



# UTC Aerospace Systems

UTC Aerospace Systems is among the largest global suppliers of technologically advanced products. We design and manufacture aerospace systems for commercial, regional, corporate and military aircraft and are a major supplier for international space programs. Our industrial products serve industries ranging from hydrocarbon, chemical and food processing to construction and mining.

Engine Systems (ES) provides complete jet engine controls and accessory packages. From the fuel tank to the ignitors, we have the resources and expertise to design, qualify, and manufacture first in class central systems for our aerospace engine customers.

The UTAS Marston site in Wolverhampton has been providing products for aerospace use for over 90 years; from the inception of aircraft and aero-engine manufacture in Great Britain. Today we supply an integrated range of heat transfer and fluids management products for commercial and military markets, including heat exchangers, metallic and flexible hoses, fuel manifolds and ozone converters.

UTAS Marston is looking for **Industrial Placement Students – Engineering Function** to join our team in 2017.

## **Location: HS Marston**

### **Position summary:**

By challenging existing design philosophy and supporting the introduction of new materials / processes into HS Marston products, the IP student will be involved in the following key areas: Mechanical Design, Stress, Thermal Engineering and Test Engineering.

### **Responsibilities**

#### **Mechanical Design:**

Utilizing the latest CAE software the student will support New Product Development and Continuous Product Development activities to learn and understand Design for Manufacture and Assembly (DFMA). This role will include integration with other departments outside of Engineering such as Procurement, Operations and External Customers.

#### **Stress**

Working closely with the Mechanical Designers and the project teams the student will perform structural analysis on products using traditional hand calculations and Finite Element Analysis (FEA). There will also be an opportunity to correlate analysis data with actual test evidence on products



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## **Thermal Engineering**

The Thermal Engineering department is a key success of future products developed by HS Marston. Heat Exchanger product development starts with Thermal Analysis for the initial assessment of the customers' requirements. The Thermal department defines the size of the heat exchanger based on the performance requirements before handing over the installation/ manufacture of the unit to the Mechanical Design Team. The student will be involved in sizing the heat exchangers using proprietary software tools and supporting the introduction of the new computations fluid dynamics (CFD) techniques.

## **Test Engineering**

In order to have exposure to complete product development the student will spend time witnessing tests and reviewing data on products produced within Engineering. This may range from Research and Technology projects to the supporting of certification tests of products going into service.

## **Special Products**

Multi-discipline office as part of a mechanical and thermal design team. The level of responsibility ranges from product design, manufacture and customer interaction. The varied role allows the candidate exposure to all elements of the engineering role. Main role is to take responsibility for Mechanical design on a variety of projects showing passion and enthusiasm and working under pressure and too tight deadlines.

## **Qualifications Required:**

Studying for a degree in Mechanical / Aerospace Engineering with an interest in the above. This placement will require a candidate of good computer literacy and knowledge of CAD applications would be advantageous but not essential. Other qualities include enthusiasm, flexibility and good communication.

Anyone wishing to apply for the above vacancy should send a CV and covering letter to the Human Resources Department.

Interested students should in the first instance email their C.V and covering letter to [Natalie.Doherty@utas.utc.com](mailto:Natalie.Doherty@utas.utc.com) by **12<sup>th</sup> May 2017**

This position may involve access to export controlled information and hardware where an export license would be required for compliance with applicable laws and regulations. Employment will be subject to satisfactory security checks, export license approval, and if required, completion of a non-disclosure agreement.