Targeted job

DTU Global Top Student Programme - