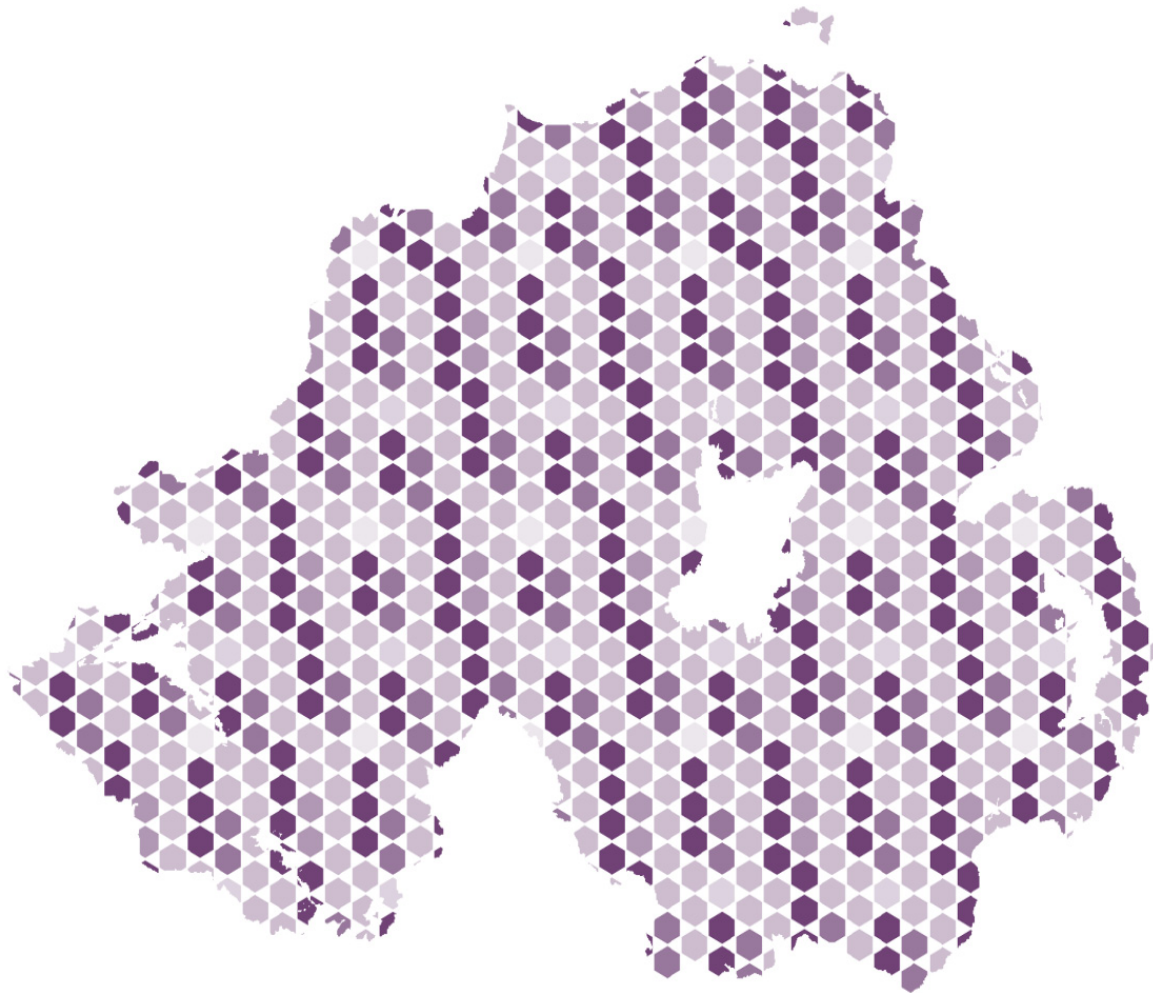


# FURTHER EDUCATION INSPECTION



Education and Training  
Inspectorate

Provision for the Priority Skills  
Areas at Level 3 Northern  
Regional College

Report of an Inspection  
in May 2010

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In this report, proportions may be described as percentages, common fractions and in more general quantitative terms. Where more general terms are used, they should be interpreted as follows:

Almost/nearly all	-	more than 90%
Most	-	75%-90%
A majority	-	50%-74%
A significant minority	-	30%-49%
A minority	-	10%-29%
Very few/a small number	-	less than 10%

In assessing the various features of the provision, Inspectors relate their evaluations to six descriptors as set out below:

DESCRIPTOR
Outstanding
Very Good
Good
Satisfactory
Inadequate
Unsatisfactory

## 1. INTRODUCTION

1.1 This report summarises the findings of an inspection of the college's provision at level 3 in the National Qualifications Framework in the Priority Skill Areas of computing and information and communication technology (ICT), construction and the built environment (construction), electrical and electronic engineering, manufacturing and mechanical engineering. The college's provision of Priority Skill Area programmes funded by the Department for Employment and Learning (the Department) under the Apprenticeships Northern Ireland programme was not inspected. The inspection was undertaken by the Education and Training Inspectorate (Inspectorate) during the third term of the 2009/10 academic year.

1.2 In the Autumn term of 2010, the Inspectorate will publish summary reports for each Priority Skill Area across the further education sector. These reports will evaluate:

- the quality and effectiveness of the curriculum for each Priority Skill Area;
- the strategic planning for the provision;
- the effectiveness of employer engagement and links with key stakeholders;
- the quality of the provision for learning; and
- the standards of students' work.

The reports will identify best practice to help the further education sector implement strategies to meet the needs of students and the economy. They will also inform the Department on the impact of its current policies regarding level 3 provision in these Priority Skill Areas.

1.3 A total of 58 lessons were observed during the inspection visit and members of the inspection team interviewed groups of students in each of the Priority Skill Areas. The inspection team met members of the senior management team, relevant faculty heads, heads of school, course teams, and managers with cross- college responsibilities. The inspection team reviewed quality assurance documentation and self-evaluation reports, curriculum development plans and minutes of course team meetings.

## **2. SUMMARY OF MAIN FINDINGS**

2.1 The college has an extensive provision of full-time level 3 courses in all of the professional and technical areas inspected. The college serves a wide and dispersed geographical area, and it is to the credit of the management team, that it has maintained most of its provision in those campuses that provided these courses in the former three legacy colleges. It is the only college in Northern Ireland that provides level 3 engineering courses in four of its campuses. Across all of the professional and technical areas inspected, enrolment levels on full-time courses are strong. In engineering, for example, 132 students are enrolled on the Edexcel National Diploma mechanical and electrical and electronic engineering (combined) course. With the exception of full-time courses in construction in Magherafelt, there is no evidence of gaps in provision across the college. Most of the full-time electrical and electronic engineering provision is centred around manufacturing engineering. Although electrical and electronic engineering is an identified priority skill area in its own right, the high level development plan for the school of Engineering and Science, gives insufficient coverage of the need to develop the college's

provision in this area. Key connections between electrical and electronic engineering, with programmes, and courses in computing and ICT, and construction are underdeveloped across the college. The range of part-time courses is variable. The college offers a very good provision of part-time courses in manufacturing and mechanical engineering. It provides eight part-time programmes including technician and craft day release courses in engineering, maintenance, and fabrication and welding. In addition, the college offers an extensive range of bespoke specialist up-skilling training for industry. The college provides a satisfactory range of part-time courses in electrical and electronic engineering. These include a suite of National Certificates in electrical and electronic engineering, a bridging course for electricians wishing to progress to higher education, and a wide range of electrical installation up-skilling short courses. The range of part-time courses and bespoke courses for industry in computing and ICT, is mostly underdeveloped. In construction, there are gaps in the college's provision of part-time level 3 courses; particularly National Certificates in construction, and civil engineering, as well as a lack of bridging courses for craft workers wishing to progress to higher education.

