

Foresight Competency Model Table of Contents

About the Model.....	3
Tier One: Personal Effectiveness Competencies.....	4
Interpersonal Skills.....	4
Integrity.....	5
Initiative.....	5
Adaptability & Flexibility.....	5
Willingness to Learn.....	5
Communicating.....	5
Tier Two: Academic Competencies.....	7
Specialized Knowledge.....	7
Broad Knowledge.....	8
Intellectual Skills.....	8
Applied Learning.....	8
Civic Learning.....	9
Tier Three: Workplace Competencies.....	9
Creative Thinking.....	9
Networking.....	10
Planning & Organizing.....	11
Problem Solving & Decision Making.....	11
Technology Applications.....	12
Systems Thinking.....	12
Tier Four: Foresight Technical Competencies.....	2
Framing.....	12
Scanning.....	13
Futuring.....	13
Visioning.....	13
Designing.....	13
Adapting.....	14
Tier Five: Foresight Sector Competencies.....	14
Consulting.....	14
Organizational.....	15
Academic.....	16
Resources Reviewed.....	16

ABOUT THE MODEL

A phased approach to promoting the professionalization of foresight. Central to the model is the development of a competency model, which is to be followed by work on standards and then a professional development pathway. This Foresight Competency Model provides a shared view of what professional futurists consider to be central to carrying out foresight work. The competency model provides a foundation upon which to guide professionalization efforts for foresight.

The task force chose to follow the approach developed by the US Department of Labor, Employment and Training Administration, as it was designed to provide clear guidance and user-friendly templates. This approach depicted competencies in layered tiers using a pyramidal shape. The draft submission of the model used this pyramid graphic, but this updated final version uses a graphical approach more in synch with APF design and branding. The circles in the graphic represent competency areas, that is, the applied skills, knowledge, and abilities that are essential to successful foresight performance.

Tiers 1 through 3 contain Foundation Competencies which form the foundation needed to be ready to enter the workplace.

Tier 1 – Personal Effectiveness Competencies are shown as hovering below the pyramid because these competencies are essential for all life roles. Often referred to as "soft skills," personal effectiveness competencies are generally learned in the home or community and reinforced and honed at school and in the workplace. They represent personal attributes that may present some challenges to teach or assess.

Competency: A cluster of related knowledge, skills, and abilities that affects a major part of a job (a role or responsibility) that correlates with performance on the job, that can be measured against well-accepted standards and that can be improved via training and development.

Tier 2 – Academic Competencies are critical competencies primarily learned in a school setting. They include cognitive functions and thinking styles. Academic competencies are typically applicable to all industries and occupations.

Tier 3 – Workplace Competencies represent motives and traits, as well as interpersonal and self-management styles. They generally are applicable to a large number of occupations and industries.

Tiers 4 and 5 contain Industry Competencies which are specific to an industry or industry sector.

Tier 4 – Foresight Technical Competencies present the knowledge and skills that are common to all foresight activities. These technical competencies build on, but are more specific than, competencies represented on lower tiers.

Tier 5 – Foresight Sector Competencies present broad sectors of foresight activities. Related

* <http://www.careeronestop.org/CompetencyModel/>

competencies may be developed by interest groups or communities of practice.

Tiers 6 through 9, represent the specialization that occurs within specific **occupations** within an industry. These are yet to be developed in relationship to the work of foresight professionals. Information on occupational competencies among various workforce domains are available through O*NET OnLine (<http://online.onetcenter.org>).

At the moment, and for the task being completed now, the model is concerned with the roles and competencies needed by futurists, generally, now and in the short-term future. For the mid- to long-term future, there will be shifts in how important specific tasks are versus other ones etc., and what we do and offer but this will be covered in another work phase.

Tier One– Personal Effectiveness Competencies

Inter-personal Skills	Integrity	Initiative	Adaptability & Flexibility	Willingness to Learn	Communicating
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1. Interpersonal Skills Displaying skills to work with others from diverse backgrounds.

