Technical Design Specialists research, develop, and test complex products, tools, or systems, such as computer networks, software applications, manufacturing equipment, or other forms of intellectual property. They gather and analyze information to develop specifications, or to understand those provided. Technical Design Specialists may need to use creativity to overcome unexpected or complicated challenges in the process of designing a high-quality output within budgetary and time-frame constraints.

Example Positions
Computer Programmer, Mechanical Engineer, Database Administrator, Network Administrator, Systems Designer, Software Developer, Mechanical Designer

Competencies

Analytical Thinking – Technical Design Specialists are able to grasp the underlying concepts in complex information, identify root causes of problems, and formulate solutions based on a synthesis of information.

Information Seeking – They are driven by an underlying curiosity and desire to know more about things, people, or issues. This involves going beyond routine questions and includes digging or pressing for exact information; resolving discrepancies by asking a series of questions; or conducting less-focused environmental scanning for opportunities or miscellaneous information that may be used in the future.

Creativity and Innovation – They tend toward divergent thinking and the propensity to question existing practices; challenge commonly held assumptions; originate new or radical alternatives to traditional methods, processes, and products; and build on others' ideas.

Learning Agility – They discern patterns in data, recognize relationships between concepts, and rapidly apply learning from one context to solve analogous problems in different contexts.

Quality Focus – They ensure that all work in one's own area of the business, throughout the organization, by vendors, suppliers, etc. is performed with excellence and to high standards for quality and integrity.

Initiating Action – Technical Design Specialists tend to be self-starters and to take a lead role in improving or enhancing a product or service, avoiding problems, or developing entrepreneurial opportunities. They often demonstrate a positive attitude toward getting things done and seek out additional responsibilities that may go beyond the scope of their formal job description.

Time Management – They focus on completing all work tasks in a timely manner while remaining responsive enough to react to competing demands and shifting priorities. Technical Design Specialists are able to manage multiple responsibilities while being organized, keeping on top of important time-sensitive tasks, and performing all work accurately.

Representative Behaviors

- Easily grasps the underlying concepts of complex information

- Uncovers relevant information to make accurate judgments and sound decisions

- Creates new concepts and approaches to solve problems

- Updates knowledge and skills regularly

- Utilizes best practices to ensure that work outcomes reflect high standards for quality

- Takes initiative to capitalize on opportunities

- Plans own time and schedules activities to ensure achievement of goals

Technical Design Specialist Job Model

Leading	Active Communication	Interpersonal Dynamics	Making Decisions	Solving Problems	Managing Processes	Self-Management
Leadership Maturity	Influence and Persuasion	Interpersonal Sensitivity	Deliberative Decision Making	Creativity and Innovation	Quality Focus	Composure and Resiliency
Leadership Communication	Conflict Management	Helpfulness	Decisiveness	Analytical Thinking	Compliance	Generating and Expressing Enthusiasm
Driving Results	Negotiating	Service Focus	Strategic Thinking	Learning Agility	Response Orientation	Strength of Conviction
Leading Change	Active Listening	Relationship Building	Organizational Citizenship	Scientific Acumen	Safety Focus	Achievement Motivation and Perseverance
Managing Innovation	Communicating	Collaboration and Teamwork	Information Seeking	Business Acumen	Process Management	Self-Awareness
Managing Quality	Instructing	Organizational Savvy			Time Management	Adaptability
Team Building		Global Mindset			Planning and Priority Setting	Initiating Action
Coaching and Developing Others					Organizing and Documenting Information	Accountability
Delegating					Applying Standard Practices	Professionalism
Fact-Based Management						Continuous Learning
Strategic Talent Management						Extended Task Focus
Directing						Comfort with Ambiguity