Mechanical Engineering
Level 9

Your Careers Adviser
Peter Lewis
Skills developed in college

You've developed a range of skills through your education, work experience and personal interests and achievements.

Understanding what skills you have to offer and like to use can help you understand what you want in a career, as well as providing key information for job or further study applications.

In terms of securing a job, academic qualifications alone will not guarantee success. Evidence-based skills sections on your CV can demonstrate the broad range of qualities you have to offer employers.

Opposite are some of the main skills you may have developed while in college:

- Communication skills, both verbal and written
  Expressing ideas effectively and conveying information appropriately and accurately. Influencing others by expressing self effectively in a group and in one to one situations. Showing a range of verbal and nonverbal signals that the information being received is understood.

- Teamwork/working with others
  Working effectively and confidently within a group to achieve a common goal or task. Including understanding your role within the team, and listening and supporting other team members.

- Problem-solving ability
  Identifying, prioritising and solving problems, individually or in groups; possessing the ability to ask the right questions, sort out the many facets of a problem, and contribute ideas as well as answers regarding the problem.

- Time-management skills/ability to meet deadlines
  Managing several tasks at once; being able to set priorities and to allocate time efficiently in order to meet deadlines.

- Planning and organising
  Establishing a course of action for self and/or others to accomplish a specific goal. Planning proper assignments of personnel and appropriate allocation of resources.

- Leadership skills
  Motivating and taking responsibility to lead other people, in order to achieve set goals and objectives.

- Initiative & self-management
  Identifying opportunities and being proactive in putting forward ideas and potential solutions. Self-disciplined and self-motivated, in the pursuit of studies and professional practice.

- Ability to make quick decisions/work under pressure
  Making decisions and taking action. Maintaining performance under pressure and/or opposition.

You may also have developed a wide range of technical/specific course related skills
Types of employers/industry sectors

Some of the main types of employers/industry sectors in which Mechanical Engineering graduates work include:

- Engineering Consultancies
- Transport including road and railways
- Energy Companies / Renewable and Sustainable Energy
- Irish Defence Forces
- Manufacturing industries (Bio / MedTech / Pharma / Chemical/Food & Bev / ICT etc.)
- Aerospace and automotive industries
- Process industries, including pharmaceuticals, food and cosmetics
- Construction companies
- Government agencies
- Medical Devices / Medicine engineering
- Energy utilities
- Oil and gas industries, including petro-chemical industries
- Safety
- Education
- Research and Development

For sector information see:
- www.gradireland.com
- www.careersportal.ie
- www.prospects.ac.uk
- www.targetjobs.co.uk

Career options with your course

Some of main occupations and job profiles secured by Mechanical Engineering graduates include:

- Mechanical Projects Engineer
- Tools Design Engineer
- Services Engineer
- Process Engineer
- Commodity Manager
- Lead Building Services
- BIM Engineer & Coordinator
- Mechanical Design Engineer
- Manufacturing Engineer
- Assistant Design Engineer
- Engineer
- Mechanical Design
- Graduate Engineer
- Mechanical Engineer
- Meds Engineer
- Technician
- Internship
- Engineering Graduate
- Building Solar Panels
- Loan Evaluator
- R&D Engineer
- Graduate Manufacturing Engineer
- Refund Administrator
- Production Development Engineer
- Customer Support Engineer
- Research & Development Engineer
- Account Manager
- Mechanical Automation Engineer
- Manager

For occupational information see:
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- www.prospects.ac.uk
- www.targetjobs.co.uk

www.tudublin.ie/careers
Employers who have recruited in your area

Companies who have recruited Mechanical Engineering graduates:

- Kingspan Insulated Panels
- Self employed
- Mac-Group
- Intel
- NCR Corporation
- Metec Consulting Engineers
- Noel Lawler Consulting Engineers
- WElink Energy Group
- Project Engineering
- Rolls Royce
- Novum Refrigeration
- Alvinco & Marcel
- Ryanair
- ASML
- Brabant
- Burnside Autocity

Job Hunting

It is important that you access both the advertised and hidden jobs market and use any and every means available to you to job hunt effectively.