Demonstrate Insight into Behavior

- Interpret accurately the verbal and nonverbal behavior of others
- Show insight into the actions and motives of others
- Recognize when relationships with others are strained
- Assess the abilities and personalities of others

Maintain Open Communication

- Maintain open lines of communication with others
- Encourage others to share problems, successes, and new ideas
- Establish a high degree of trust and credibility with others
- Demonstrate honesty and integrity

Work with Diverse People

- Demonstrate respect for the opinions, perspectives, customs, and individual differences of others
- Value diversity of people and ideas
- Keep an open mind when dealing with a wide range of people
- Develop effective relationships with diverse personalities
- Take action to learn about the climate, orientation, needs, and values of other groups, organizations, or cultures

2. Integrity: Displaying strong business and work ethics.

Behaving Ethically

- Abide by a professional code of ethics and behavior at all times.
- Encourage others to behave ethically.

- Perform work-related duties according to laws, regulations, contract provisions, and company policies.
- Understand that behaving ethically goes beyond what the law requires.
- Use company time and property responsibly.

Acting Fairly

- Treat others with honesty, fairness, and respect.
- Make decisions that are objective and reflect the just treatment of others.

Taking Responsibility

- Take responsibility for accomplishing work goals within accepted timeframes.
- Take responsibility for the actions of your department.

3. Initiative: Demonstrating a willingness to work.

Take Initiative

- Exhibit confidence in capabilities
- Demonstrate the expectation to succeed in future activities
- Seek opportunities to influence events and originate action

Set Challenging Goals

- Establish personally challenging but attainable work goals (short, medium, and long-term goals)
- Set definite time spans for the achievement of goals
- Articulate a vision for achieving goals

Work Independently

- Develop own ways of doing things
- Perform effectively with minimal direction, support, or approval
- Exert effort toward task mastery
- Bring issues to closure by pushing forward until a resolution is achieved

4. Adaptability & Flexibility: Displaying the capability to adapt to new, different, or changing requirements.

Employ Unique Analyses

- Generate innovative ideas in complex areas
- Integrate seemingly unrelated information to develop creative solutions
- Develop innovative methods of obtaining resources when insufficient resources are available

Entertain New Ideas

- Consider new ways of doing things
- Seek out the merits of new approaches to work
- Embrace new approaches when appropriate
- Discard approaches that are no longer working
- Be willing to change as the organization evolves

Deal with Ambiguity

- Show tolerance for ambiguous, unstructured situations
- Take effective action even without all the necessary facts in hand
- Change plans, goals, actions, or priorities to deal with predictable or unexpected events, pressures, situations and job demands

5. Willingness to Learn Displaying a willingness to learn and apply new knowledge and skills.

Demonstrate an Interest in Learning

- Be curious and attentive to identify business opportunities (the environment in which businesses operate is constantly changing)
- Anticipate changes in work demands
- Search for and participate in assignments or training that address changing demands
- Treat unexpected circumstances as opportunities to learn

Learning Strategies

- Set lifelong learning goals
- Identify when it is necessary to acquire new knowledge and skills
- Pursue opportunities to develop new knowledge, skills, and expertise

Identify Career Interests

- Take charge of personal career development by identifying interests, strengths, options, and new business opportunities

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6. Communicating Listening, observing, expressing and convincing so others can understand using a variety of methods

Listening

- Attend to, understand, interpret, and respond to messages received in a variety of ways
- Identify feelings and concerns communicated in various formats
- Consider others' viewpoints and alter opinion when it is appropriate to do so.
- Apply active interpersonal communication skills using reflection, restatement, questioning, and clarification.
- Ability to take on the perspective of others

Observing

- Notice nonverbal cues and respond appropriately.
- Ascertain relevant visual information and use appropriately.

