that the message has been received. An acknowledgment shows receipt of the message, but not necessarily agreement with the message. |
| Active listening | The receiver confirms that the message is being received through feedback, questions, prompts for clarity, and other signs of confirmation. |
| Choice of media | The best modality to use when communicating that is relevant to the information being communicated. |
| Communication assumptions | Anything that the project management team believes to be true but hasn't proven to be true. For example, the project management team may assume that all of the project team can be reached via cell phone, but parts of the world, as of this writing, don't have a cell signal. |
| Communication barrier | Anything that prohibits communication from occurring. |
| Communication channels formula | N(N – 1)/2, where N represents the number of identified stakeholders. This formula reveals the total number of communication channels within a project. |
| Communication constraints | Anything that limits the project management team's options. When it comes to communication constraints, geographical locales, incompatible communications software, and even limited communications technology can constrain the project team. |

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| Communications management plan | A project management subsidiary plan that defines the stakeholders who need specific information, the person who will supply the information, the schedule for the information to be supplied, and the approved modality to provide the information. |
| Decoder | The device that decodes a message as it is being received. |
| Effective listening | The receiver is involved in the listening experience by paying attention to visual cues from the speaker and paralingual characteristics, and by asking relevant questions. |
| Encoder | The device that encodes the message being sent. |
| Feedback | The sender confirms that the receiver understands the message by directly asking for a response, questions for clarification, or other confirmation. |
| Influence/impact grid | Stakeholders are mapped on a grid based on their influence over the project in relation to their influence over the project execution. |
| Information presentation tools | A software package that allows the project management team to present the project's health through graphics, spreadsheets, and text. (Think of Microsoft Project.) |
| Information retrieval system | A system to quickly and effectively store, archive, and access project information. |
| Interactive communication | This is the most common and most effective approach to communication. It's where two or more people exchange information. Consider status meetings, ad-hoc meetings, phone calls, and videoconferences. |
| Lessons learned | This is documentation of what did and did not work in the project implementation. Lessons learned documentation is created throughout the project by the entire project team. When lessons learned sessions are completed, they're available to be used and applied by the entire organization. They are now part of the organizational process assets. |

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| Medium | The device or technology that transports a message. |
| Noise | Anything that interferes with or disrupts a message. |
| Nonverbal | Facial expressions, hand gestures, and body language are nonverbal cues that contribute to a message. Approximately 55 percent of communication is nonverbal. |
| Paralingual | The pitch, tone, and inflections in the sender's voice affecting the message being sent. |
| Performance report | A report that depicts how well a project is performing. Often, the performance report is based on earned value management and may include cost or schedule variance reports. |
| Project presentations | Presentations are useful in providing information to customers, management, the project team, and other stakeholders. |
| Project records | All the business of the project communications is also part of the organizational process assets. This includes e-mails, memos, letters, and faxes. |
| Project reports | Reports are formal communications on project activities, their status, and conditions. |
| Pull communication | This approach pulls the information from a central repository, like a database of information. Pull communications are good for large groups of stakeholders who want to access project information at their discretion. Consider a project web site where stakeholders can periodically drop by for a quick update on the project status. |
| Push communication | This approach pushes the information from the sender to the receiver without any real acknowledgment that the information was really received or understood. Consider letters, faxes, voicemail messages, e-mails, and other communications modalities that the sender packages and sends to receivers through some intermediary network. |
| Receiver | The person who receives the message. |

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| Sender | The person who is sending the message. |
| Sender–receiver models | Feedback loops and barriers to communications. |
| Stakeholder notifications | Notices to the stakeholders about resolved issues, approved changes, and the overall health of the project. |
| Status review meeting | A regularly scheduled meeting to discuss the status of the project and its progress toward completing the project scope statement. |
| Time reporting system | A system to record the actual time to complete project activities. |

| Project Risk Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Acceptance | A risk response appropriate for both positive and negative risks, but often used for smaller risks within a project. |
| Ambiguity risks | Risks that have an uncertain, unclear nature, such as new laws or regulations, the marketplace conditions, and other risks that are nearly impossible to predict. |
| Avoidance | A risk response to avoid the risk. |
| Brainstorming | The most common approach to risk identification; usually completed by a project team with subject matter experts to identify the risks within the project. |
| Business risks | These risks may have negative or positive outcomes. Examples include using a less experienced worker to complete a task, allowing phases or activities to overlap, or forgoing the expense of formal training for on-the-job education. |
| Cardinal scales | A ranking approach to identify the probability and impact by using a numerical value, from .01 (very low) to 1.0 (certain). |
| Checklists | A quick and cost-effective risk identification approach. |
| Data precision | The consideration of the risk ranking scores that takes into account any bias, the accuracy of the data submitted, and the reliability of the nature of the data submitted. |
| Decision tree | A method to determine which of two or more decisions is the best one. The model examines the costs and benefits of each decision's outcome and weighs the probability of success for each of the decisions. |

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| Delphi Technique | An anonymous method of querying experts about foreseeable risks within a project, phase, or component of a project. The results of the survey are analyzed by a third party, organized, and then circulated to the experts. There can be several rounds of anonymous discussion with the Delphi Technique, without fear of backlash or offending other participants in the process. The goal is to gain consensus on project risks within the project. |
| Enhancing | A risk response that attempts to enhance the conditions to ensure that a positive risk event will likely happen. |
| Escalating | A risk response that is appropriate for both positive and negative risk events that may outside of the project manager's authority to act upon. |
| Expected monetary value (EMV) | The monetary value of a risk exposure based on the risk's probability and impact in the risk matrix. This approach is typically used in quantitative risk analysis because it quantifies the risk exposure. |
| Exploit | A risk response that takes advantage of the positive risks within a project. |
| External risks | These risks are outside of the project, but directly affect it—for example, legal issues, labor issues, a shift in project priorities, or weather. "Force majeure" risks call for disaster recovery rather than project management. These are risks caused by earthquakes, tornadoes, floods, civil unrest, and other disasters. |
| Flowcharts | System or process flowcharts show the relationship between components and how the overall process works. These are useful for identifying risks between system components. |
| Influence diagrams | An influence diagram charts out a decision problem. It identifies all of the elements, variables, decisions, and objectives and also how each factor may influence another. |
| Ishikawa diagrams | These cause-and-effect diagrams are also called fishbone diagrams and are used to find the root cause of factors that are causing risks within the project. |
| Low-priority risk watch list | Low-priority risks are identified and assigned to a watch list for periodic monitoring. |
| Mitigation | A risk response effort to reduce the probability and/or impact of an identified risk in the project. |

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| Monte Carlo technique | A simulation technique that got its name from the casinos of Monte Carlo, Monaco. The simulation is completed using a computer software program that can simulate a project, using values for all possible variables, to predict the most likely model. |
| Ordinal scales | A ranking approach that identifies and ranks the risks from very high to very unlikely or to some other value. |
| Organizational risks | The performing organization can contribute to the project's risks through unreasonable cost, time, and scope expectations; poor project prioritization; inadequate funding or the disruption of funding; and competition with other projects for internal resources. |
| PESTLE | A prompt list used for risk identification. PESTLE examines risks in the Political, Economic, Social, Technological, Legal, and Environmental domains. |
| Probability and impact matrix | A matrix that ranks the probability of a risk event occurring and its impact on the project if the event does happen; used in qualitative and quantitative risk analyses. |
| Project management risks | These risks deal with faults in the management of the project: the unsuccessful allocation of time, resources, and scheduling; unacceptable work results; and poor project management. |
| Pure risks | These risks have only a negative outcome. Examples include loss of life or limb, fire, theft, natural disasters, and the like. |
| Qualitative risk analysis | This approach "qualifies" the risks that have been identified in the project. Specifically, qualitative risk analysis examines and prioritizes risks based on their probability of occurring and their impact on the project should they occur. |
| Quantitative risk analysis | This approach attempts to numerically assess the probability and impact of the identified risks. It also creates an overall risk score for the project. This method is more in-depth than qualitative risk analysis and relies on several different tools to accomplish its goal. |
| RAG rating | An ordinal scale that uses red, amber, and green (RAG) to capture the probability, impact, and risk score. |
| Residual risks | Risks that are expected to remain after a risk response. |

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| Risk | A project risk is an uncertain event or condition that can have a positive or negative impact on the project. |
| Risk identification | The systematic process of combing through the project, the project plan, the work breakdown structure, and all supporting documentation to identify as many risks that may affect the project as possible. |
| Risk management plan | A project management subsidiary plan that defines how risks will be identified, analyzed, responded to, and monitored within the project. The plan also defines the iterative risk management process that the project is expected to adhere to. |
| Risk management planning | The agreed-upon approach to the management of the project risk processes. |
| Risk owners | The individuals or entities that are responsible for monitoring and responding to an identified risk within the project. |
| Risk register | The risk register is a project plan component that contains all of the information related to the risk management activities. It's updated as risk management activities are conducted to reflect the status, progress, and nature of the project risks. |
| Risk report | The risk report explains the overall project risks and provides summaries about the individual project risks. |
| Risk response audit | An audit to test the validity of the established risk responses. |
| Risk responsibilities | The level of ownership an individual or entity has over a project risk. |
| Risk score | The calculated score based on each risk's probability and impact. The approach can be used in both qualitative and quantitative risk analysis. |
| Root cause identification | Root cause identification aims to find out why a risk event may be occurring, the causal factors for the risk events, and then, eventually, how the events can be mitigated or eliminated. |
| Secondary risks | New risks that are created as a result of a risk response. |
| Sensitivity analysis | A quantitative risk analysis tool that examines each risk to determine which one has the largest impact on the project's success. |
| Sharing | A risk response that shares the advantages of a positive risk within a project. |

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| SWOT analysis | SWOT analysis is the process of examining the project from the perspective of each characteristic: strengths, weaknesses, opportunities, and threats. |
| TECOP | A prompt list used in risk identification to examine the Technical, Environmental, Commercial, Operational, and Political factors of the project. |
| Technical, quality, or performance risks | Technical risks are associated with new, unproven, or complex technologies being used on the project. Changes to the technology during the project implementation can also be a risk. Quality risks are the levels set for expectations of impractical quality and performance. |
| Transference | A risk response that transfers the ownership of the risk to another party. Insurance, licensed contractors, or other project teams are good examples of transference. A fee and contractual relationships are typically involved with the transference of a risk. |
| Variability risks | A type of risk based on the variations that may occur in the project, such as production, number of quality errors, or even the weather. |
| VUCA | A prompt list used in risk identification that examines the Volatility, Uncertainty, Complexity, and Ambiguity of risk factors within the project. |

| Project Procurement Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Alternative dispute resolution | When there is an issue or claim that must be settled before the contract can be closed, the parties involved in the issue or claim will try to reach a settlement through mediation or arbitration. |
| Bid | From seller to buyer. Price is the determining factor in the decision-making process. |
| Bidder conference | A meeting of all the project's potential vendors to clarify the contract statement of work and the details of the contracted work. |
| Claims | These are disagreements between the buyer and the seller, usually centering on a change, who did the change, and even whether a change has occurred. Claims are also called disputes and appeals, and are monitored and controlled through the project in accordance with the contract terms. |
| Contract | A contract is a formal agreement between the buyer and the seller. Contracts can be oral or written—though written is preferred. |

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| Contract change control system | This defines the procedures for how the contract may be changed. The process for changing the contract includes the forms; documented communications; tracking; conditions within the project, business, or marketplace that justify the needed change; dispute resolution procedures; and the procedures for getting the changes approved within the performing organization. |
| Contract statement of work (SOW also CSOW) | This document requires that the seller fully describe the work to be completed and/or the product to be supplied. The SOW becomes part of the contract between the buyer and the seller. |
| Cost plus award fee contract | A contract that pays the vendor all costs for the project, but also includes a buyer-determined award fee for the project work. |
| Cost plus fixed fee contract | A contract that requires the buyer to pay for the cost of the goods and services procured plus a fixed fee for the contracted work. The buyer assumes the risk of a cost overrun. |
| Cost plus incentive fee | A contract type that requires the buyer to pay a cost for the procured work, plus an incentive fee, or a bonus, for the work if terms and conditions are met. |
| Cost plus percentage of costs | A contract that requires the buyer to pay for the costs of the goods and services procured plus a percentage of the costs. The buyer assumes all of the risks for cost overruns. |
| Direct costs | These are costs incurred by the project in order for the project to exist. Examples include the equipment needed to complete the project work, salaries of the project team, and other expenses tied directly to the project's existence. |

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| Fixed-price contracts | Also known as firm fixed-price and lump-sum contracts, these are agreements that define a total price for the product the seller is to provide. |
| Fixed-price incentive fee | A fixed-price contract with opportunities for bonuses for meeting goals on costs, schedule, and other objectives. These contracts usually have a price ceiling for costs and associated bonuses. |
| Fixed-price with economic price adjustments | A fixed-price contract with a special allowance for price increases based on economic reasons such as inflation or the cost of raw materials. |
| Force majeure | An “act of God” that may have a negative impact on the project. Examples include fire, hurricanes, tornadoes, and earthquakes. |
| Independent estimates | These estimates are often referred to as “should cost” estimates. They are created by the performing organization or outside experts to predict what the cost of the procured product should be. |
| Indirect costs | These are costs attributed to the cost of doing business. Examples include utilities, office space, and other overhead costs. |
| Invitation for Bid (IFB) | From buyer to seller. Requests the seller to provide a price for the procured product or service. |
| Letter contract | A letter contract allows the vendor to begin working on the project immediately. It is often used as a stopgap solution. |
| Letter of intent | A letter of intent is not a contract, but a letter stating that the buyer is intending to create a contractual relationship with the seller. |

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| Make-or-buy decision | A process in which the project management team determines the cost-effectiveness, benefits, and feasibility of making a product or buying it from a vendor. |
| Privity | The contractual relationship between the buyer and the seller is often considered confidential and secret. |
| Procurement management plan | A project management subsidiary plan that documents the decisions made in the procurement planning processes. |
| Procurement planning | A process to identify which parts of the project warrant procurement from a vendor by the buyer. |
| Proposal | A document the seller provides to the buyer. The proposal includes more than just a fee for the proposed work. It also includes information on the vendor's skills, the vendor's reputation, and ideas on how the vendor can complete the contracted work for the buyer. |
| Purchase order (PO) | A purchase order is a form of unilateral contract that the buyer provides to the vendor showing that the purchase has been approved by the buyer's organization. |
| Quotation | From seller to buyer. Price is the determining factor in the decision-making process. |
| Request for Proposal (RFP) | From buyer to seller. Requests the seller to provide a proposal to complete the procured work or to provide the procured product. |
| Request for Quote (RFQ) | From buyer to seller. Requests the seller to provide a price for the procured product or service. |

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| Risk-related contractual agreements | When the project management team decides to use transference to respond to a risk, a risk-related contractual agreement is created between the buyer and the seller. |
| Screening system | A tool that filters or screens out vendors that don't qualify for the contract. |
| Seller rating systems | These are used by organizations to rate prior experience with each vendor that they have worked with in the past. The seller rating system can track performance, quality ratings, delivery, and even contract compliance. |
| Terms of Reference | Defines the obligations for the seller, what the seller will provide, and all of the particulars of the contracted work. Terms of reference is similar to the statement of work. |
| Time and materials contract | A contract type in which the buyer pays for the time and materials for the procured work. This is a simple contract, usually for smaller procurement conditions. These contract types require a not-to-exceed clause, or the buyer assumes the risk for cost overruns. |
| Weighting system | This takes out the personal preferences of the decision maker in the organization to ensure that the best seller is awarded the contract. Weights are assigned to the values of the proposals, and each proposal is scored. |