Advertised Jobs

Most University and IT Careers Services have jobs listings on their websites:

- [www.tudublin.ie/jobscene](http://www.tudublin.ie/jobscene)

Graduate programmes and immediate vacancies

GRADUATE RECRUITMENT WEBSITES

- Gradireland (Ire): [www.gradireland.com](http://www.gradireland.com)
- Gradcracker (UK): [www.gradcracker.com](http://www.gradcracker.com)
- Prospects (UK): [www.prospects.ac.uk](http://www.prospects.ac.uk)
- TargetJobs (UK): [www.targetjobs.co.uk](http://www.targetjobs.co.uk)
- Milkround (UK): [www.milkround.com](http://www.milkround.com)

ONLINE SEARCH ENGINES / AGENCIES

- Recruitment Agencies - [www.irishjobs.ie/agencies](http://www.irishjobs.ie/agencies) – complete list of agencies
- On-line recruitment search engines e.g. [www.indeed.ie](http://www.indeed.ie); [www.irishjobs.ie](http://www.irishjobs.ie); [www.jobs.ie](http://www.jobs.ie); [www.spunout.ie](http://www.spunout.ie); [www.campus.ie](http://www.campus.ie); HiUp App; [www.parttimejobs.ie](http://www.parttimejobs.ie)

OTHER ENGINEERING JOB-HUNTING WEBSITES

- Engineers Ireland Job Desk/Employment Services (Jobs Desk) – [www.engineersireland.ie](http://www.engineersireland.ie)
- LinkedIn Groups (e.g. Engineers Ireland) – [www.linkedin.com](http://www.linkedin.com)
- Association of Consulting Engineers (Directory) – [www.acei.ie](http://www.acei.ie)
- 'the engineer' jobs site (UK) - [https://jobs.theengineer.co.uk/](https://jobs.theengineer.co.uk/)
- Top Engineering Jobs (UK) - [www.topengineeringjobs.com](http://www.topengineeringjobs.com)
- Internships - [www.internjobs.com](http://www.internjobs.com)
- Institute of Engineering and Technology Jobs Site - [https://engineering-jobs.theiet.org/](https://engineering-jobs.theiet.org/)
- US Engineering Jobs Website - [www.engineeringjobs.com](http://www.engineeringjobs.com)
- IIAESTE (International work experience) - [http://iaestelc.ie/](http://iaestelc.ie/)
- Iagora (International Jobs & Internships) – [www.iagora.com](http://www.iagora.com)

PUBLIC SECTOR JOBS

- Public Service - [www.publicjobs.ie](http://www.publicjobs.ie), [www.localgovernmentjobs.ie](http://www.localgovernmentjobs.ie)

EVENTS/PUBLICATION ETC.

- Careers fairs – Gradireland Fair – Autumn, STEM (Feb), Summer Fair, plus many others
- Organisational websites - trainee programmes, vacancies, summer internships
- Specialist Magazines & Publications e.g. Engineers Journal (Engineers Ireland)
- Notice boards/Student email account/Lecturers
- Company Presentations (On or Off-Campus)
- Local and national press – [http://www.mondotimes.com/1/world/ie](http://www.mondotimes.com/1/world/ie)

SUMMER WORK / PART-TIME JOBS

- Be proactive – use company directories and your network and contact employers directly
- Some useful websites: [www.dit.ie/jobscene](http://www.dit.ie/jobscene); [www.gradireland.com](http://www.gradireland.com); [www.ditsu.ie/welfare/employment/positions-available/](http://www.ditsu.ie/welfare/employment/positions-available/); [www.jobs.ie](http://www.jobs.ie); [www.spunout.ie](http://www.spunout.ie); [www.campus.ie](http://www.campus.ie); HiUp App; [www.parttimejobs.ie](http://www.parttimejobs.ie)

