University-college collaboration to improve Level 3 engineering learner progression into higher education

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Context and background

In 2020, UWTSD (Engineering) and Gower College Swansea (GCS) entered into a formal collaboration with three core objectives:

1. lower barriers to participation in higher education (HE) for local learners
2. increase the number of students choosing Engineering as a viable and attractive career path
3. promote Engineering as a mode of study at both FE and HE levels.

To support these aims, a review of the Engineering curriculum at GCS led to the replacement of the existing BTEC Diploma in Engineering with the Level 3 Advanced Manufacturing Engineering (AME) programme, incorporating a dedicated Motorsport pathway. This pathway was developed in close collaboration with Pearson (as the awarding organisation) and tailored to align with the aspirations and needs of local learners, with significant input from the GCS Motor Vehicle Department.

Programme design and delivery

Initial discussions between GCS and UWTSD revealed that several key components required for effective delivery of the AME programme, such as access to industry-grade motorsport facilities, race car preparation and mentorship by professionals with racing experience, could not be met within GCS alone. A shared-delivery model was developed in response.

Through this collaborative model, GCS students enrolled in the AME programme are brought to the UWTSD SA1 Swansea Waterfront Campus every Tuesday for a full day of learning. The day is split between practical motorsport workshop sessions led by UWTSD staff and theoretical classroom learning delivered by GCS staff within UWTSD facilities. Importantly, students share workshop space with UWTSD undergraduate (Level 4) Engineering students, providing valuable peer learning opportunities and demystifying the university experience.

This immersion within an HE environment was designed not only to enrich the technical training of learners but also to tackle a recurring challenge: the perception among some FE students that ‘university is not for me.’ Through regular exposure to university staff, facilities and students, the programme sought to instil familiarity and confidence in learners, making HE progression a more tangible and attainable goal.

Impact and outcomes

Quantitative and qualitative data indicate a strong upward trend in HE applications and enrolments among GCS AME learners since the inception of the collaboration; from fewer than 5 learners progressing to HE in 2018-19 to a projected 18 learners in 2025-26.

The number of students enrolling in the AME programme itself has also steadily increased from fewer than three in 2021 to 18 current applications for the upcoming academic year. This growth supports the hypothesis that exposure to high-quality, industry-relevant HE environments enhances both recruitment into Level 3 Engineering pathways and progression beyond.

Testimonials from GCS staff further reinforce how learners have benefitted enormously from having the opportunity to attend the SA1 UWTSD campus as part of the main delivery of the course these findings. One such account describes how the opportunity makes the often-daunting prospect of progression to HE a simpler step.

> “[Learners] are able to carry out workshop sessions in an environment that is perfect to the context of the course, working on competition vehicles, using specialist tools and equipment and learning processes (such as race preparation) that they would not have been able to, at this level, in our facilities. These context-rich learning opportunities have helped with learner engagement, assignment submissions and importantly, provided a taste for HE where our learners gain a familiarity with the environment and staff. This makes the often-daunting prospect of progression to HE a simpler step.
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> Matthew Oatway - GCS Curriculum Leader WBL Tycoch ”

Student feedback during a recent forum with first year UWTSD students who had progressed from the AME was incredibly positive. One student cited the shared-campus experience as instrumental in their successful progression. Many reported feeling "at ease" at the university thanks to prior exposure during their time at GCS. The feedback demonstrated how the collaborative AME programme provided a perfect stepping stone to HE.

Moreover, promotional activity related to the partnership, such as social media coverage of track day events at Llandow and Pembrey race circuits, has directly contributed to increased applications to the AME programme, further highlighting the value of showcasing real-world, collaborative learning environments.

This initiative has:

- ✓ improved transition rates from FE to HE
- ✓ created a pipeline of motivated learners within STEM – a strategically important sector
- ✓ addressed cultural and psychological barriers to HE engagement
- ✓ provided an applied, industry-relevant learning experience that aligns with employer and policy needs.

To build on this success, the Engineering departments at both UWTSD and GCS are keen to explore further avenues to support the progression of Engineering students from Level 3 to professional Engineer status.

Collaborator

Gower College Swansea

This case study has been produced and shared as part of the Medr-funded QAA Cymru project: Enabling learner progression into and within higher education.

Find out more about the project on the QAA Cymru website.