

Foundation Degree in River and Coastal Engineering

Defra has been working closely with the EA to facilitate skills and capacity building for local authorities.

A two year foundation degree was introduced at the University of the West of England (UWE) to meet the EA and LA needs.

The programme is taught in a form of blended learning with six block week's attendance during the year combined with electronic distance learning topics studied back in the office and at home.

This effectively integrates the course with the provision of ongoing work experience and mentoring, provided by the local authorities.

The combination of academic study with practical work experience will provide qualified staff with transferable skills for immediate implementation in the workplace.

UWE worked in partnership with Micro Drainage to help deliver industry standard training with industry standard technology.

The training courses were integrated into the Local Flood Risk Management Project Module, designed by Dr. Hazem Gouda specifically for the local authority students.

Student Testimonials

Here are a few of the comments received from students during the course;

'Thank you very much for all your hard work and information – Invaluable.'

'Absolutely Brilliant - incredibly well taught.'

'Well structured, clearly presented, good booklets for future reference. Thank you.'



UWE Testimonial

أجد كأخصائي في إدارة المياه استخدم النماذج الهيدروليكية لأكثر من 22 عاماً في تصميم مشاريع في أوروبا وأفريقيا والخليج العربي أن برنامج Micro Drainage (WinDes®) يعتبر أداة استثنائية لتصميم وتحليل شبكات الصرف الصحي، والذي يتضمن نموذج محاكاة لحركة تدفق المياه، بالإضافة إلى قدرته علي حساب كميات شبكات الصرف الصحي والسطحي وتكلفتها. ولذلك أعتبر برنامج Micro Drainage (WinDes®) أحد أفضل النماذج الهيدروليكية في مجال المياه التي تستخدم عالمياً.

ونظراً لخبرتي واسعة النطاق في قطاع المياه بما في ذلك إدارة مخاطر الفيضانات عينت لتصميم مادتين علميتين متعلقتين بإدارة المياه السطحية لطلاب المجالس المحلية في جامعة غرب إنجلترا ببريستول (UWE)، وكنت أهدف من خلالهما إلى ضمان تعليم الطلاب مهارات يمكن الإستعانة بها في أماكن العمل.

وقمت بإضافة التدريب علي برنامج Micro Drainage (WinDes®) كجزء من المادة العلمية، والذي تم بواسطة Peter Coombs، وجاء تقييم الطلبة للمادة العلمية والتدريبية إيجابياً للغاية. ويعتبر الطلبة الآن مدربون علي إدارة وتقييم مشاكل الفيضانات السطحية في أماكن عملهم بإستخدام برنامج Micro Drainage (WinDes®).

دكتور مهندس

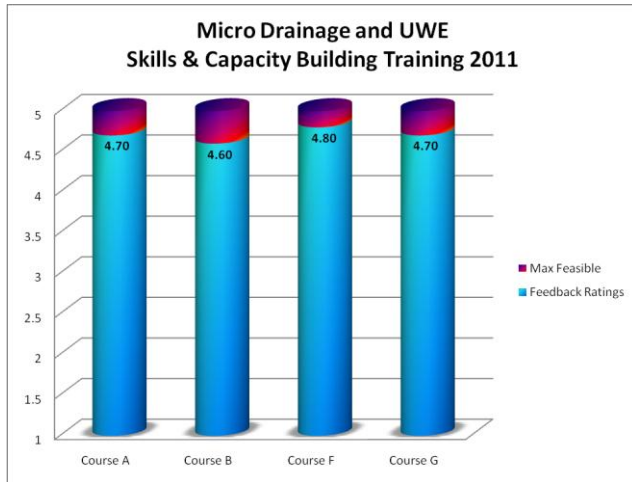
حازم جودة

BSc, MSc, PhD, CEng, CEnv, MCIWEM

Objective Feedback

Objective feedback was provided by all the 19 students and the chart below summarises the ratings for each course out of a possible maximum 5;

Course A:	4.70
Course B:	4.60
Course F:	4.80
Course G:	4.70



Course A covered drainage design fundamentals and the theory behind producing a flow conveyance system for relatively frequent return periods.

Course B builds upon the first course to develop a computer model that incorporates attenuation and storage structures to mitigate flood risk for more extreme events.

Course F develops the model into a fully integrated Sustainable Urban Drainage System (SUDs).

Course G uses hydrological principles to calculate peak greenfield discharge rates, generate runoff from rural landscapes and analyse overland flood flow routing.

In combination the courses seamlessly integrate hydraulics with hydrology.

This Defra & EA investment in people through such advanced quality training will improve competence and enhance the delivery of the LLFA & SAB roles.

There is an opportunity for Foundation Degree graduates to “top-up” to a BSc(Hons) which alongside the Grad Dip in River and Coastal Engineering are both accredited by ICE and CIWEM and recognised by the Engineering Council as satisfying the educational base for Incorporated Engineer.



Conclusion

UWE and Micro Drainage have proven how academia and industry leaders can collaborate and work in partnership to help deliver the requisite skills to implement the latest legislation in the area of sustainable development as well as flood risk management.

Contact Details

For further information about WinDes, training and workshops, visit www.microdrainage.co.uk, email info@microdrainage.co.uk or call +44 (0)1635 582555.

To share your views, keep abreast of legislation and research visit Piped Up! The Micro Drainage blog at <http://pipedup.wordpress.com>

For details on the UWE surface water management courses email hazem.gouda@uwe.ac.uk or visit <http://www.uwe.ac.uk/>

