

CoSE: Computer Science, Mathematics & Statistics, and Physics Career Readiness Skills

Employers look for the skills listed below when hiring new graduates. Use the descriptions as a reference to select which skills you feel you have developed. Meet with your academic advisor and faculty mentor to discuss which classes to take and other opportunities to strengthen areas where you are missing or need more experience.

Adaptability:

Develop the ability to adjust one's behavior, mindset, and approach in response to changing circumstances while maintaining productivity and effectiveness.

- Adapt problem-solving strategies when an algorithm, model, or proof does not work as expected.
- Learn new software, programming languages, or technical tools as needed.
- Stay productive when debugging, revising code, or reworking calculations.

Career & Self-Development:

Advance your career through continuous learning, self-awareness, exploring opportunities, and networking.

- Explore careers in software, data analysis, research, finance, education, or graduate study.
- Identify strengths in logic, problem-solving, coding, modeling, or analysis.
- Use internships, coding projects, competitions, or research to test interests.

Communication:

Clearly and effectively exchange information, ideas, facts, and perspectives with people inside and outside an organization.

- Explain technical concepts, results, or solutions clearly to different audiences.
- Listen carefully during team discussions, code reviews, or presentations.
- Ask questions to clarify requirements, assumptions, or expectations.

Critical Thinking:

Identify and respond to needs based on an understanding of situational context and a logical analysis of relevant information.

- Explain technical concepts, results, or solutions clearly to different audiences.
- Listen carefully during team discussions, code reviews, or presentations.
- Ask questions to clarify requirements, assumptions, or expectations.

Leadership:

Recognize and use personal and team strengths to achieve shared goals and support positive outcomes.

- Take initiative to move coding, modeling, or research projects forward.
- Support and motivate teammates by staying organized and dependable.
- Plan and manage tasks or projects from start to finish.

Professionalism:

Exhibit strong work habits, adapt to different organizational environments, and act in the best interest of the workplace and community.

- Meet deadlines, follow through on commitments, and manage responsibilities reliably.
- Act with integrity and ethical judgment in academic, research, and technical settings.
- Persevere through difficult problems, debugging, or revisions without losing focus.

Teamwork:

Build and maintain collaborative relationships to work effectively toward common goals while appreciating diverse viewpoints and shared responsibilities.

- Collaborate effectively with project teams, coding partners, or classmates.
- Take responsibility for assigned tasks and contribute to shared goals.
- Address conflict constructively to maintain progress and working relationships.

Technology:

Understand and leverage technologies ethically to enhance efficiencies, complete tasks, and accomplish goals.

- Use digital tools to communicate, create, model, and analyze data.
- Evaluate digital information to complete tasks and inform decisions.
- Apply digital tools to improve efficiency and solve problems.