

## 2021 Final Year Project Definition Form

**Project Title:**

Optimising the Procurement and Logistics of Aerosud

**Company details:**

Aerosud Aviation Pty (LTD)

**Company background:**

Aerosud was established in 1990 in Pretoria, South Africa and currently employs more than 800 people. It is an aeronautical and manufacturing company focusing on producing new innovative and high quality products for various customers. Parts include interior aircraft parts and assemblies for Boeing, metal parts for the Airbus A320 & A350 family wings, interior and metal parts for Airbus A400 Military Germany and France. Aerosud also produce specialized quality parts for overseas and local customers including BAE systems, Spirit AeroSystems and Paramount Group. Aerosud has a strong focus on the Theory of Constraints methodology to improve company performance.

**Project description:**

Aerosud needs to procure raw material and import it from across the world to support production. It manages these materials by using the TOC methodology where buffers are set up for over 2000 Stock keeping Units. The buyers are required to order to satisfy the demand of the buffer, but also need to ensure that the parts get shipped to Aerosud efficiently.

Currently Aerosud faces a problem where there are stock outs impacting production. The student will need to look at the activities relating to the purchasing and logistics of material to understand what the cause of these stock outs are in order to prevent it. The student needs to apply their theory to identify, exploit, subordinate and elevate the problems identified. The student must also develop techniques or methods to be implemented to improve the process of procuring material

The following tasks are envisaged:

- Create process maps
- Capacity analysis, including time studies
- Identifying current problems, constraints, limitations and inefficiencies
- Performing literature study on methods to improve production performance and problem solving
- Create simulation models
- Defining and creating methods or systems to achieve the required customer demand as well as increasing Throughput and reducing Inventory and Operating Expense.
- Developing implementation process to support the demand increase and improve overall flow and efficiency.

**Industry mentorship:**

Guidance will be given from an experienced group within the Supply Chain department which include industrial engineers

**Industry mentor contact details:**

Eugene Nel

Inbound Supply Chain  
Manager

e.nel@aerosud.co.za

0825799539

**Project topic application process:**

Student is expected to apply the 5 focusing steps of the Theory of Constraints.

Student is expected to spend time at Aerosud (on the job) where it will not be a project that can be solved from home! Student needs to have their own laptop.

Application Deadline: 10 March 2021. Feedback will be given 12 March for successful candidates.

**Any other relevant information:**

For any more info please email any questions to Eugene at [e.nel@aerosud.co.za](mailto:e.nel@aerosud.co.za)