

# CORPORATED MANAGEMENT / HUMAN RESOURCES

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PAGE: 01

## Cogs and wheels of modern living

Engineers make products that people can use to better their lives.

**I**MAGINE crossing a bridge that you designed, creating a vascular stent that helps to relieve a cardiac patient's affliction, or developing a new invention that will assist the elderly become more independent.

In engineering, you are doing just that — making things people can use to better their lives. Engineering requires many different perspectives to find a single workable solution.

Engineering will constantly challenge you to think laterally and explore new ways to innovate. Obstacles become opportunities to view things in a more interesting way. Learning to overcome obstacles sharpens your mind and assists you in dealing with problems not only in engineering but in life as well.

An engineering career offers you the chance to be a part of life-changing innovation in science and technology. From fields as illusive and complex as aeronautics, nuclear power and biochemical breakthroughs, through to the crucial civil, electrical and mechanical fields, engineering provides the cogs and wheels of modern living.

From turning on a light switch to installing a pacemaker in open-heart surgery, or sending money through inter-bank transfers, and engaging in video chats half way across the world, people have come to take modern conveniences for granted.

The multitudes of pathways an engineer can take are diverse, but so too are the skills he requires to be successful in the new millennium. To become a contributor in the field of engineering, a bevy of attributes are required to keep you current, adaptable and employable.

Aside from an obvious interest in mathematics and science disciplines, the following are important:

### Taking an interest

The most important thing required to be a successful engineer is a genuine interest in engineering and the desire to excel at it. Passion is an undervalued skill. In any career, passion and pure joy at doing what you do are infectious in the workplace. Not only does passion provide for an infinitely more pleasurable office, but creativity breeds easily in these environments.

### Problem-solving skills

Walt Disney once said: "If you can dream it, you can do it." It is an engineer who makes these dreams become a reality. Great engineers are able to diligently and patiently come up with creative and workable solutions.

Being able to assess needs and identify issues is crucial to making informed decisions. What is the real versus the perceived problem? Once clarity is gained, the engineer then applies his learning to overcome obstacles and solve problems.

Always keep in mind that the solution may be a simple one. Too often, simple ideas are discarded when they would work best. True elegance lies in great simplicity.

Once a problem is properly identified, engineers will work industriously to discover solutions and ask themselves, "How can I do this better?" or "Is there another way?"

### Communication skills

In addition to conventional communication skills, engineers are encouraged to collaborate and work in groups. Being able to share with



An engineering career offers you the chance to be a part of life-changing innovation in science and technology. - Reuters

colleagues in group settings encourages open discussion, and gives rise to a free flow of ideas and adventurous thought.

### Persistence

Extraordinary ability and an interest in engineering may not always be enough. Facing challenges with gusto, maintaining a positive perspective and keeping focused on the final objective is critical. Giving up is not an option. Determination to succeed is paramount.

### The spirit to question

An education in engineering has the power to prepare you for many different career experiences and thrills. It takes years of hard work to become an engineer, and acquiring the necessary skills and knowledge needed to be an engineering professional is only the beginning of a lifelong adventure. As an engineer, every day is a learning experience and the skills developed through hands-on practical work are beneficial to a solid career.

Look to work with cutting-edge organisations that give engineering employees an opportunity to proffer innovation and entrepreneurial skills, uncommonly associated with the typical engineering graduate.

Engineers have a chance to make a real difference through creative design solutions within the built environment. Leading engineering firms prefer engineers who are comfortable with experimental, try-and-test approaches to problem-solving.

So are you confident in your foundation knowledge base to take a leap forward? Can you move past pre-set sacred boundaries and put what you have learned to the true test? Are you bold enough to share your wild and whacky thoughts with colleagues? Fearing failure stifles ingenuity. Have the courage to build upon your light-bulb moments, and ideas will flow forth.

Of course, an engineering idea that does not work on paper will never work in practice. So engineers are encouraged to continually test ideas against both engineering and non-engineering means.

When any obstacles are encountered, engineers are persuaded to explore deeper rather than criticise, transform concepts rather than discard. Above all, act positively and remain inquisitive.

You may be an engineer now, but have you reached your creative potential? Develop your drive, one strong enough to give you the tenacity to break the mould and to persevere, yet the humility and flexibility to accept ideas and adapt quickly. - Singapore Straits Times/Asia News Network

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