

# NAFC Marine Centre UHI & Shetland College UHI Economic Impact Assessment

A final report to UHI  
25<sup>th</sup> September 2020



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# 1.

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## Introduction

This report presents an assessment of the combined economic impact of NAFC Marine Centre UHI and Shetland College UHI in 2019.

The analysis is based on data provided to BiGGAR Economics by NAFC Marine Centre UHI and Shetland College UHI in Spring 2020, together with an interview with College Principals, Mr Willie Shannon (NAFC Marine Centre UHI) and Professor Jane Lewis (Shetland College UHI) in June 2020.

### 1.1 Background

Both Shetland College UHI and the NAFC Marine Centre UHI are partners of the University of the Highlands and Islands (UHI).

Based on a water-front site in Scalloway, the NAFC Marine Centre UHI provides a range of services relating to the maritime industries, including training and education, research and development, and consultancy and advisory services.

Shetland College UHI is located in Lerwick and delivers training, education and research in a wide range of disciplines, in addition to operating several learning centres throughout the islands.

Both education providers were created to enable access to tertiary education and training to the local people of Shetland without them having to leave the islands. This is increasingly important as a way of continuing to retain and attract young people to live and work in Shetland.

A merger is progressing between NAFC Marine Centre UHI, Shetland College UHI and Train Shetland (a provider of vocational workplace training in Shetland), to create one single tertiary education, training and research provider for Shetland. Although full integration has not yet been implemented, a collaborative approach to partial integration has been pursued to maximise efficiency and bring access to tertiary education in Shetland.

As part of this collaboration, the organisations have set six goals that align with the objectives of Shetland Island Council:

- **Respond to the needs of Shetland** – through meaningful engagement with stakeholders, partners and local people, widening access, delivering workplace qualifications and offering a modern curriculum;
- **Deliver high quality learning experiences and successful outcomes for all learners** – targeted support for learners from all backgrounds, supporting employability skills, raising aspirations, offering innovative teaching, strengthening the student voice, and increasing the range of UHI courses available to learners in Shetland;
- **Carry out high quality research** – supporting academic and commercial research relevant to Shetland on its environment, history, culture and industries, maintaining existing research centres, securing external funding, developing collaborative partnerships with other institutes and organisations, and integrating research and teaching;



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- **Provide high quality governance, leadership and management structures** – establishing a joint Senior Management Team and creating and retaining a well-supported and valued workforce;
  - **Grow the business** – building on the positive local and national reputation of the organisations, identifying and developing new markets and engaging with the local community; and
  - **Build sustainability** – long-term financial planning, maintaining and develop the estates to give high-quality facilities.

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**Vision: “NAFC Marine Centre UHI, Shetland College UHI and Train Shetland will work together to help build the future of Shetland through education, training and research.”**

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## 1.2 Reference Year and Geography

Our analysis is intended to measure the impact created by the UHI and its academic partners over a given timeframe, in this case it is 2018/19, the most recently completed academic year for which data are available. Throughout the report this has been referred to as 2019. Graduate data relate to students who graduated in 2019.

Where the term Highlands and Islands is used in this report, it refers to the seven local authorities where UHI has an academic partner, namely, Argyll & Bute, Eilean Siar, Highland, Moray, Orkney Islands, Perth & Kinross and Shetland Islands.

## 1.3 Measurement and Method

The economic impacts are assessed in terms of two commonly used measures:

- Gross Value Added (GVA), which is a measure of economic output; and
- jobs.

GVA impacts are reported to nearest whole £ million and jobs are reported to the nearest 100, or nearest 10 depending on the scale of impacts.

A detailed description of the metrics and the methods used to calculate impacts is provided in the Methodological Appendix at the end of the main UHI report.

## 1.4 Report Structure

The remainder of this report is structured as follows:

- Section 2 introduces NAFC Marine Centre UHI and Shetland College UHI’s quantitative economic impacts, which result from supporting students, delivering research, employing staff and running services; and
- Section 3 reflects on the wider benefits of the colleges, which are the result of research and commercialisation activity, support for the labour market, and links with industry and communities.



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## 2.

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# Economic Impacts

This section presents the combined economic impact generated by NAFC Marine Centre UHI and Shetland College UHI.

Its impacts are described according to the themes set out in the UHI's strategic plan:

- supporting students;
- focused research; and
- a university for all the region.

The summary tables at the end of this section show the estimated total economic contribution made by the academic partners. This should be read alongside the wider benefits supported by the organisations which are describes in section 3.

A full description of the methodology used to estimate these impacts is contained in an Appendix to the UHI's main report.

## 2.1 Supporting Students

Engaging in education brings an opportunity for people to enhance their earning potential over the course of their working lives. The sub-section below quantifies the lifetime productivity benefits associated with the qualifications awarded to students at NAFC Marine Centre UHI and Shetland College UHI.

Combined, the institutions have a total student body of 2,850 people across their further and higher education courses. The curriculum offering for students is at the heart of the colleges and they aim to meet the needs and expectations of a diverse student body as well as the requirements of the local community. This approach facilitates greater access to a range of courses that offer pathways through tertiary education, delivering qualifications across all 12 SCQF levels. For all students, especially those living in communities where tertiary education was previously limited or non-existent, this represents a step change in the local education offering.

In 2018/19, NAFC Marine Centre UHI and Shetland College UHI had 1,190 qualifiers across all SCQF levels. Where students achieved more than one award, the productivity premium was applied to the highest level of award received by each qualifier to avoid double counting.

The table below shows the highest qualification achieved by students across the two colleges in 2018/19. Qualifying undergraduates were assumed to have achieved Level 10 on the SCQF scale, which assumes they have completed an honours qualification.



**Table 2-1 Qualifiers from Shetland College UHI and NAFC Marine Centre UHI by SCQF Level, 2019**

SCQF	Number of Qualifiers	Examples of Awards Included
Level 1	10	National 1 Awards
Level 2	10	National 2 Awards, National Certificate, National Progression Award
Level 3	10	National 3 Awards, Skills for Work National 3, National Certificate, National Progression Award
Level 4	250	National 4, Skills for Work National 4, National Certificate, National Progression Award, SVQ 1
Level 5	330	National 5 Awards, Skills for Work National 5, Modern Apprenticeships, National Certificate, National Progression Award, SVQ 2
Level 6	440	Higher Awards, Skills for Work Higher, National Certificate, National Progression Award, Foundation Apprenticeships, Professional Development Award, SVQ 3
Level 7	90	Advanced Higher Awards, Scottish Baccalaureate, Modern Apprenticeships, HNC, Professional Development Award, SVQ 3
Level 8	10	Diploma of Higher Education, Technical Apprenticeship, HND, Advanced Diploma, Professional Development Award, SVQ 4
Level 9	30	Bachelors/ Ordinary Degree, Graduate Diploma, Technical Apprenticeship, Professional Development Award, SVQ 4
Level 10	10	Honours Degree, Graduate Diploma, Graduate Certificate, Graduate Apprenticeships, Professional Development Award
Level 11	10	Masters' Degree, Post Graduate Diploma, Professional Apprenticeship, Professional Development Award, Graduate Apprenticeship, SVQ 5
Level 12	-	Doctoral Degree, Professional Apprenticeship, Professional Development Award
<b>Total</b>	<b>1,150</b>	

Source: [SCQF](#) (2020); BiGGAR Economics Analysis of Data from UHI

The analysis considers the productivity impacts associated with qualifications at Level 4 and above. Three different methodologies have been used to suit available data on earnings premia associated with different levels of education. The groupings used and a brief description of the methodology applied in each case is described below. A full description of the methodologies used is contained in the methodological appendix in the main UHI report.

### 2.1.1 Qualifiers at SCQF Levels 4 to 6

SCQF Levels 4 to 6 represent qualifications gained in the senior phase of formal education (typically, ages 16-19) and in the initial stages of employment up to National Certificate and SVQ3 level. Foundation Apprenticeships are included as a



Level 6 qualification. Based on the data received from UHI, it was estimated that 1,020 people received Levels 4 to 6 qualifications at Shetland College UHI and NAFC Marine Centre UHI in 2018/19.

The methodology applied uses data from a study for the Department for Business Innovation and Skills<sup>1</sup> that measured the lifetime productivity impacts realised in England from achieving qualifications that are equivalent to SCQF Levels 4 to 6 in Scotland. The resulting productivity premium applied to qualifiers at these levels is shown in Table 2-2. The economic impact associated with each study area was estimated based on qualifiers' term-time address.

**Table 2-2 Earnings Premium Assumptions, SCQF Levels 4 to 6**

RQF Level	Equivalent SCQF Level	Productivity Premium
Level 1	Level 4	£8,667
Level 2	Level 5	£22,444
Level 3	Level 6	£29,444

Source: BIS (2011), Measuring the Economic Impact of Further Education and BiGGAR Economics Analysis

### 2.1.2 Qualifiers at SCQF Levels 7 and 8

SCQF Levels 7 and 8 represent higher education, modern apprenticeships, some professional development awards, SVQ Level 3/4, HNCs and HNDs. Based on the data received from UHI and its academic partners, it was estimated that 100 people received qualifications at Levels 7 and 8 from Shetland College UHI and NAFC Marine Centre UHI in 2018/19.

To estimate the impact for qualifiers at this level, the analysis relied on a study by London Economics on the returns from RQF Level 4 and 5 qualifications for STEM and non-STEM subjects<sup>2</sup>. Based on European Commission guidance, these correspond with SCQF Levels 7 and 8 in Scotland. The study found that the premium realised was different for STEM and non-STEM subjects and also for full-time and part-time qualifiers. This is because many part-time students undertake courses at a later stage in their working lives and have less time in which to realise the benefits.

The premiums applied are shown in Table 2-3. The appropriate rate of return was applied to UHI qualifiers according to courses they graduated from and the mode of study. Impacts were allocated to each area according to where students lived.

**Table 2-3 Earnings Premium Assumptions, SCQF Levels 7 and 8**

Study Mode	STEM Subjects	Non-STEM Subjects
Full-time	£78,500	£28,500
Part-time	£45,200	£13,500

Source: London Economics (2017), Assessing the economic returns to Level 4 and 5 STEM-based qualifications

### 2.1.3 Qualifiers at SCQF Levels 9 to 12

SCQF Levels 9-12 represents higher education awards, Bachelors' degrees, Masters' degrees, PhDs and other equivalent qualifications such as Professional Development Awards. Based on the data received from UHI and its academic

<sup>1</sup> BIS (2011), Measuring the Economic Impact of Further Education and BiGGAR Economics Analysis

<sup>2</sup> London Economics (2017), Assessing the economic returns to Level 4 and 5 STEM-based qualifications.



partners, it was estimated that 40 awards were made by Shetland College UHI and NAFC Marine Centre UHI at Levels 9 to 12 in 2018/19.

The approach towards estimating the productivity premium associated with higher education graduates is based on research carried out by the Department for Business Innovation and Skills (BIS)<sup>3</sup>. This considers the lifetime earnings premium accruing to a graduate compared with others whose highest formal qualification is an A-level or equivalent qualification. This study also gives a breakdown of graduate premia by subject studied and highlights the considerable variation in the returns from different degree subjects. Their research implies that the average graduate premium for all first-degree qualifiers is estimated to be £108,100 over their working lives. The study also estimates the returns from postgraduate and research degrees.

The total productivity impact associated with the students who achieved Level 9 to 12 qualifications was estimated by multiplying the returns associated with each degree type and subject by the number of graduates who qualified in that subject and degree type in 2019.

To estimate the economic impact generated in each study area, a distinction was made between UK qualifiers and non-UK qualifiers, as graduates from outside the UK are less likely to remain in the UK after achieving their degrees. Based on the Destination of Leavers from Higher Education Survey<sup>4</sup>, it is estimated that around 84% of graduates from Scottish institutions remain in Scotland on completion of their course. The graduate premium impact for UK-domiciled qualifiers in the Highlands and Islands was then estimated based on data provided by UHI for students' postcodes. Based on research from BIS, it is further assumed that only 20% of non-UK qualifiers remain in the UK following graduation. The total graduate premium across the Highlands and Islands and Scotland was then estimated by summing up these impacts.

#### 2.1.4 Summary Productivity Impacts

It was estimated that the productivity impact associated with students receiving awards from Shetland College UHI and NAFC Marine Centre UHI in 2019 was £26 million GVA in the Shetland Islands and £28 million GVA across Scotland. A breakdown by qualification level is shown in Table 2-4.

**Table 2-4 Earnings Premium by Level of Qualification – Shetland College UHI & NAFC Marine Centre UHI**

	GVA (£ million)	
	Shetland Islands	Scotland
SCQF Levels 4-6 (Further Education)	22	23
SCQF Levels 7-8 (Higher Education)	4	4
SCQF Levels 9-12 (Higher Education)	<1	2
<b>Total</b>	<b>26</b>	<b>28</b>

Source: BiGGAR Economics Analysis (Note, figures may not sum due to rounding)

<sup>3</sup> Department for Business Innovation & Skills (BIS) (2011), The Returns to Higher Education Qualifications.

<sup>4</sup> Higher Education Statistics Agency (HESA) (2018), Destination of Leavers from Higher Education 2016/17.





## 2.2 Focused Research

The growing slate of research and knowledge exchange activity at UHI and its academic partners differentiates it as a University and supports its original purpose of creating a transformational impact on the economy and communities of the Highlands and Islands.

Shetland College UHI and NAFC Marine Centre UHI draw a significant amount of income from research. At NAFC Marine Centre UHI this focuses on the maritime industry and also includes survey and consultancy contracts offered through its Marine Consultancy Services. It also offers a range of equipment and facilities for hire to external companies.

At Shetland College UHI this includes its archaeological research into the Islands' prehistoric landscape and also the creative industries research carried out through the Centre for Rural Creativity which offers a focal point for knowledge exchange.

As a result of their combined research income, a portion of the core impact of Shetland College UHI and NAFC Marine Centre UHI can be attributed to focused research.

In addition, data provided suggests that further impacts can be quantified for other knowledge exchange activity at Shetland College UHI and NAFC Marine Centre UHI, such as contract research and consultancy that has been brought into the colleges.

The combined quantifiable research and knowledge exchange activity at Shetland College UHI and NAFC Marine Centre UHI is estimated to generate £5 million GVA and support 140 jobs in the Shetland Islands in 2019.

**Table 2-5 Quantifiable Research & Knowledge Exchange Activity Impact**

	GVA (£ million)	
	Shetland Islands	Scotland
Research Impact	3.6	4.5
Knowledge Exchange	1.6	2.4
<b>Total</b>	<b>5.2</b>	<b>7.0</b>
	Employment	
Research Impact	140	170
Knowledge Exchange	<10	10
<b>Total</b>	<b>140</b>	<b>170</b>

Source: BiGGAR Economics Analysis (Note, figures may not sum due to rounding)

## 2.3 A University for All of the Region

There are several aspects to this impact that arise from the Colleges' operational activities as employers that spend money on staff, capital projects, goods and services and attract a student community that spends in the local economy. Other impacts are created through the visitors they bring to the area and through business engagement. These are collectively reported as operational impacts in the summary table at the end of this chapter



### 2.3.1 Core Impact

The core impact of an organisation is the economic contribution it makes through its main activities. The core impacts associated with the colleges include:

- **direct impact** –the value that it adds to the economy through its own operations which can be estimated as the difference between total income and total supply spending. In 2018/19, the colleges had a combined total income of £6 million and spent £2 million on supplies;
- **supply spending impact** – which measures the contribution made throughout the organisation’s supply chain by its expenditure on goods and services. This amounted to £2 million in 2018/19;
- **staff spending impact** –staff at the College create an impact on the economy by spending their wages and salaries in the areas where they live. In 2018/19 staff at NAFC Marine Centre UHI and Shetland College UHI received around £5 million in salaries and wages; and
- **capital spending impact** - this contributes to economic activity by supporting businesses in the construction sector and the amount spent can fluctuate from year to year. Based on spending over the past five years and taking future plans into account for the next five years, it is estimated that together the colleges spend around £170,000 per year on capital investment.

Summing up the economic impact generated by core activities, it is estimated that, in 2018/19, NAFC Marine Centre UHI and Shetland College UHI supported £5 million GVA and 200 jobs in the Shetland Islands. A summary of impact by source is provided in Table 2-6.

**Table 2-6 Core Impact - NAFC Marine Centre UHI and Shetland College UHI**

	GVA (£ million)	
	Shetland Islands	Scotland
Direct Impact	4	4
Supply Spending Impact	1	1
Staff Spending Impact	1	1
Capital Spending Impact	<1	<1
<b>Total</b>	<b>5</b>	<b>7</b>
Employment		
Direct Impact	170	170
Supply Spending Impact	20	40
Staff Spending Impact	20	30
Capital Spending Impact	<10	<10
<b>Total</b>	<b>200</b>	<b>240</b>

Source: BiGGAR Economics Analysis (Note, figures may not sum due to rounding)

### 2.3.2 Student Community

In 2018/19, there were 200 full-time students enrolled at the College on all further and higher education courses. The student community at the College creates an economic contribution in four ways: through their spending patterns, through working part-time in their local communities, through placements and through voluntary work. Each of these impacts are explained below:



- **Students’ spending** – students’ spending habits during term time supports turnover and employment in the businesses where purchases are made. It is estimated based on where they live and on their spending patterns which are informed by the “Student Income and Expenditure Survey 2014 to 2015”<sup>5</sup> which is published by the Department for Education (DfE). Based on students’ term-time domicile, around 93% of students live in the Shetland Islands and the remainder live elsewhere in Scotland. In 2019, their combined expenditure on living costs was estimated at £2 million.
- **Students’ part-time work** - students also make an economic contribution by working part-time during their studies, most commonly in the hospitality and retail sectors. Based on national data it was estimated that around 33% of full-time students worked during term time<sup>6</sup> for around 14 hours each week.
- **Students’ placements** - students at the College contribute to local employment by carrying out work placements. As well as giving the students valuable experience, they also support the activities of businesses and organisations where they are placed. Data provided by the College indicate that around 10 students took part in placements in 2018/19 in teaching and in childhood practice.
- **Students’ volunteering** – this makes an economic contribution to a range of organisations and helps to make services possible that may not happen otherwise. Based on the evidence from a study by the National Union of Students<sup>7</sup> (NUS), it was estimated that around 31% of students take part in volunteering activities and that each volunteer spends around 44 hours volunteering per year.

By summing the economic impacts generated by the Colleges’ student community, it is estimated that they contributed £1 million GVA and supported 40 jobs in the Shetland Islands in 2018/19.

**Table 2-7 Student Community Impact - NAFC Marine Centre UHI and Shetland College UHI**

	GVA (£ million)	
	Shetland Islands	Scotland
<b>Total</b>	<b>1</b>	<b>2</b>
	Employment	
<b>Total</b>	<b>40</b>	<b>50</b>

Source: BiGGAR Economics Analysis (Note, figures may not sum due to rounding)

### 2.3.3 Tourism from Conferences and Events

The Colleges attract visitors to their students and staff and through organising conferences, events and graduations. This creates short-term tourist spending impacts in the local economy. It is estimated that, in 2018/19, the economic impact associated with tourism-related activities at NAFC Marine Centre UHI and Shetland College UHI was £67,000 GVA and two jobs in the Shetland Islands.

## 2.4 Summary

NAFC Marine Centre UHI and Shetland College UHI are an essential part of the community’s fabric. It is estimated that together they generated an economic

<sup>5</sup> Department for Education (2018), Student Income and Expenditure Survey 2014 to 2015.

<sup>6</sup> Office for National Statistics (2019), Labour Force Survey.

<sup>7</sup> National Union of Students Connect (2014), The Student Volunteering Landscape.



contribution that was worth £34 million GVA and 250 jobs throughout the Shetland Islands is 2018/19.

**Table 2-8 Total Impact - NAFC Marine Centre UHI and Shetland College UHI**

	GVA (£ million)	
	Shetland Islands	Scotland
Student Lifetime Earnings Impact	26	28
Research Impact*	5	7
Operational Impact	7	8
<b>Total</b>	<b>34</b>	<b>41</b>
	Employment	
Research Impact*	140	170
Operational Impact	240	290
<b>Total</b>	<b>250</b>	<b>300</b>

Source: BiGGAR Economics Analysis \* Part of the research impact has been estimated based on the research income received by the Colleges which is also included as part of their core impact. However, this element has only been counted once in the total impact for the College to avoid double counting. (Note, figures may not sum due to rounding)

On this scale, NAFC Marine Centre UHI and Shetland College UHI jointly represent 4% of total GVA in the Shetland Islands and 2% of employment.

Beyond their economic contribution, NAFC Marine Centre UHI and Shetland College UHI make an important contribution to the social, industrial and cultural fabric of life in the Shetland Islands. These wider impacts are described in the following section.



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## 3.

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# Wider Benefits

In addition to their economic impact, NAFC Marine Centre UHI and Shetland College UHI bring several wider benefits which support the local island community.

There are several ways in which NAFC Marine Centre UHI and Shetland College UHI create economic and wider benefits for the communities they serve. Routes to impact include research and commercialisation activity, support for the labour market through skills and support for industry and the community.

### 3.1 Research and Commercialisation

Shetland College UHI and NAFC Marine Centre UHI are committed to providing continuous research opportunities for both their students and staff.

#### 3.1.1 Marine Research

The NAFC Marine Centre UHI carries out a range of applied research and development projects in subjects relevant to the fishing and aquaculture industries, marine spatial planning and the marine environment in general.

The Centre collaborates closely with maritime industries and other interested parties to answer key questions, and develop knowledge, technology or best practice, through applied research and development projects. These projects take advantage of the Centre's location, facilities, expertise and close links with maritime industries. This includes its shellfish stock assessment / research programme (in support of the local shellfish management system), marine spatial planning work, in support of the local Marine spatial plan, and fisheries policy work in support of the fishing industry.

The Centre can also carry out research, survey and other services on a contract or consultancy basis.

#### 3.1.2 Archaeological Research

Being located in the Shetland islands provides research opportunities for staff at Shetland College UHI to study its prehistoric landscapes which are among the best-preserved in the country.

Recent research projects include investigating the relationship between the Neolithic tomb, settlement and enclosure, and the natural setting in the North of mainland Shetland.

#### 3.1.3 Centre for Rural Creativity

The Centre for Rural Creativity was established in 2015 with the support of Shetland Islands Council, Highlands and Islands Enterprise and Creative Scotland. It supports research and knowledge exchange in the creative industries in remote and rural areas and is based in Shetland College UHI. In addition to undertaking interdisciplinary research the Centre acts as a focal point for UHI's teaching, knowledge exchange and engagement with the creative industries.



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### 3.1.4 Consultancy Services and Commercial Hire

NAFC Marine Centre UHI undertakes many research and development projects in the maritime industry, including survey and consultancy contracts. Its Marine Consultancy Services use multidisciplinary teams to undertake client projects and the work involved typically includes: biosecurity; environmental assessments; data analysis; mapping and modelling; and marine surveys.

NAFC Marine Centre UHI has access to a wide range of specialist equipment and facilities to operate and carry out research and projects. It is possible for external companies to hire out laboratories, meeting rooms and video conference facilities, teaching and lecture rooms, workshops, survey vessels and equipment such as fishing gear and underwater video systems.

At Shetland College UHI, the Textile Facilitation Unit within the Creative Industries Centre can also be accessed by businesses to enable new initiatives to progress and for research and development purposes. Equipped with state-of-the-art knitting systems and a range of finishing equipment, the facility is run by highly qualified industrial textile technicians who can assist students and clients through all stages of design, development and production of knitted textiles, including garments.

## 3.2 Local Labour Market

As the key providers of vocational and higher education for the Shetland Islands, NAFC Marine Centre UHI and Shetland College UHI are fundamentally important to the island's local labour market, with specialist areas that support a wider regional labour market.

NAFC Marine Centre UHI and Shetland College UHI provide local islanders with access to tertiary education that may not otherwise be available to them without leaving the island. They also succeed in raising the education and skill level of the local workforce through both students and collaboration with the local community.

NAFC Marine Centre UHI teaches the skills needed in the maritime industries such as the merchant navy, fishing, aquaculture, shore-based engineering and recreational sailors. Maritime courses range from the three-year Merchant Navy Cadet Programme to short courses and cover both 'deck' (navigation etc) and marine engineering topics, as well as other subjects required by seafarers. Many of its courses for the aquaculture industry can be delivered at an employers' site and an increasing number are available online for flexible self-study at times and places to suit the student. These include aquaculture management CPD, fish farm containment, fish vaccination, fish welfare and water quality awareness.

Its extensive range of courses in engineering are designed for both onshore workers and for those who wish to work in marine engineering and covers general, mechanical and electrical engineering elements.

Shetland College provides skills which are fundamental to the well-being of Shetland's communities, such as health and social care, construction, business and hospitality, computing, creative industries and the humanities. Labour supply in these areas are critical to the social and economic health of the islands and maintaining employment in these sectors. For example:

- the health and care section is the largest in Shetland College UHI, offering courses in care, early years, child and youth studies, access to apply for nursing, social work, psychology and sociology;



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- the business and hospitality section offers work-based learning including professional cookery courses for chefs wanting to build their skills;
  - the computing section offers a range of courses from introductory to degree level and Microsoft® Professional status, in subjects such as computing, computer science and interactive media;
  - the construction section offers courses in construction crafts, AutoCAD, carpentry and joinery and construction management;
  - the creative industries section offers a significant slate of courses in textiles, art and design, fine art, music and film;
  - the humanities courses offered by the cultural studies section draws on Shetland's rich environmental, cultural and social surroundings and offers a range of bachelors' and MLitt degree courses; and
  - the community learning section offers a range of essential skills classes for those seeking to progress in education or employment.

The array of opportunities this provides in Shetland helps young people of all abilities to enter the labour market, preventing high levels of outward migration of young people, reducing unemployment and supporting businesses by providing a talented stream of potential employees.

Shetland College UHI and NAFC Marine Centre UHI work in close collaboration with a wide range of industry partners and the local community, providing students with work experience placements at local businesses and opportunities to join the labour force. Both staff and students have historically provided valuable services to businesses across a range of services and placements from market research to corporate catering.