Expressing

- Express relevant information appropriately to individuals or groups taking into account the audience and the nature of the information (e.g., technical or controversial).
- Convey information clearly, correctly, and succinctly.
- Use common conventions including proper grammar, tone, and pace.
- Effectively establish interpersonal contact with one or more individuals using eye contact, body language and nonverbal expression as appropriate to the person's culture.

Convincing

- Influence others in a variety of situations
- Persuasively present thoughts and ideas.
- Gain commitment and ensure support for proposed ideas.

Tier Two– Academic Competencies*

Specialized Knowledge	Broad Knowledge	Intellectual Skills	Applied Learning	Civic Learning
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1. <u>Specialized Knowledge</u>	Knowledge acquired in a specialized field of study
Domain Fluency	<ul style="list-style-type: none"> • Defines and explains the boundaries, divisions and practices of the field.
Terminological Fluency	<ul style="list-style-type: none"> • Defines and properly uses the principal terms in the field, both historical and contemporaneous.
Methodological Fluency	<ul style="list-style-type: none"> • Demonstrates fluency in the use of tools, technologies and methods in the field
Interpretative Skill	<ul style="list-style-type: none"> • Evaluates, clarifies and frames a complex question or challenge using perspectives and scholarship from the field.
Formative Project	<ul style="list-style-type: none"> • Constructs a project related to a familiar but complex problem in the field of study by assembling, arranging and reformulating ideas, concepts, designs or techniques.
Final Project	<ul style="list-style-type: none"> • Constructs a summative project, paper or practicalized performance that draws on current research, scholarship and/or techniques in the field.

2. <u>Broad Knowledge</u>	Knowledge acquired in general education fields
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* From Lumina Foundation [Degree Qualifications Profile](#)

Integrative Thinking

- Frames a complex scientific, social, technological, economic or aesthetic challenge or problem from the perspectives and literature of at least two academic fields
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Applied Skill

- Produces, independently or collaboratively, an investigative, creative or practical work that draws on specific theories, tools and methods from at least two academic fields

Integral Thinking

- Explains a problem in science, the arts, society, human services, economic life or technology from the perspective of at least two academic fields, explains how the methods of inquiry and research in those disciplines can be brought together and judges the likelihood that the combination of disciplinary perspectives and methods would contribute to the resolution of the challenge justifies the importance of the challenge in a social or global context.

3. Intellectual Skills Intellectual skills that cut across disciplinary boundaries.

Analytic Inquiry

- Differentiates and evaluates theories and approaches to complex standard and nonstandard problems within his or her major field.

Information Use

- Incorporates multiple information resources in different media or languages in projects, papers or performances, with appropriate citations; and evaluates the relative merits of competing resources with respect to clearly articulated standards.

Diverse Engagement

- Constructs a cultural, political or technological alternate vision of either the natural or human world through a written project, laboratory report, exhibit, performance or community service design; defines the distinct patterns in this alternative vision; and explains how these patterns differ from current realities. (Engaging diverse perspectives)

Quantitative Fluency

- Translates verbal problems into mathematical algorithms, constructs valid arguments in the accepted symbolic system of mathematical reasoning, and constructs accurate calculations, estimates, risk analyses or quantitative evaluations of public information through presentations, papers or projects.

Communication Fluency

- Constructs sustained, coherent argument or presentation on critical issues or processes in more than one language and in more than one medium for general and specific audiences and works through collaboration to address a social, personal or ethical dilemma.

4. Applied Learning Skills Skills that are transferred to nonacademic organizational settings.

Applied Project

- Presents a project, paper, performance or other appropriate task linking knowledge and skills from work, community or research activities with knowledge acquired in academic disciplines; explains how elements were combined to shape meaning or findings; and shows the relationship to relevant scholarship.

Action Inquiry

- Formulates a question on a topic that addresses more than one academic discipline or practical setting, locates appropriate evidence that addresses the question, evaluates the evidence logically from analysis.

