

# ORDNANCE, MUNITIONS & EXPLOSIVES PROFESSIONAL DEGREE APPRENTICESHIP









#### WORKFORCE SOLUTIONS

**TECHNICAL RESEARCH** & DEVELOPMENT

SAFETY

#### **MANUFACTURING &** PROCESSING

**BREAKDOWN & DISPOSAL** 

#### **TEST & EVALUATION**





### **OME** Professional Degree Apprenticeship

Funding is now available for an OME Degree Apprenticeship (level 6) which will be delivered by the University of Wales Trinity Saint David, Swansea at the new SA1 Innovation Quarter (IQ) campus.

- Degree apprenticeships are a great way to gain hands-on experience while studying towards a full bachelor's degree and earning a wage.
- You will be in employment in an OME related role and will study using a flexible study method agreed between the university and your employer.
- · Your tuition fees and training costs will be fully funded.
- · Apprenticeships are all age programmes with no upper age restrictions. · The knowledge, skills and behaviours for this Apprenticeship will be delivered through a combination of university attendance
- (off the job training) and training with the employer (on the job training) · Your study will be a combination of academic study at university,
- blended learning and employer-based specialised training. Plus focused assignment and project work in conjunction with your employer.

#### The OME Degree Apprenticeship has five pathways:

- Technical Research and Development
- Safety
- Manufacturing and Processing
- Breakdown and Disposal
- Test and Evaluation

#### The apprenticeships comprise the following degree programmes along with support from the employer to provide relevant work experiences:

- BSc (Hons) Ordnance, Munitions and Explosives (Technical Research and Development)
- BEng (Hons) Ordnance, Munitions and Explosives (Safety)
- · BEng (Hons) Ordnance, Munitions and Explosives
- (Manufacturing and Processing)
- BEng (Hons) Ordnance, Munitions and Explosives (Breakdown and Disposal)
- · BEng (Hons) Ordnance, Munitions and Explosives (Test and Evaluation

OME Professionals can carry out a range of technical, engineering and scientific activities which may include laboratory-based investigations, engineering studies and scientific experimentation in their specialist field. All pathways will follow a core of modules but will specialise in a field that is mapped to a specific job function.



#### TECHNICAL RESEARCH AND DEVELOPMENT <sup>+</sup>

In addition to the core themes, the Technical Research and Development Profes-sional will focus on Technical Research and Development and Technical Authoring.

The Technical Research and Development Professional could typically be employed in these roles within the sector: Research and Development Scientist/Engineer, Product Engineer/Designer, Explosives Chemist, Analytical Instrumentation, Indus-trial Explosives Chemist, Ballistician, Energetic Research Scientist, Terminal Effects Designer.

#### SAFETY \*

In addition to the core themes, the Safety Professional will focus on OME Law and Safety Management.

The Safety Professional could typically be employed in these roles within the sector: Decontamination Officer, Range Safety Officer, Explosives Safety Representative, Safety Advisor, Safety Manager, Training & Assessment Officer, Dangerous Goods Safety Advisor, Transport Manager, Custody Holder, Magazine Manager.

#### MANUFACTURING AND PROCESSING <sup>x</sup>

In addition to the core themes, the Manufacturing and Processing Professional will focus on Systems Engineering and OME Manufacturing and Processing.

The Manufacturing and Processing Professional could typically be employed in these roles within the sector: Product Engineer/Designer/ Operator, Manufacturing/Process Engineer, Quality Assurance/Control Engineer, Maintenance Engineer, Pro-cess Design Engineer, Process Chemist, Process Modeller.



#### **LEVEL 4**

<b>Principles of Systems</b>
Engineering +*x

- Electrical and Electronic Principles +\*x
- Physics 1 (OME) +\*x
- Mathematics +\*x
- Signals and Systems +\*x
- Study Skills +\*x
- Chemistry 1 (OME) +\*x

#### LEVEL 5

- Computer Aided Engineering x
- Digital Signal Processing and Communica-tions +\*x
- Electromagnetic Radiation +\*
- Principles of OME +\*x
- Instrumentation and Control +\*x
- Research Methods +\*x
- Safety and Hazard Assessment  $+^{*}x$
- Advanced Chemistry of OME +\*x

#### LEVEL 6

- Systems Engineering x
- Remote Sensing and Imaging x
- Scientific Principles of OME Design +\*x
- Structural Mechanics \*
- OME Technical Research and Development +
- OME Manufacturing and Processing x
- OME Law and Safety Management \*
- Technical Authoring +\*
- Material Science +
- Major Project +\*x



#### LEVEL 4

- Principles of
- Systems Engineering +\*
- Electrical and Electronic Principles +\*
- Physics 1 (OME) +\*
- Mathematics +\*
- Signals and Systems +\*
- Signals and Systems
  Study Skills +\*

#### LEVEL 5

- Computer Aided Engineering \*
- Digital Signal Processing and Communications +\*
- Electromagnetic Radiation +\*
- Principles of OME +\*
- Instrumentation and Control +\*
- Research Methods +\*
- Safety and Hazard Assessment +\*
- Advanced Chemistry of OME +\*
- Advanced Physics of OME +\*

#### LEVEL 6

- Systems Engineering \*
- Remote Sensing and Imaging +\*
- Scientific Principles
   of OME Design +\*
- OME Breakdown and Disposal +
- OME Test and Evaluation \*
- Material Science +
- Major Project +\*

#### BREAKDOWN AND DISPOSAL +

In addition to the core themes, the Breakdown and Disposal Professional will focus on Materials Science and OME Breakdown and Disposal.

The Breakdown and Disposal Professional could typically be employed in these roles within the sector: Breakdown Engineer, Disposal Officer, Decontamination Officer, Project Engineer.

#### **TEST AND EVALUATION \***

In addition to the core themes, the Test and Evaluation Professional will focus on Systems Engineering and OME Test and Evaluation.

The Test and Evaluation Professional could typically be employed in these roles within the sector: Trial Conducting/Firing Officer, Range Manager, T rial Manager/Engineer, Test and Evaluation Instrumentation Scientist, Range Safety Officer, Facility Manager.





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