# #Explore Acoustics

Your career guide to Acoustics





### WHATIS ACOUSTICS?

If you're looking for a fascinating career, where you can put your maths and science skills into practice, then acoustics could be for you.

Acoustics also involves a human element, not only does it affect everything around us, but has an impact on our health and wellbeing.

By understanding how sound waves propagate and how people respond to sounds, you will help to engineer a better sounding world. Professional acousticians use their expertise to work in a huge variety of fields – from the design of a recording studio to environmental and workplace noise measurement, as well as the assessment of wind farm nuisance to car and jet engine design, to name just a few.

So, if your idea of a great career is one that mixes people, science and engineering in various combinations, then you can be confident that a rewarding job awaits you somewhere in the world of acoustics.



One of the best things I've learnt about the field of acoustics is that companies are crying out for graduates.

Elle Kalavsky Undergraduate Placement in the Acoustics Labs, University of Salford

> SCAN THIS CODE ON YOUR PHONE CAMERA TO WATCH ELLE'S FULL VIDEO INTERVIEW





## WHY STUDY FOR A CAREER IN ACOUSTICS?

- £18,000 starter salary around £50,000 for an experienced member of staff
- Improve people's everyday life
- "There are more jobs available than people!"- Elle Kalavsky, Salford University

This guide has been produced by The Association of Noise Consultants (ANC), the voice of professional consultancy in acoustics, noise and vibration in the UK.

ANC's purpose is to;

- Lead the way to improve acoustics for the whole of society
- Promote high standards and good practice in acoustics
- Highlight the challenging, exciting and rewarding career opportunities available in acoustics, which utilise science, technology, engineering and mathematics (STEM)

ANC members provide consultancy advice across all areas of acoustics, noise and vibration sectors to support the built environment, transportation and entertainment sectors.

Members also aid the well-being and comfort of building-users across the whole spectrum of use, in public, private and commercial places.

Their expertise creates usable environments from the most challenging sites.

There's a variety of sectors acoustics relates to, not just specifically sound industries.

Acoustic consultants/engineers can work within a number of different environments.

Some of the areas include;

- GENERAL ACOUSTICS
- ARCHITECTURAL ACOUSTICS
- ENVIRONMENTAL ACOUSTICS
- NOISE & VIBRATION
- MUSICAL ACOUSTICS
- UNDERWATER ACOUSTICS

There are plenty more industries to explore within acoustics, listed on the website:

http://www.association-of-noise-consultants.co.uk/services/



### EDUCATION PATHWAY

There's no size fits all but a good starting point is;

- STEM subjects (Science (Numerate Science), Technology, Engineering and Mathematics) at A-level and University level
- Average UCAS points 112-168 for Specific Acoustic Degrees (with STEM A level subjects), alternatively some accept a BTEC in Engineering
- Music Technology degrees can be accepted, as long as you study for a
  post graduate in Acoustics (usually 2:1 or above degree, with STEM
  subjects studied at undergraduate level)
- Courses in specific Acoustic Degrees include; London South Bank University, Salford University, Southampton University and Southampton Solent University

#### HOW DO I KNOW ACOUSTICS IS FOR ME?

Acoustics underpins everyday life. Could you see yourself applying your aptitude for STEM subjects to an industry the world couldn't function without?

#### Do the traits below make up your personality?

- Natural curiosity
- Numerical skills
- Logical thinking

- Creative
- Innovative
- Attention to detail

- Patience
- Team player
- Technical and mechanical knowledge

- Problem solving
- Ownership
- Good communication skills



#### VICKY STEWART

Associate Acoustic Consultant Atkins – a member of the SNC-Lavalin Group

### Why should students 'Explore Acoustics' for a career?

Acoustics is more than just science and maths, it's about perception and context. We try to ensure that the right sound is in the right environment. And the work if so diverse – from music venues to the sounds of the ocean.

We look at making homes quieter, but also how people exit public places in an emergency.

And, of course, these things aren't just important in the UK, they're important all over the world.

### Which STEM subjects are used in the profession?

An understanding of maths and physics can help along with a basic understanding of music. I don't play a musical instrument, but many acousticians do.

Having people skills and being able

to communicate with people, plus an interest in solving problems, are all important.

#### Where does your work take you?

My career in acoustics has taken me to places that I wouldn't have been to otherwise, such as The World Islands in Dubai. And I've also measured noise in the baggage handling area of a UK major airport – but not on the same trip.

### What do you enjoy most about the role?

My favourite thing about working in acoustics is that I get to see my projects come to life all over the country and internationally too.

## What do you think is the single most important thing that acousticians do?

The stuff we do makes a difference. Noise barriers between houses and roads, classroom acoustics so the kids can learn, music levels at concerts so it's not too loud or too quiet – the quality and level of sound is vitally important for all these things.

SCAN THIS CODE ON YOUR PHONE CAMERA TO WATCH VICKY'S FULL VIDEO INTERVIEW



#### DOMINIC BOWERS

Final Year Student University of Salford

### Why should students 'Explore Acoustics'?

If you are interested in how things work, have an inquisitive mind and love music then it's the perfect industry for you.

#### Why did you study acoustics?

I wasn't quite sure what I wanted to do, but when I found out about acoustics I realised it was a great course for me. I play the guitar, love science and physics – and acoustics merges everything together.

It's been eye-opening to discover the breadth of work available in the industry – from construction sites to studios and even cathedral design.

### Why is it important for students to study STEM subjects?

At A Level, I studied maths, physics, music technology and electronics and the STEM subjects help to understand the science behind acoustics.

It's also important to find a balance between creativity and science



because acoustics is a combination of technology and music and although there are the scientific parts of the job, it also includes a creative flair.

## What do you enjoy about acoustics? Where do you want to make your mark?

I enjoy seeing the reaction of others when they experience sound in different spaces.

I've really enjoyed university open days where I've given tours in the anechoic and reverberation chambers – just to see the reaction on peoples faces walking into the different spaces and experiencing something new is amazing.

In the future, I want to design buildings for different purposes, needs or features.

With acoustics the possibilities are endless – and that's why I love it.



SCAN THIS CODE ON YOUR PHONE CAMERA TO WATCH DOMINIC'S FULL VIDEO INTERVIEW

## WHERE TO FIND MORE INFORMATION...

The Association of Noise Consultants (ANC) is the professional body representing consultants in acoustics, noise and vibration in the UK – and many of their members are reporting a shortage of graduates.

In fact, in a complete trend reversal compared with other sectors, there are often more acoustics jobs available than there are graduates. The ANC has launched the 'Explore Acoustics' campaign to demonstrate the wide range of opportunities available to students interested in a career within STEM subjects.

Video interviews and in-depth case studies - featuring students, graduates, professionals and academics in the industry - are available to view online.

For further knowledge and insight into the acoustics industry, scan the QR code to access over 20 student and industry expert video interviews.



There is also a page of in-depth case studies that can be found on the ANC's website:

www.association-of-noise-consultants.co.uk/exploreacoustics-case-studies/



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