



MALET
LAMBERT

THE EMPLOYER LED

Engineering Programme

SUPPORTED BY



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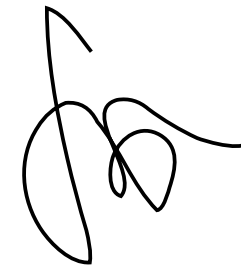
According to the Confederation of British Industry (CBI), school leavers often lack the skills needed to succeed. One in three business leaders is concerned that schools do not do enough to prepare young people for work nor do they give them enough opportunities to boost their CVs to help them stand out when applying for future job roles and apprenticeships.

Here at Malet Lambert, the situation couldn't be more different. With an extensive Gold standard Careers Education Information Advice & Guidance programme and continuous investment in work experience opportunities, we know that the students are getting a really good deal here.

However, we do always strive to do more for our pupils, to give them that competitive edge over others in this city and that is why I have developed two new, innovative careers programmes.

Our Career Development and Employer Led Engineering Programmes will not only give our students the opportunity to develop key employability skills to prepare them for some of the best jobs in the region, but will also allow them to increase their knowledge on the careers that exist locally through industry mentoring, workshops, work experience, careers appointments and trips & visits.

This is certainly going to be a very exciting time for the school, our local employers and of course the pupils on our courses.



Mrs S Barley
Trust Director of Careers & Employability



“Our Employer Led Engineering Programme will help pupils develop key employability skills to prepare them for some of the best jobs in the region.”

Employability Skills

Whether you are planning to go to college, start an apprenticeship or go straight into work after school, the Employer Led programme will equip you with the advanced, high level transferable skills that you need for employment or further study.

The Employer Led programme has been purposely designed to give you flexibility whilst making your career decisions, so whatever you decide to do and whichever route you choose to take, you will stand out thanks to the unique opportunities you'll have to develop the seven key employability skills the CBI have identified as essential for students when first entering the world of work.

By the end of your two years, you'll have a glowing CV with a broad range of work relevant activity that evidences your advanced level employability skills thanks to the links with our many business partners from across a range of different sectors.

The Seven CBI Employability Skills for the successful worker:

1 Self Management

Managing your time effectively, good attendance and punctuality and a professional and positive attitude are all covered in self-management.

With a wide range of employment related activities to manage alongside your full programme of GCSE studies, you'll have plenty of opportunities to demonstrate your ability in this area.

2 Team Work

In the world of work, being a team player and collaborating with others is essential for business success.

We'll continue to develop these with you so you can devise a team plan and recognise the strengths of individuals and respect their contribution in achieving team goals.

3 Business & Customer Awareness

This is about the 'big picture' and understanding the requirements of a successful business.

Accessing professionals from a range of industries will help you in understanding the principles and practices required by business in different sector. It will also help you explore career options and help you decide what you want to do in the future.

4 Problem Solving

We all have to problem solve but, with the support of our business professionals, you'll learn what this means in a business setting.

Learn to apply these skills in the work place and evidence your reasoning and initiative skills and demonstrate you have a logical and systematic approach to developing solutions.

5 Communication & Literacy

An essential that all businesses look for!

We'll make sure that your speaking, listening, reading and writing skills are top notch and that you can adapt them to suit the needs of your audience.

6 Application of Numeracy

You'll need budgeting and financial skills once you enter work.

This employability skill will help you evidence this through the practical application of numeracy skills to solve work-based problems.

7 Application of ICT

All jobs now require a competent grasp of ICT and a willingness to continually develop your skills in line with technological changes.

Here you'll show that you understand the importance of safeguarding, security and IT management as well as awareness of the effective use of social media in the workplace.

Employer Led Engineering Programme



Those pupils looking for a career in engineering can apply for a place on our Employer Led Engineering Programme. This exciting and unique programme will run alongside other GCSE courses and will aim to put employability skills development at the heart of the curriculum so that pupils not only leave us with the best academic qualifications but also the skills and qualities needed to succeed as a high achieving college student, university graduate or higher level apprentice in the future.

This unique programme will allow our budding engineers to;

- Complete a GCSE in Design Engineering (optional)
- Take part in a full Employability Skills Development course with Inspire Ignite and Trans 2 Performance
- Attend engineering master classes at Wilberforce College
- Build a race car with our primary partner Siemens Gamesa
- Take the AQA Technical Certificate
- Complete employability development skills seminars with Barclays
- Go on work place visits and tours
- Enjoy our Industry Mentoring Experience
- Finish a work placement in Y10

The most important aspect of this programme is that pupils are able to switch to our Career Development Programme should their career choices change in the future.

This programme allows our pupils to find out about other industries and meet employers from a variety of job roles.

This means that they will not become “locked” into one particular career choice which will ensure that our pupils access a wider range of opportunities to allow them to make better career choices when they leave us.