Field-Based Problem Solving

- Completes a field-based assignment in the course of study that employs insights from others; evaluates a significant question in relation to concepts, methods or assumptions in at least one academic field; and explains the implications of learning outside the classroom.

5. Civic Learning Knowledge and commitment to action in the public sphere.

Issue Analysis

- Explains diverse perspectives on a contested issue and evaluates insights gained from different kinds of evidence reflecting scholarly and community perspectives.

Policy Analysis

- Develops and justifies a position on a public issue and relates this position to alternative views within the community or policy environment.

Program Analysis

- Collaborates in developing and implementing an approach to a civic issue, evaluates the process and, where applicable, weighs the results.

Tier Three- Workplace Competencies

Creative Thinking	Networking	Planning & Organizing	Problem Solving & Decision Making	Technology Applications	Systems Thinking
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1. Creative Thinking Generating innovative and creative solutions.

Generate Innovative Solutions

- Reframe problems in a different light to find fresh approaches
- Entertain wide-ranging possibilities others may miss
- Use information, knowledge, and beliefs to generate original, innovative solutions
- Take advantage of difficult or unusual situations to develop unique approaches and useful solutions
- Search for new ways of improving efficiency of existing processes

- Identify what is missing from current product stream
- Search for new ideas for product improvement
- Apply innovative new ideas that satisfy the needs of a clearly defined market
- Demonstrate new ways of thinking, not merely about what is, but of what might be
- Conduct brainstorming and other creativity sessions
- Exhibit capacity for imagination, creativity, and empathy

See the Big Picture

- Possess broad knowledge and perspective
- Piece together seemingly unrelated data to identify patterns and trends to see a bigger picture
- Think expansively by combining ideas in unique ways
- Make connections between disparate things to see what others may have missed
- Identify the pieces of a system as a whole and the consequences of actions on parts of the system

2. Networking: Establishing professional relationships and partnerships.

Building Relationships

- Seek opportunities to make contacts through organizational events, social events, external organizations and professional activities
- Identify partners/employees/consultants who complement your own strengths and weaknesses
- Exhibit trustworthy behavior to build successful professional relationships

Partnering

- Establish strong and lasting partnerships with professional contacts
- Seek ways of increasing professional opportunities with contacts
- Negotiate with partners to create opportunities that increase the competitive position of both parties
- Propose innovative deals or opportunities to customers, suppliers, and partners

Leveraging Contacts

- Leverage contacts to obtain information relevant to the health and continued growth of the organization, including feedback on organizational performance
- Access outside consultants who can provide market projections and advice

Collaboration

- Collaborate among partners to ensure buy-in and follow through on strategies
- Identify mutually beneficial goals and work cooperatively with partners to achieve them
- Collaborate in virtual teams via conference calls, web casts, and net meetings

3. Planning & Organizing Planning and prioritizing work to manage time effectively and accomplish assigned tasks.

Planning

- Approach work in a methodical manner
- Develop business plans to map out approaches to new ventures
- Schedule tasks so that work is completed on time
- Keep track of details to ensure work is performed accurately and completely

Prioritizing

- Prioritize various competing tasks
- Perform tasks quickly and efficiently according to their urgency
- Find new ways of organizing or planning work to accomplish work more efficiently

Allocating Resources

- Estimate resources needed for project completion
- Allocate time and resources effectively
- Keep all parties informed of progress and relevant changes to project timelines

Anticipating Obstacles

- Anticipate obstacles to project completion
- Develop contingency plans to address obstacles
- Take necessary corrective action when projects go off-track

4. Problem Solving & Decision Making: Applying critical-thinking skills to solve problems by generating, evaluating, and implementing solutions.