VOLUNTARY SECTOR / CHARITIES

- Volunteering/NGOs - [www.dit.ie/careers/studentsgraduates/thinkingaboutvolunteering/](http://www.dit.ie/careers/studentsgraduates/thinkingaboutvolunteering/)
- DIT Student Volunteering - [www.studentvolunteer.ie/dit](http://www.studentvolunteer.ie/dit)
- Engineers Without Borders - [www.engineerswithoutborders.org](http://www.engineerswithoutborders.org)

www.tudublin.ie/careers
Unadvertised Vacancies

NETWORKING
- Use help from anyone in your network – friends, family, classmates, lecturers, neighbours, colleagues, friends from clubs & societies, teammates, work-mates
- LinkedIn is a vital resource for networking!!!!
- See LinkedIn resources at http://www.dit.ie/careers/studentsgraduates/resources/
- Informational interviewing – identify and speak to relevant people in industry
- Work Experience/Job Shadow – gain onsite experience through formal roles or observation
- Attend events, conferences, short courses, trade shows, Engineers Ireland events
- Get in touch with past guest speakers – connect on LinkedIn!
- Use First/Graduate Destination Reports to ID where past grads have gone
- Join Professional Bodies
- Join Alumni Association/LinkedIn DIT Alumni group – Use Alumni function on LinkedIn
- Find a mentor i.e. someone who can advise and guide you from a career perspective
- Use contacts gained from Thesis/College work – actively build these contacts
- Keep a job hunting record

CONTACT COMPANIES DIRECTLY
- Speculative applications + cold calling.
- Contact organisation with ideas (ways to reduce costs, make them more money, speed up R+D, Your Unique Selling Point)
- Utilise directories (Also see ‘Useful Links’ section below) – www.kompass.com, www.idaIreland.com, professional bodies e.g. Engineers Ireland, www.goldenpages.ie

ENTREPRENEURSHIP
- Freelancing/Work experience/Self-employment/Start-Up
- http://www.dit.ie/careers/studentsgraduates/interestedinselfemployment/
- TU Dublin Hothouse - www.dit.ie/hothouse/
- Local Enterprise Office - www.localenterprise.ie
- The Digital Hub - www.thedigitalhub.com

Start Ups:
- Start-up companies – www.startupdublin.com, dublinstartupjobs.com
- https://angel.co/ - start up jobs worldwide

Track companies:
- Scholarships/Competitions/Blogs / Guest lecturer
- Check out Labour Market trends, www.careersportal.ie, IDA, IBEC (Retail/Financial services), www.tudublin.ie/careers (labour market news)
- Search newspaper business pages on-line to get success stories on businesses as they are growing – TU Dublin Careers website (labour market news)
- Check out industry award recipients,

Other proactive ideas
- Enter competitions / scholarships
- Get Work Experience / Internship
- Social networking sites (facebook, twitter, LinkedIn, Facebook, Blog, Discussion Groups)
- LinkedIn (set up a profile, link to others, search for companies - employees who have
- LinkedIn profiles, advertised jobs)
- Follow & target companies on facebook, linked-in, twitter

For more information on how to go about finding a job and job-hunting sites, See www.tudublin.ie/careers

Interviews
For more information on how to perform in interviews, See www.tudublin.ie/careers

CVs/Cover letters and applications
For information on how to put together a great CV/Cover Letter or Application, See www.tudublin.ie/careers
Useful links (e.g. Company Databases, Professional Bodies, LinkedIn Groups)

This list contains links to some of the most useful websites for your course including professional bodies and associations, employer directories, information sources and LinkedIn groups.