DESIGN ENGINEERING

Engineering design is a process used to develop and enhance new products and systems as a response to market opportunities.

This qualification is an opportunity for our pupils to develop a design specification and study the processes involved in designing new engineered products.

They'll use practical skills such as drawing, computer modelling and model making to communicate design ideas.

The qualification will also encourage them to consult with a client and, with its practical focus, will engage them in producing, testing and evaluating a prototype in the form of a model. The course outline is shown below:



Units	Assessment Method
R105: Design briefs, design specifications and user requirements.	Written paper OCR set and marked 1 hour - 60 marks Students answer all questions
R106: Product analysis and research.	Centre-assessed task, OCR moderated
R107: Development and presenting engineering designs.	Centre-assessed task, OCR moderated
R108: 3D design realisation.	Centre-assessed task, OCR moderated

Programme Partners

SIEMENS GAMESA

Welcome from Shane Nicholson, Head of Quality Management at Siemens Gamesa

"I am delighted to announce that Siemens Gamesa will be the primary partner for this innovative engineering programme at Malet Lambert School. It is certainly a brilliant programme to be involved in.

"It teaches the youngsters a lot about team work and it's good for us to be able to go out into the community and build relationships in this way. We're able to share our knowledge and experience with these talented young people and it's great to be able to help them overcome the engineering challenges they may be facing.

"The programme gives them valuable experiences for the future, particularly if they are looking for a job or apprenticeship in the industry. It's a programme that has gained national recognition and even a meeting with The Queen. We are delighted to be working with Malet Lambert on this exciting programme."



The Siemens Gamesa Apprentices, with ex-pupils Richard Oxburgh and Harrison Coolledge.

SIEMENS Gamesa
RENEWABLE ENERGY

Siemens Gamesa staff will mentor the Y10 students throughout their race car build and teach them some of the technical skills needed for their future courses and careers. The pupils will spend time with employees from Siemens Gamesa learning about engineering as a career whilst developing the technical skills needed to build a battery powered car from scratch.

We are delighted to be working with the school on such an exciting and innovative programme. This will not only give the pupils the technical skills needed to apply for future courses and job roles but it will also provide them with the employability skills needed once they get there.

Stephen Coolledge, Quality Operations Manager from Siemens Gamesa.

ASSOCIATED BRITISH PORTS

ABP have signed up to be our partners through the Careers & Enterprise Company. ABP is the UK's leading port operator, with a unique network of 21 ports across England, Scotland and Wales.

In 2016, ABP and its customers handled 89 million tonnes of cargo. Together with their customers, they support 119,000 jobs and contribute £7.5 billion to the UK economy every year.

ABP is backed by investment in modern facilities and equipment, and supported by experienced employees. Their investment is designed to respond to the needs of customers whose business relies on ports for access to international and, in some cases, domestic markets. Helping these firms compete on the global stage and protecting national energy security are key roles that ports play in the UK economy.

The students will be able to listen to a variety of careers talks and attend various workshops throughout their two year programme. ABP will demonstrate how engineering links to the ports and logistics industry and expose the students to the vast range of careers that exist with them.



ABP
ASSOCIATED BRITISH PORTS

The school will also partner with HETA, ABP, BAE, Swift & The University of Hull to increase the number of employer encounters that our pupils have with significant engineering businesses and organisations in the local area. This will give them greater knowledge on the variety of job roles and disciplines within the industry.



SWIFT
APPROVED PARTNER

SIEMENS Gamesa
RENEWABLE ENERGY

BAE SYSTEMS
INSPIRED WORK

HETA
Engineering The Future

UNIVERSITY OF Hull
Associate Institution

Sewell
Group

Programme Partners

WILBERFORCE SIXTH FORM COLLEGE

Welcome from David Cooper, Principal of Wilberforce 6th Form College

"This is a very exciting time to be a young person in Hull and the East Riding.

The growth of the sustainable technologies industry is transforming employment opportunities throughout the region, and job opportunities in engineering are booming. However what is becoming clear is that there are not enough highly trained engineers to meet this demand.

"That is why this collaboration between Malet Lambert School and Wilberforce Sixth Form College is so significant. Both institutions have a reputation for academic excellence and putting the futures of their students at the forefront of everything they do, and they have put this engineering programme together to make sure that their students are well placed to take advantage of these exciting opportunities in engineering.

"This programme is about ensuring that the students of Malet and Wilberforce have the skills, knowledge and personal qualities to grasp these opportunities in engineering at the highest level, and be at the forefront of transforming this region.

"As educationalists, we know that young peoples' career aims change as their experiences broaden. Engineering takes many forms – civil, electrical, cyber, medical to name but a few. This programme has been designed specifically to provide a broad experience of engineering and develop a wide range of skills, so that students can make an informed choice.