Identifying the Problem

- Anticipate concerns before they arise
- Recognize the existence of a problem
- Deal with problems and challenges in order of priority
- Identify the nature of the problem by analyzing its component parts
- Recall previously learned information that is relevant to the problem

Locating, Gathering, and Organizing Relevant Information

- Use all available reference systems to locate information relevant to the problem
- Collect and analyze data
- Examine information obtained to gain a better understanding of the problem
- Recognize important gaps in existing information
- Take steps to obtain information to eliminate gaps

Generating Alternatives

- Integrate previously learned and externally obtained information to generate a variety of high-quality alternative approaches to the problem
- Identify the strengths and weaknesses, the costs and benefits, and the short- and long-term consequences of different approaches

Choosing and Implementing a Solution

- Evaluate numerous potential solutions
- Make difficult decisions even in the absence of solid data or in ambiguous situations
- Commit to a solution in a timely manner
- Develop a realistic approach for implementing the chosen solution

- Observe the outcomes of implementing the solution
- Assess the need for alternative approaches
- Identify lessons learned

5. Technology Applications Using IT related systems to input and retrieve information.

- Comprehending the Basics
- Use basic computer hardware (e.g. PC, tablets, printers) and software (e.g. word processing software, spreadsheet software) to perform tasks
 - Use common computer terminology (e.g., program, operating system)
- Using Applications for Preparing and Managing Documents
- Use word processing, spreadsheets, presentation, and other common programs to create, edit, and retrieve document files
- Internet Applications
- Use the internet and cloud-based tools for information searching and to manage basic workplace tasks (e.g., timekeeping, maintaining employee records)
- Digital Communications
- Use various devices, programs, and apps for communicating electronically

6. Systems Thinking Seeing the connections between things (structure) and explaining conditions (behavior) using those connections

- Sees/perceives/interprets situations in terms of a systems, rather than linear world view
- Considers interrelationships to help identify patterns of change
- Applies systems methodology to understand, diagnose, formulate and test specific process based solutions.

Tier Four– Foresight Technical Competencies



1. Framing Scoping the project, defining the focal issue and current conditions

- Scoping
- Defining and bounding the topic, specifying the geography and timeframe.
- Mapping
- Locating the topic in its context, system, assumptions and world view; including key drivers of change; this may include a visual map as well as categories for initial research.
- Retrospecting

<ul style="list-style-type: none"> Understanding the topic or systems history, particularly back to the last major discontinuity. <p>Assessing</p> <ul style="list-style-type: none"> Diagnosing audience/client knowledge identifying stakeholders, modes of learning, and receptivity; preparing engagement processes and presentations appropriately.
<p>2. <u>Scanning</u> Exploring signals of change and indicators of the futures</p>
<p>Exploring</p> <ul style="list-style-type: none"> Finding relevant signals of change and indicators of the futures. <p>Collecting</p> <ul style="list-style-type: none"> Gathering the scanning hits into a structured inventory. <p>Analyzing</p> <ul style="list-style-type: none"> Evaluating the scanning hits using agreed-on criteria.
<p>3. <u>Futuring</u> Identifying a baseline and alternative futures</p>
<p>Letting Go</p> <ul style="list-style-type: none"> Suspending pre-conceived notions of the future to challenge assumptions in order to see the future with fresh eyes. <p>Converging</p> <ul style="list-style-type: none"> Formulating a preferred future, along with its assumptions and associated risk. <p>Diverging</p> <ul style="list-style-type: none"> Generating alternative futures or scenarios based on wildcards, systematically derived alternative projections and images built around key drivers and uncertainties, challenges, opportunities and aspirations.
<p>4. <u>Visioning</u> Developing and committing to a preferred future</p>
<p>Sensemaking</p> <ul style="list-style-type: none"> Considering the implications suggested by past, present and alternative futures. <p>Committing</p> <ul style="list-style-type: none"> Formulating a strategic direction, preferred future and committing to act on it. <p>Goal Setting</p> <ul style="list-style-type: none"> Setting specific, tangible goals to create a preferred future. Facilitating processes to help a group agree on shared goals to create a preferred future. Developing stretch targets, or audacious goals, to achieve the vision.
<p>5. <u>Designing</u> Developing prototypes, offerings or artifacts to achieve the vision and goals</p>
<p>Facilitating</p> <ul style="list-style-type: none"> Guiding interpersonal interactions to achieve desired foresight results. <p>Prototyping</p> <ul style="list-style-type: none"> Creating activities or artifacts to explore baseline and alternative futures and visions.