2.2 With the exception of construction, the academic achievements of students on entry in most courses are better than in the other regional colleges. The college has recently introduced more stringent entry criteria for courses that are oversubscribed, with course teams looking for at least a minimum of four General Certificate of Secondary Education (GCSE) at grade C or better. Although most students are interviewed prior to enrolment, there is a need to ensure that students with the relevant aptitudes and interests, who just fail to meet the entry criteria, are offered a vocationally relevant programme to meet their needs, for example, a one-year combined first certificate and national award programme. The college has a good range of level 2 courses for students with weak academic qualifications to facilitate their progression onto level 3 courses in these Priority Skill Areas. The progression of these students is well-tracked by the college. The college offers a good

range of higher education courses in each professional and technical area; most of this is in the Farm Lodge campus in Ballymena.

2.3 The curriculum in most of the professional and technical areas is well-designed to meet the needs of students wishing to progress to employment and higher education. In nearly all of the full-time courses, students for example, are offered optional units in mathematics to facilitate progression to university courses. Most full-time courses are well-designed to ensure that those students who successfully complete their first year can attain the National Award qualification. In manufacturing engineering, full-time students follow a good range of relevant practical and technical units, including, computer aided design and manufacture, programmable logic devices, robotics, and welding practice and technology. Although full-time students in engineering can develop their practical skills through workshop activities, the timetabled hours are too limited to enable them to develop practical manufacturing skills to support fully their project work. The curriculum entitlement for full-time construction students does not include adequate time for them to take part in integrated projects, which link two or more units together, to develop further their team-working and presentation skills. In computing and ICT, the planning and design of the full-time Games Development course in Ballymoney is outstanding; the course team has developed a paperless curriculum and assessment model. Overall in most of the programmes, there is little provision of additional studies outside the students' main programme to enhance their employability skills.

2.4 Those full-time students without a grade C pass in GCSE English or mathematics have appropriate opportunities to develop their literacy and numeracy skills through their essential skills lessons, and there are good opportunities to develop further these skills in their professional and technical units. The college is developing new models of delivering essential skills to meet the needs of the students more effectively. It is important that in the

implementation of these new arrangements, adequate support is provided to students throughout the duration of their courses.

2.5 The college offers a wide range of courses to post-primary schools in each professional and technical area, under the Entitlement Framework Support programme at level 2 and level 3. The provision is extensive in construction and in engineering. The provision of level 2 courses has enhanced enrolment levels onto level 3 courses offered in the college.

2.6 Across the professional and technical areas, there are examples of good practice where staff in the college provides support to local and regional employers. These links are particularly strong in engineering, where there are high levels of engagement with employers, Sector Skills Councils, equipment manufacturers and other key stakeholders to develop a curriculum focused on state of the art manufacturing engineering and to support economic development. This has resulted in the development of a wide range of bespoke courses to meet local and regional needs, including technician training for large employers, up-skilling courses in programmable logic control systems, manufacturing and mechatronics. There is evidence of this work enhancing the quality and range of the students' learning experiences in the college. In construction, the college is supporting over 90 businesses through the Department funded Carbon Zero project, though the impact of this on the level 3 curriculum in the college is limited. The levels of economic engagement in the other professional and technical areas are limited.

2.7 The quality of the provision ranges from very good to satisfactory; it is very good in manufacturing and mechanical engineering, and is good in computing and ICT, and electrical and electronic engineering. The quality of the provision in construction is satisfactory, where there are undue variations in the quality of the provision and in teaching and learning approaches across the different campuses.



2.8 Good progress has been made since the formation of the college to develop a shared culture across the different campus locations in each Priority Skill Area. Curriculum managers have complex and challenging roles in ensuring there is consistently high quality provision across their areas of responsibility. Heads of school and senior lecturers manage an extensive provision across the different campus locations. There are examples within curricular areas, where course teams are collaborating and sharing resources more effectively across the different campus locations. In manufacturing and mechanical engineering, for example, the lecturers make good use of the college virtual learning environment to develop and share learning resources. Overall, however, the benefits of the merger of the legacy colleges have yet to be realised in terms of leading to significant improvements in curriculum planning and in the sharing of specialist resources across different campus locations.

2.9 The college has a highly skilled team to manage and deliver its extensive range of programmes in manufacturing and mechanical engineering. There are strong levels of collegiality, excellent links with industry, sectoral bodies, and key strategic planning groups for Science, Technology, Engineering and Mathematics (STEM), and international links with other academic institutions. In the other professional and technical areas, there are shortfalls in the deployment of permanent members of staff to manage to teach on some of the programme areas, especially in construction. The construction course team members are stretched fully across a wide range of programmes, including the college's extensive provision with post-primary schools, as well as working across different campuses. The tutors spend lengthy periods of time travelling between different locations, which adversely affect their work in co-ordinating and teaching National Diploma year groups. In computing and ICT, and construction, long-term absences of lecturing staff in the Newtownabbey campus, have resulted in staff from other campuses, and part-time lecturers covering classes. In construction, although appropriate measures are now in place to help students in

their work, the absences have been disruptive for students and they have fallen behind in a number of vocational units. The college's deployment of specialist staff in computer networking is inadequate, with a key member of staff leaving the college to take up a post in industry.

2.10 A key challenge for the senior management team is to manage its extensive specialist resources and estates across a wide range of campuses. Most of the campuses are dated and some are barely fit for purpose. This has been compounded by the financial constraints under which the college operates. The opening of the new Skills Centre in the Newtownabbey campus will go a long way to enhancing the quality of the college estate as well as promoting the college's provision of STEM courses in the local area. The decant, however, of the building has not been well-managed; the overall appearance of the interior of the Newtownabbey campus is poor. Many of the teaching spaces are untidy, with obsolete furniture and resources cluttering the rooms. The appearance of most of the public spaces in the campus presents a poor image of the college. The communication to staff about the re-deployment and use of specialist rooms and staff work rooms has not been well-managed; there has been insufficient consultation with tutors.

2.11 The quality of specialist resources and equipment vary across the priority skills areas, and across the campuses. The quality of these resources in manufacturing and mechanical engineering is outstanding in the Farm Lodge campus, which has state of the art equipment to support students in their learning. Curriculum managers have been highly successful in obtaining additional funds from industry and from other sponsors to enhance the range and quality of these resources. This prepares the students well to work as technician engineers in advanced design and manufacturing, or to progress to higher education courses in engineering. The planned upgrade of the Newtownabbey campus will improve significantly the level of resources in this campus. More generally, consideration should be given to provide students in Coleraine and Magherafelt more access to the

specialist resources in Farm Lodge. The quality of the range of specialist resources in electronic engineering, however, is poor. For example, electronic manufacturing resources are limited or dated and this is the only college in Northern Ireland which does not offer embedded systems on any of its campuses. These shortfalls result in a poor balance between theory and practical or a limited choice of specialist units. In addition, the existing computer networking and hardware resources are under-utilised by students in computing and ICT, and electronic engineering, and are poorly maintained, particularly in the Newtownabbey campus. In construction, most of the resources in construction are sound but there is an inadequate deployment of specialist science and material laboratories across the college.

2.12 The college has a high commitment to developing robust quality assurance and improvement planning processes; this has been backed up with a significant investment in the college quality improvement unit. This has been well-managed and significant progress has been made in making use of the student voice to aid quality improvement in the college. The overall self-evaluation report produced in advance of the survey is a well-informed assessment of the key strengths and areas for improvement in the college provision; the head of the quality improvement unit is well-informed on the specific strengths and weaknesses of the provision in each of the programme areas. Underneath this however, the quality of the course self-evaluation reports is variable.

2.13 The quality of teaching and learning is good or better in most (75%) of the lessons, and 25% of the lessons are very good or outstanding. The good or better teaching and learning is a feature of the provision in computing and ICT, and mechanical and manufacturing engineering. The quality of teaching and learning is inconsistent in construction; 25% is very good or outstanding and just under 40% of the lessons are satisfactory or inadequate. A small number of newly appointed members of staff need more support in developing their pedagogic skills and confidence.

2.14 The use of information and learning technology in teaching and learning is variable across and within the same professional and technical areas. In construction, the lecturers in Coleraine make effective use of innovative applications to motivate and engage the students in their learning, including effective use of the college virtual learning environment, and flip videos to support project-led learning. In Farm Lodge, the lecturers make very limited use of the virtual learning environment and the interactive whiteboards that are deployed in the rooms; this has an adverse affect on the quality of the students' learning experiences. Good use is made of the virtual learning environment in engineering and in computing and ICT, though there are instances where lecturers make excessive use of the college shared drive facility. In computing and ICT, the quality and range of the available resources are very limited; many of the rooms do not have fixed projectors and very few have interactive whiteboards. The network in Magherafelt is particularly slow and renders much of the information and learning technology unusable.

2.15 The college has deployed three qualified careers officers across the campuses to provide information, advice and guidance to students. Work has commenced in integrating a careers education programme for full-time students as part of their tutorial programmes. In most areas, the students' knowledge and understanding of career pathways and of the world of work, however, is limited in nearly all of the professional and technical areas. The use of work-related learning on full-time courses though site visits, guest speakers, and industry-based project work in nearly all of the professional and technical areas inspected is underdeveloped.

2.16 The college has invested significantly in developing the electronic individual learner plan (eILP) to aid students set targets and review their progress in their work. Although this has been used to produce reports for students, there is little evidence that the full features of the eILP are being used to help students meet their targets; the main focus of the timetabled

tutorial time is to complete assignments. Across the programme areas inspected, course teams have developed a range of online tools to inform students of their progress and to track student achievement; the quality of some of these tools is excellent.

2.17 The standards of work achieved by the students are mostly good. The inspection has identified examples where the skill levels and standards of work are outstanding. In engineering, for example, part-time students apply their technical skills to solve industrially related engineering problems through their project work. Students in construction, develop good computer aided design skills that meet current standards in industry. Most students are encouraged to work at levels beyond the minimum pass criteria in their assignments. In engineering, a significant minority of full-time students are only targeting the minimum pass criteria in their assignments.

2.18 The students attain good standards of work in mathematics in most of the professional and technical areas. In electrical and electronic engineering, most students can select and apply a range of mathematical principles to solve electrical engineering problems including trigonometry, calculus and complex numbers with a minimum of assistance. The standards of the students' work in mathematics and science in manufacturing and mechanical engineering are very good. The standards of the students' oral communication skills are also mostly good, and in the best practice observed, in computing and ICT, students make good use of extended questioning techniques in critiquing both their own work and that of their peers. With the exception of construction, where a majority of students are reticent in their oral responses, most speak confidently about their work. The standards of the students' written work in most areas are mostly good; though a significant minority of students in construction need more support to improve their writing skills, in order to help them to achieve higher grades in their assignment work.

2.19 Outcomes on most programmes are satisfactory or better; most students completing their courses attain their target qualifications. There is evidence of a recent fall in the retention rates for full-time students in construction on the Farm Lodge campus.

### 3. **CONCLUSION**

#### 3.1 OVERALL EVALUATION OF THE QUALITY OF THE PROVISION

In the professional and technical areas inspected, the quality of education provided by the Northern Regional College is good. The college has important strengths in most of its educational and pastoral provision. The inspection has identified areas for improvement which the college has demonstrated the capacity to address. The Inspectorate will monitor the college's progress on the areas for improvement.

#### 3.2 EVALUATION OF THE QUALITY OF THE PROVISION IN EACH PSA

In the professional and technical area of manufacturing and mechanical engineering, the quality of education provided by the Northern Regional College is very good. The college is meeting very effectively the educational and pastoral needs of the learners; and has demonstrated its capacity for sustained self-improvement.

In the professional and technical areas of computing and information and communications technology, and electrical and electronic engineering, the quality of education provided by the Northern Regional College is good. The college has important strengths in most of its educational and pastoral provision. The inspection has identified areas for improvement which the college has demonstrated the capacity to address. The Inspectorate will monitor the college's progress on the areas for improvement.

In the professional and technical area of construction, the quality of education provided by the Northern Regional College is satisfactory; the strengths outweigh areas for improvement in the provision. The inspection has identified areas for improvement in achievements and standards, in learning and teaching, and in leadership and management which need to be addressed if the needs of all the students are to be met more effectively. The Inspectorate will monitor and report on the college's progress in addressing the areas for improvement.

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