

# [•mathematics- engineers is essential, otherwise you will stay](https://assignbuster.com/mathematics-engineers-is-essential-otherwise-you-will-stay/)

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•Mathematics- math skillsare essential for both construction of hardwareand programming of software.•Software knowledge-  Within this workforce the majority of the workyou 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 it’sdifferent components to be able to work with it. •Programming Languages-  An essentialskill to conquer when producing computer programs, as you have to be efficientwhen using python to createcodes. •Management- Advancing and achieving a higherposition is a purpose most people desire, whether its in engineering or other fields, so it’s a drive for us to achieve better, therefore youbeing able to manage a group of engineers is essential, otherwise you willstay in the same position.

•Problem Solving-  Computerhardware engineers need to have the ability to develop and find solutionsto any given problems. In addition coding is a major part of their role whichneeds to be mastered. It’s essential, as nothing can be a maybe when doing thisbut a 100%, as any small mistake can ruin everything. When necessary and aproblem takes place a person with good problem solving skills is needed toidentify these mistake and correct them. Therefore accuracy isvital  when focusingon the small details as it can makea big difference. •Education- Hardwareengineering requires a bachelor’s degree in computer or engineering.

•Analytical skills- Computerhardware engineers require this as it helps them solve problems andanalyse equipment to determine the mostsuitable solution to improve them. •Creativity- Computerhardware engineers design new types of IT devices and areconsistently designing, building and testing new hardware systems and producingblueprints of computer equipment using AutoCAD. Additionally, their role in solvingtechnical problems requires ‘ thinking out of the box’, as you will need toapply your creative thoughts to solve any given problem.

•Critical thinking- Engineers usetheir reasoning to examine assumptions, and identify strengths and weaknessesof solutions to problems.•Communication- Hardwareengineering jobs require team work therefore team skills is necessary as beingpart of a team means you will need to interact with other, to be able toprogress as a team. •Soft skills- Effectiveverbal and written communication, problem solving, and critical thinking. Benefits of soft skills is that you are able to develop good worketic, confidence and team leadership, that will giveyou an advantage in your career. •••Patience- Within thisfield you are mostly required to sit and write codes, so you will needperseverance and patience to be able tosucceed and progress.•Troubleshooting- A skillrequired by the engineer to be able to find the causeof the mistake, hence you are able to avoid the samemistakes at later times.•Learning- Being a quicklearner, grasping skills quickly is crucial as technologykeeps changing, so you will need to be continuously updated on yourknowledge and aid you to grow within the engineer’s workplace.

•Knowledge-  Engineers are expected to have computer programmingand software development skills and be able to test models of thecomputer hardware they design and analyse the results andadjust when required.•Logic- Hardwareengineers are most likely to plan programs and such logically as it makes iteasier to understand and change if needed.•Management- Advancing in work andgaining a higher position is a purpose most people desire whetherits inengineering or other fields, so it’s a drive toachieve better, therefore to achieve this one of the required skills is tomanage a group of engineers, otherwise you will stay in yoursame position.•Feedback-  A hardware engineer must be open to anycritics and should always ask for feedback from his manager or his colleagues, therefore should respond to these criticisms by making improvements.•Approachable- Colleagues areable to approach them without hesitation, hence the employee is able to buildbonds with them.

This develops a happier working environment so employees comeinto work with a positive attitude and wanting to do work. •Prior experience- To be able tosucceed in different aspects of the job a desirable skill which makes you as aan individual more employable is havingprevious experience, as it provides you withskill and experience hence you become more favorable. This is because you have beneficial knowledge within the field that you aren’ttaught at university, ••Multiple languages- Competition for jobs is common, so it’s important tobe seen as unique, so having a second language is necessary it enables you tointeract with foreign clients which benefits your company. In addition, you’reable to build friendships with other colleagues who speak your second languagewhich can also mean you are able to relate to the same culture. As a result youare able to develop a family at work, hence breaking any existing barriers, making work more enjoyable and comfortable, which can reflect on your attitudestowards work.  Also many researches haveshown that employees with multiple languages are efficient and have a highercapability at solving problems, which is vital when fixing a problem in acomputer.•Time management- To stand out from other potential employees you needto have time management to be able to meet deadlines, which will reduce stressand meeting these deadline to the best of your ability as a hardware engineeris key which can achieved through focus and hard work, which is highlyachievable when you’re not under pressure and stress free. •Open door policy- A potentialemployee must be open to any criticisms or advice given by others, as well ashaving this characterises means open communication is present thereforerelationships between employees and managers are stronger.

•Curiosity-  To seemfavorable compared to others you need to be curious to be able to research anddiscover a solutions to problems, in order to help the company.