| Project Stakeholder Management Terms | |
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| | *Directions: Hide this side of the flashcards or fold page in half. Read the term, recite the definition, and then look at this side of the flashcards to check your answer.* |
| Interactive communications | This type of communication means that information is happening among stakeholders, like in a forum. Examples of interactive communications are meetings, videoconferences, phone calls, and ad-hoc conversations. Interactive communications means that the participants are actively communicating with one another. |
| Brain writing | A data gathering technique that's similar to brainstorming, but provides brainstorming meeting participants with the questions and topics for brainstorming before the stakeholder identification meeting. |
| Key stakeholder | Stakeholders—such as management, the project manager, program manager, or customers—that have the authority to make decisions in the project. |
| Leading stakeholder status | Part of stakeholder analysis classification. A leading stakeholder is aware of your project, they want your project to be successful, and the stakeholder is working to make certain the project is a success. |
| Negative stakeholder | A stakeholder who does not want the project to exist and is opposed to the project. |
| Neutral stakeholder | A stakeholder who has neither a positive nor negative attitude about the project's existence. |
| Neutral stakeholder status | Part of stakeholder analysis classification. A neutral stakeholder is aware of your project and is not concerned if the project succeeds or fails. |
| Positive stakeholder | A stakeholder who sees the benefits of the project and is in favor of the change the project is to bring about. |

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| Profile analysis meeting | This is an analysis meeting to examine and document the roles in the project. The role's interests, concerns, influence, project knowledge, and attitude are documented. |
| Pull communications | This type of communication pulls information from a central repository. Pull communications allow stakeholders to retrieve information from a central source as needed. |
| Push communications | This type of communication happens when the sender pushes the same message to multiple people. Good examples of push communications are broadcast text messages, faxes, press releases, and group e-mails. |
| Reporting system | A reporting system is a software program to store and analyze project data for reporting. A common reporting system will take project data, allow the project manager to pass the data through earned value management, for example, and then create forecasting reports about the project costs and schedule. |
| Resistant stakeholder status | Part of stakeholder analysis classification. A resistant stakeholder is aware of your project, but they do not support the changes your project will create. |
| Stakeholder | Anyone who is affected by the existence of the project or who can affect the project's existence. Stakeholders can enter and exit the project as conditions change within the project. |
| Stakeholder analysis | An activity that ranks stakeholders based on their influence, interests, and expectations of the project. Stakeholders are identified and ranked, and then their needs and expectations are documented and addressed. |
| Stakeholder classification models | These are charts and diagrams that help the project manager determine the influence of stakeholders in relation to their interest in the project. Common classification models include the power/interest grid, the power/influence grid, the influence/impact grid, and the salience model. |

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| Stakeholder engagement | The project manager works to keep the project stakeholders interested, involved, and supportive of the project. Through communication, management skills, and interpersonal skills, the project manager can work to keep the project stakeholders engaged and interested in the project. |
| Stakeholder identification | A project initiation activity to identify, document, and classify the project stakeholders as early as possible in the project. |
| Stakeholder management | The project management knowledge area that focuses on the management and engagement of the project stakeholders. There are four processes in this knowledge area: identify stakeholders, plan stakeholder management, manage stakeholder engagement, and Monitor Stakeholder Engagement. |
| Stakeholder engagement plan | The stakeholder engagement plan documents a strategy for managing the engagement of project stakeholders. The stakeholder engagement plan establishes stakeholder engagement and defines how the project manager can increase and improve stakeholder engagement. |
| Stakeholder engagement planning | The project manager works with the project team and subject matter experts to create a strategy to manage the project stakeholders. |
| Stakeholder register | A documentation of each stakeholder's contact information, position, concerns, interests, and attitude toward the project. The project manager updates the register as new stakeholders are identified and when stakeholders leave the project. |
| Supportive stakeholder status | This is part of stakeholder analysis classification. A supportive stakeholder is aware of your project and is supportive and hopeful that the project will be successful. |
| Unaware stakeholder status | Part of stakeholder analysis classification. An unaware status means the stakeholder doesn't know about the project and the effect the project may create on the stakeholder. |