**General websites — useful links**

- [www.engineersireland.com](http://www.engineersireland.com) - Engineers Ireland (Institute of Engineers Ireland)
- [www.ied.org.uk](http://www.ied.org.uk) - Institute of Engineering Designers
- [www.imeche.org](http://www.imeche.org) - The Institution of Mechanical Engineers (IMechE)
- [www.enq.org.uk](http://www.enq.org.uk) - The Engineering Council UK
- [www.acel.ie](http://www.acel.ie) - Association of Consulting Engineers Ireland
- [www.irishmedtechassoc.ie](http://www.irishmedtechassoc.ie) - Irish Medical Device Association
- [www.seai.ie](http://www.seai.ie) - Sustainable Energy Ireland
- [www.aae.ie](http://www.aae.ie) - The Association of Energy Engineers Ireland
- [www.dcce.gov.ie](http://www.dcce.gov.ie) - Department of Communications, Climate Action & Environment
- [www.ipha.ie](http://www.ipha.ie) – Irish Pharmaceutical Healthcare Association
- [www.biopharmachemireland.ie](http://www.biopharmachemireland.ie) – BioPharmaChem Ireland
- [www.acenet.co.uk](http://www.acenet.co.uk) - The Association of Consulting Engineers (UK)
- [www.theiet.org](http://www.theiet.org) - Institution of Engineering and Technology
- [www.raeng.org.uk](http://www.raeng.org.uk) - Royal Academy of Engineering
- [www.epsrc.ac.uk](http://www.epsrc.ac.uk) - Engineering and Physical Sciences Research Council
- [www.semta.org.uk](http://www.semta.org.uk) - Skills Council for Science, Engineering & Manufacturing Technologies
- [www.engineeringuk.com](http://www.engineeringuk.com) - Engineering UK
- [www.er-online.co.uk](http://www.er-online.co.uk) - Engineering Resources online
- [www.asme.org](http://www.asme.org) – American Society of Mechanical Engineers
- [www.energyinst.org](http://www.energyinst.org) - Renewable Energy Institute
- [www.imi.org.uk](http://www.imi.org.uk) - Institute of the Motor Industry
- [www.aerosociety.com](http://www.aerosociety.com) – Royal Aeronautical Society
- [www.engineeringskills.org](http://www.engineeringskills.org) - Engineering Skills England
- [www.raeng.org.uk](http://www.raeng.org.uk) - Royal Academy of Engineering
- [www.ee.org.uk](http://www.ee.org.uk) - The Institution of Engineering and Technology
- [www.iae.ie](http://www.iae.ie) - Irish Institute of Aerospace Engineering
- [www.chemengireland.ie](http://www.chemengireland.ie) - Chemical Engineering Ireland
- [www.engineeringskills.org](http://www.engineeringskills.org) - Engineering Skills England
- [www.entrepreneur.ie](http://www.entrepreneur.ie) - Irish SME
- [www.dublin.ie](http://www.dublin.ie) - Dublin City Council
- [www.cro.ie](http://www.cro.ie) - Committee of Irish Engineers
- [www.imechetraining.org](http://www.imechetraining.org) - Institution of Mechanical Engineers Training
- [www.aqmg.com](http://www.aqmg.com) - Association of Quality Managers & Consultants
- [www.irena.org](http://www.irena.org) - International Renewable Energy Agency
- [www.morningstar.com](http://www.morningstar.com) - Morningstar
- [www.globalengineers.com](http://www.globalengineers.com)
- [www.worldbank.org](http://www.worldbank.org)
- [www.imechetraining.org](http://www.imechetraining.org)
- [www.enginst.com](http://www.enginst.com) - Engineering Institute of Scotland
- [www.ipeds.gov](http://www.ipeds.gov) - IPEDS
- [www.ame.org](http://www.ame.org) - American Mechanical Engineering
- [www.apecouncil.com](http://www.apecouncil.com) - APEC Council
- [www.enginingskills.org](http://www.enginingskills.org) - Engineering Skills England
- [www.engineersireland.ie](http://www.engineersireland.ie)
- [www.ied.org.uk](http://www.ied.org.uk)
- [www.imeche.org](http://www.imeche.org)
- [www.enq.org.uk](http://www.enq.org.uk)
- [www.acel.ie](http://www.acel.ie)
- [www.irishmedtechassoc.ie](http://www.irishmedtechassoc.ie)
- [www.seai.ie](http://www.seai.ie)
- [www.aae.ie](http://www.aae.ie)
- [www.dcce.gov.ie](http://www.dcce.gov.ie)
- [www.ipha.ie](http://www.ipha.ie)
- [www.biopharmachemireland.ie](http://www.biopharmachemireland.ie)
- [www.acenet.co.uk](http://www.acenet.co.uk)
- [www.theiet.org](http://www.theiet.org)
- [www.raeng.org.uk](http://www.raeng.org.uk)
- [www.epsrc.ac.uk](http://www.epsrc.ac.uk)
- [www.semta.org.uk](http://www.semta.org.uk)
- [www.engineeringuk.com](http://www.engineeringuk.com)
- [www.er-online.co.uk](http://www.er-online.co.uk)
- [www.asme.org](http://www.asme.org)
- [www.energyinst.org](http://www.energyinst.org)
- [www.imi.org.uk](http://www.imi.org.uk)
- [www.aerosociety.com](http://www.aerosociety.com)