### 3.2.1 Health and Social Care

The Health and Care department at Shetland College UHI has strong partnership arrangements with the care and early years' sector. Shetland College provides SVQ programmes to support over 120 candidates each year to meet their Scottish Social Service Council (SSSC) registration requirements and also works in partnership with SIC Housing and Education, NHS Shetland, The Childcare Partnership and Train Shetland to enable their staff to gain essential qualifications.

In collaboration with NHS Shetland, Shetland College UHI offers an Access to Nursing course, providing students with work placements before going onto further study elsewhere.

A number of public and private health and social work organisations also support the courses provided by the Health and Care department by enabling over 60 quality work experience placements each year for the Introduction to Care, Access to Apply for Social Work, National Certificate Early Education and Childcare, and the HNC in Early Education and Childcare courses.

### 3.2.2 NAFC Marine Centre UHI

NAFC Marine Centre UHI is situated in a highly productive marine environment and as such, the organisation has strong relationships with a wide range of industry partners. A unique aspect of NAFC Marine Centre UHI is its industry-science partnerships. These partnerships highlight NAFC Marine Centre UHI's belief that industry experience is more important than traditional academic research.

To suit an identified need for flexible learning in the aquaculture sector, NAFC Marine Centre UHI recently launched an online fish welfare course to train users in global welfare standards.



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### 3.2.3 IT Projects

A key initiative of all levels of study at Shetland College UHI is to develop students' practical IT skills through a series of individual and group projects. An aspiration of this development is for students to collaborate with local organisations to assist on projects that they may not otherwise have the facilities to carry out themselves.

### 3.2.4 Schools

Shetland College UHI also works with secondary aged pupils through their vocational pathways programme. Pupils in their third and fourth year of secondary school are able to take part in college courses once every 2 weeks for a period of 1 or 2 years to get an experience of college life and gain practical employment skills linked to specific careers. NAFC Marine Centre UHI also hosts courses on this pathway in aquaculture, engineering and maritime skills.

Foundation apprenticeships are also available in collaboration with Shetland Islands' Schools Service and NAFC Marine Centre UHI and are available in: business skills, health and social care, civil engineering, construction studies and engineering. This programme of study allows school aged pupils to receive additional qualifications and work experience as a subject choice at school. Pupils are matched to a specific employer and have a workplace mentor to guide them through the apprenticeship.





## Online Fish Welfare Course

A new aquaculture course developed by NAFC Marine Centre UHI is training staff for the industry in the UK and beyond.

The new Fish Welfare training course was developed by NAFC Marine Centre UHI's aquaculture training staff at the request of the aquaculture industry to help them maintain high standards of fish welfare and meet the training and compliance requirements of various certification schemes and codes of practice, including the RSPCA welfare standards for farmed Atlantic salmon and GLOBALG.A.P.

The course is relevant to all forms of finfish aquaculture and covers a range of topics relevant to the welfare and product quality of farmed fish, including legislation and codes of practice, water quality, husbandry, fish handling and harvesting, and diseases and treatments (including sea lice).

Continuous engagement with the aquaculture industry has ensured that the course remains relevant to current operations and the changing regulatory and certification requirements that the industry faces. The course has been adapted to meet the needs of staff working in different sectors of the industry, including hatcheries, marine and freshwater on-growing sites, and live fish transport. It also supports candidates from the aquaponics sector, where fish and plants are grown together in the same system.

Online delivery allows NAFC Marine Centre UHI to overcome geographical and other barriers to training and many who sign up for the course work irregular hours in remote areas and would find it difficult to attend normal college classes. The course can be studied on smartphones or other internet enabled device at times and places that suits the student. It also allows training be delivered to students outside the traditional catchment area and the number of enrolments from throughout Europe and across the Atlantic has been growing.

The Fish Welfare course is also available as a traditional taught class which NAFC Marine Centre UHI's aquaculture training staff have delivered to hundreds more students throughout Scotland.

A number of other NAFC Marine Centre UHI aquaculture training courses are also available online. All are delivered via the University of the Highlands and Islands' virtual learning environment, Blackboard Learn+.

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