"I think this is a really exciting opportunity for young people, to work with industry experienced engineers and to play a key role in transforming not only their own lives but to shape the future of the Humber."



WILBERFORCE
sixth form college

ENGINEERING MASTERCLASS PROGRAMME

Wilberforce will run a series of master classes throughout the two year programme. This will enable our pupils to explore the vast range of engineering disciplines such as chemical, mechanical, electrical and digital engineering so that they have lots of experience of each area but also a better idea of the careers that will exist locally within that particular field. The outline of their master class programme is shown below:

Engineering Experience Days Plan

There will be an opportunity to take part in three half day sessions working with the Engineering tutors at Wilberforce Sixth Form College. Students will be able to choose any three from the following themes:

CAD/CAM

Students will explore how to use Solidedge Computer Aided Design program. They will design a keyring that can then be produced on the 3D printer or CNC machine.

Robotics

Students will build a robotic arm and then use it to complete a timed task in an exciting competition with the other students. They will also have the opportunity to work with an advanced robotic kit that is linked using mechatronics

Car design and vacuum forming

Using problem solving skills, the students will build their own cars from Meccano type materials. They will challenge each other to produce a car that travels the greatest distance. In addition the students will be able to mould a body for their car using vacuum forming.

Microcontrollers

Using BBC microbit to introduce microcontrollers, staff will set challenges to students to apply the technology to such examples as traffic lights and motion sensors.

Electrical fitting

An introduction to electrical fitting. Students will build a basic light circuit and then create a two way light circuit.



Programme Partners



EMPLOYABILITY SKILLS DEVELOPMENT WITH BARCLAYS PLC

The group will complete a variety of Barclays Life Skills master classes to help develop the key employability skills needed to apply for some of the most competitive job roles in the region. Teams from the company will be in school to deliver workshops on CV writing, job applications, networking, presentation skills and will run mock interviews to enhance their chances of succeeding at interview. The master class programme will really help young people to develop the key employability skills needed for their future job roles.

“Three quarters of young people who engage with LifeSkills feel more confident to make decisions about their future.”

Kirstie Mackey, Life Skills Team.

LifeSkills
Created with  **BARCLAYS**

INSPIRE IGNITE WORKSHOPS

This programme will provide young people with the most amazing opportunities for industry related skills development to create that stand out CV. However, there will also be an opportunity for them to work on their personal attributes and qualities which is as equally important.



Inspire Ignite will deliver their “Me, Myself and I Programme” to the pupils during enrichment mornings. They will be given expert advice on raising self-esteem, being confident in the work place, how to deal with difficult situations at work and how to promote themselves once in the role.

We not only want our young people to succeed by getting the job that they had hoped for, but also want to help pupils promote themselves once in a role to maximise their chances of promotion. Inspire Ignite will provide the pupils with the development opportunities that will support them throughout their entire careers.

Example of the ‘Me, Myself and I’ workshop:

Learning how to develop Self Management and Confidence

Ability to problem solve in a positive way

Disassociation with your usual patterns of coping

Understanding what makes me tick

Raise awareness of limiting beliefs

Using attitude for positive impact

Developing emotional well-being

Understanding your outcomes

Awareness of emotional well-being

What I need to give up, to develop me

How to connect learning with your aspirations

Developing enterprise skills and how to move forward with them

Success Stories

The Employer Led Engineering Programme has been running for a number of years across our trust schools and has achieved excellent outcomes. Many of the pupils on the programme have secured jobs with some of the country's largest and most iconic employers or have gone on to study engineering at University.

DAVID SHUTTLEWORTH

Position: Higher Level Technician Apprentice

Company: BAE

“The programme allowed me to talk about a real project. It was great to show them images of me driving the car during my interview.”



David Shuttleworth on his induction weekend with BAE Systems.

ROSS LANCASTER

Position: Higher Level Apprentice

Company: Audi

“I took part in this programme at South Hunsley School by getting involved in a race car project. The interviewer said that this was one of the reasons why I was offered a Higher Level Apprenticeship with Audi this year.”

ADAM STOREY

Position: Higher Level Apprentice

Company: Rolls Royce

“This programme gave me the opportunity to connect with an employee at Rolls Royce who was able to provide me with valuable support during my interview for an apprenticeship that I had applied for. I was delighted to be offered an apprenticeship there after a very successful interview thanks to his input.”

SHAYMA FLEET

Position: Engineering student

Company: University of Manchester

Shayma was accepted on her Civil Engineering degree course at University of Manchester. She worked with a mentor from industry and went out on work experience.

“It was wonderful to have someone work with me from industry to talk about careers from an outside perspective. It really did enhance my application for college and university and will no doubt be a fantastic talking point when I go for an interview.”