6. Adapting Enabling organizations to generate options to alternatives futures

Strategizing

- Reflecting on paths one could take over time, weighing their pros and cons.
- Bridging goals and the present state with strategies, options, tactics, and actions.
- Communicating alternative futures, vision, goals and strategic options to capture stakeholder attention and influence their actions.
- Monitoring indicators or precursors to indicate how uncertainty is resolving to move toward specific scenarios.
- Refreshing the process every few years or as needed.

Tier Five- Industry-Wide Sector Competencies

Consulting

Organizational

Academic

Consulting Futurist Work externally for multiple stakeholders providing foresight services

Senior Level

- Managing client relationships and experiences
- Scoping , designing, and overseeing a portfolio of consulting projects
- Supporting and contributing to business development
- Developing new approaches, methods and capacity building
- Developing and coordinating team or company budgets
- Cultivating managing, coaching, and training of team
- Communicating and facilitating interactions with clients and the public
- Identifying and lobbying for crucial topics to be considered projects and overall futures discourse

Associate Level

- Assist in developing new tools, processes, and systems
- Leading, conducting, managing, analyzing research for reports, presentations, and projects
- Facilitating group processes/workshops
- Developing event and workshop support materials: cards, posters, brochures, flyers, etc.
- Assist in new business development
- Developing and coordinating project budgets and project or research deliverables
- Communicating project and research outcomes

Entry Level

- Scanning and trend analysis
- Finding, gathering, curating and analyzing information
- Contributing to social media activity, newsletters, and other outreach activities

Organizational Futurist Work inside a single organization to help them be more successful by using foresight services

Senior level

- Planning, developing and implementing a foresight program
- Leading foresight efforts, including coordinating main research activities, horizon scanning, trend spotting, emerging issues, analysis, scenario development, white papers, issue briefs, in-depth reports, and other explorations.
- Developing a theoretical framework and perspective to aid understanding of trends and developments and translating into opportunities
- Supporting and contributing to organizational development
- Developing new approaches, methods and capacity building
- Developing and coordinating team / unit budgets
- Cultivating managing, coaching, and training of team
- Communicating and facilitating interactions with clients and the public

Associate level

Process and Tool Development

- Developing and managing systems, tools, and processes for foresight services
- Designing and facilitating workshops and foresight programs

Content development

- Developing a foresight framework, of trends, scenarios and future relevant content
- Leading trends analysis, such as signal spotting, developing and articulating scenario, and creating visions and developing strategy

Project management

- Sourcing, screening, developing, and structuring project proposals
- Developing project plans and overseeing project planning, investment, logistics, and an

Community-building

- Building internal and external relationships to create, nurture and grow a community of thought leaders relevant to the organization
- Managing stakeholders

Communicate results effectively to enable robust and effective decision making

Entry Level

- Monitoring, assessing and communicating developments in external environment
- Identifying trends and searching for anomalies
- Monitoring external environment to gain deep expertise in new foresight techniques, information sources, and vendors
- Scanning, filtering, evaluating and reporting on cutting edge developments to highlight opportunities and threats

Academic futurist Help others learn the theory and practice of foresight and conduct research to improve that theory and practice

- Demonstrating understanding and an ability to teach key concepts and tools of foresight
- Developing expertise within an academic discipline with a futures focus
- Developing and leading research on future relevant topics and publishing results

- Developing crossdisciplinary teams and approaches for research
- Raising awareness and building foresight capacity with communities

Resources Reviewed

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