



CASE STUDY: EDUCATION  
UNIVERSITY CENTRE





Original 3D Visualisation





## Design Approach

There were a number of key principles that informed the design development of the University Centre:

- A compact footprint was required and buildability was considered from the outset to ensure the project's tight construction and budgetary restraints could be met.
- The new building needed to improve relationships with the adjacent buildings, including formalising the courtyard relationship with the Centre of Engineering Excellence.
- The design needed to work around the mature trees on the site, as they greatly contributed to the visual amenity of this part of the campus.
- The design needed to unlock the potential of the site, incorporating views out over the open fields to the west, and tree canopy views into the mature trees.
- Overall a high quality scheme was required to uplift this part of the campus, through both the building itself and the surrounding hard and soft landscaping.

The timescales for the design and construction of the building were extremely tight, and as such the scheme was designed to be quick and easy to develop on site. Wet trades were avoided where possible and steel frame construction utilised, combined with a composite cladding system which allowed the building to be made watertight very quickly.

The design comprises of two main elements, a simple rear rectangular block, containing two stories of regular teaching accommodation stacked on top of each other, which is clad in a horizontally defined insulated metal cladding. The front portion of the building is more free-flowing, adapting to the shape of the site and designed to give framed glimpses out of the building at different angles. Here a vertically designed insulated panel system has been used, which has been faceted around the curves. A small element of colour is introduced to define the building entrance, designed to tonally complement the blue colour used on the Centre of Engineering Excellence Building whilst giving the University Centre it's own identity.



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## UNIVERSITY CENTRE

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**Name of Building**

University Centre

**Date Completed**

Autumn 2016

**Project Cost**

£2.4 million

**Building Type**

Education—Post 16

**Location**

Connah's Quay, Flintshire

**Client**

Coleg Cambria with Swansea University

**Contractor**

Wynne Construction

**Building Overview**

The University Centre at Coleg Cambria's Deeside campus is a purpose designed facility for higher education students enrolled at Swansea University undertaking engineering placements at the nearby Airbus factory in Broughton. The scheme provides around 1000sqm of high quality teaching accommodation over two storeys, including workshops, lab spaces and lecture facilities. With a focus on aeronautical and engineering technologies, the building language reflects the history of innovation and collaborative working between Coleg Cambria and the local Aeronautical and Engineering industries.

Two obsolete teaching blocks were demolished to make way for the new development. The University Centre helps to uplift the surrounding campus area whilst providing advanced teaching facilities, including video conferencing facilities to link back to Swansea University.

The BREEAM Excellent rated scheme minimises energy demand by implementing simple design principles to the building layout, including allowing natural ventilation, good levels of natural light and avoiding overheating where possible. Air source heat pumps contribute to the building's heating demand whilst PV panels on the roof provide a source of electricity for the building.

