

Exploring
Opportunities and
Inspiring Success in
Egypt

INTRODUCTION TO STEM CAREERS FOR WOMEN



WHAT IS STEM?

- - Science: Understanding the natural world to improve quality of life (biology, chemistry, physics)
- - Technology: Innovations in digital systems enhancing productivity and connectivity
- - Engineering: Applying scientific principles to design solutions (mechanical, civil, software)
- - Mathematics: Foundation for problem-solving, data analysis, and logical reasoning

STEM CAREER OPPORTUNITIES IN EGYPT

- - Tech Sector: Demand for software developers, cybersecurity experts, and data analysts
- - Healthcare: Roles for biomedical engineers, pharmacists, healthcare technology specialists
- - Environmental Science: Jobs in sustainable development, conservation, renewable energy
- - Engineering: Infrastructure, transportation, manufacturing are growing fields



GLOBAL STATISTICS ON WOMEN IN STEM

- - Global Gender Gap: Women represent 28% of the workforce in STEM worldwide
- - Top Regions: Nordic countries, Canada have highest female participation in STEM
- - Challenges: Social norms, fewer opportunities, funding disparities impact gender representation



WOMEN IN STEM IN EGYPT

- Comparison: STEM education for women is high, but employment lags behind due to cultural expectations
- Positive Trends: Initiatives by universities and companies support women in STEM fields



WHY WOMEN'S PARTICIPATION MATTERS

- Diverse Perspectives: Gender-diverse teams lead to innovative and well-rounded solutions
- Inclusive Problem-Solving: Women's insights help address broader social, healthcare issues
- Global Competitiveness: Gender parity can elevate Egypt's position in global innovation rankings



ECONOMIC AND SOCIAL IMPACT

- Economic Growth: Women in STEM contribute to GDP growth by filling high-demand roles
- Social Impact: Women role models inspire young girls to pursue STEM, reshaping norms
- Future Workforce: Ensuring gender equality in STEM creates a sustainable, diverse workforce



BREAKING STEREOTYPES

- Common Misconceptions: STEM is often seen as male-dominated or too challenging for women
- Changing Perspectives: Recognizing women's success in STEM is challenging stereotypes
- Empowerment Message: Women in STEM are role models, breaking barriers for future generations

INTERNATIONAL SUCCESS STORIES

- Marie Curie (Physics, Chemistry): Pioneering work in radioactivity, Nobel laureate
- Ada Lovelace (Mathematics): First computer programmer, foundational work in algorithms
- Mae Jemison (Astronaut, Doctor): First African American woman in space



SUCCESS STORIES FROM EGYPT

- Dr. Hoda ElMaraghy (Engineering): First female dean of engineering in Canada, global influence



OVERCOMING CHALLENGES

- Gender Bias: Women face implicit biases in hiring, promotions, and project funding
- Access to Resources: Limited access to STEM education and tools in some areas
- Community Support: Mentorship and communities help women overcome these obstacles



GROUP ACTIVITY: MOTIVATIONS FOR STEM

- Discuss in small groups: motivations to pursue/support STEM careers
- Examples: Role models, love for problem-solving, desire to make a difference



ACTIVITY INSTRUCTIONS

- Suggested topics: role models, challenges they overcame, dreams for the future
- Tips: Encourage everyone to speak, brainstorm openly, and listen to each other



ACTIVITY DEBRIEF

- Each group shares one key motivation or insight from the discussion
- Summary points to highlight diverse motivations



RESOURCES FOR WOMEN IN STEM

- Learning Platforms: Coursera, EdX, LinkedIn Learning for tech and STEM courses
- Mentorship: Organizations like Women in STEM (WSTEM) offer mentorship and networking
- Networking Groups: STEMInist, LeanIn Circles for support and connections



ADDITIONAL SUPPORT AND CONTACTS

- Egypt-based Resources: Egyptian STEM Education Alliance, Egypt Scholars
- Contact Information: Websites and social media for local resources supporting women in STEM