

# Forensic lab design term paper examples

[Law](#), [Evidence](#)



## **Introduction**

Forensic science is the study of techniques in detecting and provide the legal system in by us of some precision tools with an aim of clarifying the evidence over a criminal offence. The field of forensic study does not necessarily requires a field for one to qualify being a technician, he or she can opt for any related one but can sttill work as a forensic laboratory technician with the relevant requirements. Designing a forensic laboratory is believed to be a very challenging task for any organization. Issues like the present technology has to be put into consideration when designing and building the laboratory. More importantly, environmental health has to be taken into consideration when designing the laboratory and also the safety of the people living around.

The designing and the building of the laboratory requires one to come up with a well elaborated budget with all the requirements with their costs if possible. This will ensure the organization achieves its goals in terms of getting the necessary materials for the construction of the laboratory. It is advisable to however is planning the budget to break The budget is as outlined below.

- One of the important aspects of the budget in planning the designing and building of the forensic laboratory is the case of the capital cost. This is a major item in planning for any organization intending to come up with a forensic laboratory. It involves the aspects of purchasing the materials for use in the constructions, the softwares to be used in the forensic laboratory, and ways of getting the accommodation and means of refurbishing it according to the latest technological improvement. The cost still has some

important aspects which needs to be factored in the budget estimation; these are the issues of the rental costs and the maintenance costs, the costs of the staff salaries and necessary training for the staffs and more importantly the ongoing maintenance and the way of upgrading the system to suit the level of the technology requirements including the refurbishment of the software licenses.

- On the case of the budget, one is still required to come up with the computer hardware requirements that is necessary for the establishment of the laboratory. These includes; the IDE cables, ribbon cables for the floppy discs, the power cords, the hard disks drives, graphic cards both the PCI and the AGP types should be made available, computer hand tools.

- Another important factor is the computer software requirements for the laboratory establishment. These entails very vital items to be used in the establishment of the machines within the laboratory. These are microsoft office like that of the 2007, XP, 2003, 2000 and many others, Quicken, programming languages, specialized viewers, corel office suite, StarOffice and also Patchtree Accounting Applications.

The physical requirements of the laboratory is very essential for consideration when setting out the forensic laboratory. Failure to put them into consideration when coming up with the lab may make the organization in achieving its desired goals and objectives of curbing the criminal offence may be hampered at a bigger extent. These factors are as follows:

- The laboratory should be secure and safe for the various forms of the investigations to be carried out. This should ensure the information is not lost and all important data are secure and not corrupted or destroyed.

- The inventory control assets should be kept safe for more information that may help the owner to know when he or she should be making other orders pertaining to what they have in the stock.
- The security policy of the system must be put in place to prevent the access by unauthorized members. Members are only allowed to sign in by providing the necessary credentials for the account accessibility.
- More on security issues some visible indicators should be used to show that visitors are in the laboratory like the use of the badges to distinguish the members and the visitors. This will enhance the security of the system is maintained without interference from the intruders who may decide to access the system without the permission of the staffs.
- They can as well install some intrusion alarm system to indicate in case there is some kind of interference in the system and necessary remedies to be taken by the body in charge.

Some very important hardware requirements are like the firearms which is used to detect the kind of the weapon which was used to make a mark on the object in question, or the one which had been used to kill the person. The technician has to carry out a study on the type of the bullet used or the cartridges and then use shooting baths to fire weapon, then identify the mark made by the bullet which makes them make a remark about the crime.

Another important tool used is the photography, which is used in documenting the crime scene for further investigations to be carried out. Processing the resources and also the dark room services allows the investigators come up with the desired results of the crime after thorough

investigation is made.

Besides these hardware tools, they can still use the software tools in analyzing the crime activities. They can use the video recording, audio files, computer data among other important things necessary in releasing the results.

The laboratory should also be very secure even in the form of the construction in that there should be proper roofing in that true floor to ceiling roofing that will even prevent the interference of the noise from the surrounding. The door access should be one which can be locked and the containers being used should be secure also.

The workstations to be used for better results should be the multipurpose for high end analysis tasks. In case the laptops are in use, then the following should be put in place the FireWire ports, the USB 2.0 port should be considered and be in operation mode, PCMCIA SATA hard disks all should be considered. Though they are still very few in the workstations, but they are improving and they are efficient in use as compared to the desktops.

The use of the items like secure containers will ensure the evidence is secure and not tampered with, something which can affect the final results of the investigation. Another important aspects to be used in analyzing and ensuring the security of the evidence is by use of the TEMPEST which is for the provision of the information regarding the evidence and should be independent and in opinion and should not be having any form of conflicts in provision of the results. The use of evidence lockers is another way of securing the evidence for a particular investigation. More importantly, the use

of the media safe is also necessary in the attainment of the better results of the criminal investigation.

## **Conclusion**

Forensic laboratory is very essential in dealing with criminal activities in every country around the world. It helps curb some serious crimes for people having fear of being detected. Though the installation could pose a great challenge, it is vital in dealing with any kind of a criminal activity and should be employed instead of applying the manual means of investigating the crime. Is it efficient though expensive in installing.

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