

•mathematics-
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you will stay

[Business](#), [Management](#)



- Mathematics- math skills are essential for both construction of hardware and programming of software.
- Software knowledge- Within this workforce the majority of the work you produce is performed by software, as you are required to design programs, write codes and test them for any problems.
- Hardware knowledge- Being aware of how a computer is built and its different components to be able to work with it.
- Programming Languages- An essential skill to conquer when producing computer programs, as you have to be efficient when using python to create codes.
- Management- Advancing and achieving a higher position is a purpose most people desire, whether it's in engineering or other fields, so it's a drive for us to achieve better, therefore you being able to manage a group of engineers is essential, otherwise you will stay in the same position.
- Problem Solving- Computer hardware engineers need to have the ability to develop and find solutions to any given problems. In addition coding is a major part of their role which needs to be mastered. It's essential, as nothing can be a maybe when doing this but a 100%, as any small mistake can ruin everything. When necessary and a problem takes place a person with good problem solving skills is needed to identify these mistakes and correct them. Therefore accuracy is vital when focusing on the small details as it can make a big difference.
- Education- Hardware engineering requires a bachelor's degree in computer or engineering.
- Analytical skills- Computer hardware engineers require this as it helps them solve problems and analyse equipment to determine the most suitable solution to improve them.
- Creativity- Computer hardware engineers design

new types of IT devices and are consistently designing, building and testing new hardware systems and producing blueprints of computer equipment using AutoCAD. Additionally, their role in solving technical problems requires 'thinking out of the box', as you will need to apply your creative thoughts to solve any given problem.

- Critical thinking- Engineers use their reasoning to examine assumptions, and identify strengths and weaknesses of solutions to problems.
- Communication- Hardware engineering jobs require team work therefore team skills is necessary as being part of a team means you will need to interact with other, to be able to progress as a team.
- Soft skills- Effective verbal and written communication, problem solving, and critical thinking. Benefits of soft skills is that you are able to develop good work ethic, confidence and team leadership, that will give you an advantage in your career.
- Patience- Within this field you are mostly required to sit and write codes, so you will need perseverance and patience to be able to succeed and progress.
- Troubleshooting- A skill required by the engineer to be able to find the cause of the mistake, hence you are able to avoid the same mistakes at later times.
- Learning- Being a quick learner, grasping skills quickly is crucial as technology keeps changing, so you will need to be continuously updated on your knowledge and aid you to grow within the engineer's workplace.

- Knowledge- Engineers are expected to have computer programming and software development skills and be able to test models of the computer hardware they design and analyse the results and adjust when required.
- Logic- Hardware engineers are most likely to plan programs and

such logically as it makes it easier to understand and change if needed. •Management- Advancing in work and gaining a higher position is a purpose most people desire whether it's in engineering or other fields, so it's a drive to achieve better, therefore to achieve this one of the required skills is to manage a group of engineers, otherwise you will stay in your same position. •Feedback- A hardware engineer must be open to any criticisms and should always ask for feedback from his manager or his colleagues, therefore should respond to these criticisms by making improvements. •Approachable- Colleagues are able to approach them without hesitation, hence the employee is able to build bonds with them.

This develops a happier working environment so employees come into work with a positive attitude and wanting to do work. •Prior experience- To be able to succeed in different aspects of the job a desirable skill which makes you as an individual more employable is having previous experience, as it provides you with skill and experience hence you become more favorable. This is because you have beneficial knowledge within the field that you aren't taught at university, ••Multiple languages- Competition for jobs is common, so it's important to be seen as unique, so having a second language is necessary it enables you to interact with foreign clients which benefits your company. In addition, you're able to build friendships with other colleagues who speak your second language which can also mean you are able to relate to the same culture. As a result you are able to develop a family at work, hence breaking any existing barriers, making work more enjoyable and comfortable, which can reflect on your attitude towards work. Also many

researches have shown that employees with multiple languages are efficient and have a higher capability at solving problems, which is vital when fixing a problem in a computer.

- Time management- To stand out from other potential employees you need to have time management to be able to meet deadlines, which will reduce stress and meeting these deadlines to the best of your ability as a hardware engineer is key which can be achieved through focus and hard work, which is highly achievable when you're not under pressure and stress free.
- Open door policy- A potential employee must be open to any criticisms or advice given by others, as well as having this characterise means open communication is present therefore relationships between employees and managers are stronger.

- Curiosity- To seem favorable compared to others you need to be curious to be able to research and discover a solution to problems, in order to help the company.