**Sample LinkedIn Groups**

- Engineers Ireland Official Group
- TU Dublin ‘Graduate Network’ (Alumni)
- Institute of Mechanical Engineers – iMechE (UK)
- Engineering Wall - knowledge network for engineering profession
- Mechanical Engineering Forum (subgroup of Engineering Wall)
- Mechanical Power Engineering
- Power Generation Careers
- ASME – American Society of Mechanical Engineers
- Engineering Jobs Worldwide
- Mechanical Design Engineering
- Mechanical Design Forum
- Pharmaceutical Jobs Biotech Life Sciences & Medical Devices
- Freelance Design Engineering
- Mechanical Engineers Network
- Engineering Career Opportunities (Jobs & Employment)
- Oil & Gas People

**Self Employment**

Ever thought of being your own boss? Think you have an innovative product or service idea that could have commercial value? Want to commercialise your research? See [www.tudublin.ie/careers](http://www.tudublin.ie/careers)

**Other Options (e.g. Time out, travel etc.)**

Volunteering and working with communities with is a great way to gain valuable real world experience, to develop new skills, to meet new people, to do something worthwhile and to improve your employability. For more details, see [www.tudublin.ie/careers](http://www.tudublin.ie/careers).
Further Study

Are you considering further study or training? See www.tudublin.ie/careers for comprehensive information.

Conversion courses

Some graduates find that their primary degree did not meet their expectations, either vocationally, academically or personally, and seek change career direction. Conversion courses offer the opportunity to diversify into another chosen career area while meeting the necessary entry requirements for that discipline. However, it should be noted that this is not the case for all disciplines, e.g. disciplines such as science and engineering will require an undergraduate degree in that discipline. Search for programmes at https://gradireland.com/further-study.

Here are some examples of postgraduate courses pursued by graduates of your discipline:

- PhD – TU Dublin
- Masters Business Administration – TCD
- PhD Biomedical Engineer – IT Sligo
- PhD Mechanical Engineering – Queens University Belfast
- MPhil – Other Irish Institution

Chartered Engineer Recognition – Engineers Ireland

- See the following link to the Accreditation Criteria for Professional Titles: http://www.engineersireland.ie/EngineersIreland/media/SiteMedia/services/accreditation/EngineersIrelandAccreditationCriteria2014.pdf
- Please note that, while chartered recognition may be beneficial for career progression, not all engineering disciplines require candidates to hold chartered status to progress.

Careers open to all disciplines (Including ‘Paths Into…’ Series)

Many graduate vacancies don’t require specific degree subjects as possession of a degree is taken as evidence of intellectual ability. What is more important to the potential employer is the range of transferable skills and experience you can demonstrate.

Many graduate training programmes take final year students from a wide range of disciplines, register with the Career Development Centre’s Jobsence for a full list of programmes. Here is a range of career areas that are potentially open to graduates of all disciplines. It’s important to note that some of these options may require further study either on the job or beforehand.

If you are considering diversifying or changing career direction a postgraduate conversion course may be a viable option.

Some examples of career areas open to students of all disciplines:

- Teaching & Education
- Financial Services & Accounting
- Marketing, Advertising and PR
- Retail, Sales and Customer Service
- Banking, insurance and financial services
- Charities and voluntary sector
- Fund management / administration and investment banking
- Human resources, recruitment and training
- Management consulting
- Management, business and administration
- Media and publishing
- Public sector and civil service
- Social, community and youth

For further information see: www.gradireland.com/career-sectors

Labour Market Information

For information on the latest labour market trends see www.tudublin.ie/careers.

Additional Information/Advice

For any query you might have, please do not hesitate to get in touch with us.

Disclaimer: TU Dublin Career Development Centre offers advice in good faith on the basis of the best information available. The Centre accepts no responsibility for decisions made by individuals based on such advice.