

# A Day in the Life... of a Wood Group Structural Engineer

Garry Kenzie is a Structural Engineer with Wood Group and has recently completed three years as a graduate trainee.

Attending Ross High School in East Lothian Garry passed seven Standard Grades. Then, intending to join the Merchant Navy he went on to take Highers in Maths, Physics, Technical Drawing, Geography and Art. In fifth year, after talking to his guidance teacher and careers advisor, Garry became interested in going to university.



Before progressing into sixth year at school Garry was invited to attend a Young Engineers Club event at Stirling. The week-long event introduced young people to the study of products and design. Given challenges such as building as high a structure as possible from certain materials, the young engineers were encouraged to be inventive and to use their initiative while applying knowledge of engineering design.

Although Garry's family have an engineering background, which helped nurture his interest in the subject, he is the first member of his family to go to university. Knowing from sixth year at school he wanted to join the oil and gas industry, a course at Heriot Watt University in Offshore Civil Engineering seemed ideal.

In 1994 Garry started his degree. The first two years were general study of Civil Engineering, Mechanics, Computing and Maths. In the final two years study became more focused upon the areas of Civil and Offshore Engineering. By the Christmas of fourth year Garry started applying for several jobs in the industry.

He was successful in gaining interviews with around six different companies and had varied experiences from attending panel interviews, undertaking psychometric tests, role-play exercises and assessment centres. (For more information on these selection processes contact your local careers advisory service or [www.oilcareers.com](http://www.oilcareers.com)).

With a specific interest in becoming a Structural Engineer Garry saw an advert on the careers office notice board for the Wood Group and sent in his CV. Following an interview and a later more informal visit to the offices, Garry was offered a position conditional upon the completion of his studies.

Graduating with a 2.2 in Civil and Offshore Engineering in 1998 Garry took a 5-week holiday to Australia before returning to start work in Aberdeen as a Graduate Trainee. The programme focuses upon on the job training, working upon a variety of projects to give a broad range of experience, supplemented by relevant training courses identified as needs arise.

Garry explains that the role of Structural Engineer is very different from other types of engineering in the industry as they are not involved with the hydrocarbon (the oil and gas) or other processes as such. The work of the Structural Engineer focuses upon the production facility ensuring that the structure itself and any equipment on it can be supported. As a result a large portion of Garry's time (70-80%) is spent making calculations either by hand or via computer analysis. Garry comments, "I really enjoy this - it is like a jigsaw puzzle!" Calculations are then presented in a report with explanations illustrated by diagrams.



On a typical day, while office based, Garry will start work between 7.30 and 8.00am. The first task of the day is to check emails to see if there are any requests for engineering support. "For example somebody may want to put a heavy load onto a platform, it will be my job to calculate if this is possible or not." Garry has a list of actions for the day detailing any meetings, actions, deadlines or work progress checks that need to be undertaken. Working through the action list Garry will either pick up where he left off the previous day on his calculations or will start upon a new one.

At the moment Garry is involved in the design of a module. In this work he has three main considerations in the development of the design:

- *How is the module to operate / what duty is it required for*
- *How will the module be transported to the site*
- *How will it be lifted onto the structure*



The engineers at Wood Group are situated in an open plan area, sitting with those who work in the same discipline. Garry points out, "communication and sharing of information is easy and I can have discussions with my boss, designers or other engineers to help in the development of a project."

Garry has also spent time working on-site in the role of a support engineer. After spending 8 months in Shetland, Garry moved to Venezuela for 6 months where he worked both on and offshore. Prior to going to Venezuela, Wood Group arranged for Garry to undertake Spanish lessons, which he feels was invaluable when working on-site.

In a typical day working on-site Garry started by checking his emails and his action list for the day. He may have to co-ordinate up to 10 jobs at any one time on the site and is responsible for ensuring personnel and materials are on the site as required and that all the documentation and paperwork is in order. During a daily tour of the site Garry will check how jobs are progressing and if there are any problems he needs to address. Part of his role as the on-site support engineer will require him to undertake work for office based engineers and report back his findings. At the end of each day he will again check his emails and will develop an action list for the next day.

When asked what he likes most about his job Garry comments, "**I love to get a problem and try to solve it. As a Structural Engineer you actually get to see how you have fixed something, as it is physical and solid. I find this aspect of my job very satisfying.**" On the other hand Garry feels the worst part of the job involves paperwork and red tape but he recognises that this is necessary as the industry places great importance on safety issues.

Having completed his period of training Garry is now a fully-fledged Structural Engineer. Within the next two years he hopes to gain chartered status with the Institute of Civil Engineers, a professional body that accredits engineers with certain levels of professional experience. From here over time he hopes to progress to be a Senior Engineer through to Principle then Lead Engineer. "I would be keen to work overseas again and to become involved with decommissioning work in the future."

Attributes Garry sees as important as an engineer are; having an open mind – being able to approach problems from different angles - as well as being intuitive and inventive.

"Maths is the most important subject to study as everything in engineering is Maths. My university lecturer always used to stress this!" Other school subjects Garry thinks were useful for him are Physics and Technical Drawing. "Engineers need to be able to think in 3-dimensions so Technical Drawing has been useful in this aspect." Garry also acknowledges that although not necessary for the job, knowledge of another language can help make you more marketable. Garry concludes as advice to younger people, "**Look for a career that suits your interests whatever they are, as it really helps if you enjoy going to work everyday**".