**Requirements Specifications in Research**

In conducting research, particularly in technical and capstone projects, the **Requirements Specification** phase ensures that all necessary components—programs, software, and hardware—are well-defined and available. This step is crucial for the success of the project as it lays the foundation for implementation. Below is a breakdown of the key aspects of Requirements Specification:

**1. Program, Software, and Hardware Specifications are Clearly Defined**

Before developing a system or conducting an experiment, it is essential to specify:

* **Program Specifications** – Define the functionalities, logic, and operations of the program. This includes the programming language to be used, algorithms, and system flow.
* **Software Specifications** – Identify the necessary software tools, operating systems, compilers, or database management systems required for the project.
* **Hardware Specifications** – List the physical components needed, such as computers, sensors, storage devices, and networking equipment.

**2. Software and Hardware Requirements are Available**

Ensuring that the required software and hardware components are accessible is necessary for the smooth development and execution of the project. This involves:

* Checking for **availability** of required software tools (e.g., licensed or open-source software).
* Verifying the **compatibility** of hardware components with the chosen software.
* Identifying any **budget constraints** for acquiring necessary tools and equipment.

**3. Major Program/Modules of the Project Justify the Project Title**

The research or capstone project should have well-defined **program modules** that align with its title and objectives. This includes:

* Ensuring that each major component contributes to the **overall goal** of the project.
* Demonstrating how the system's functionality supports the research objectives.
* Providing **logical connections** between the project title, methodology, and expected outcomes.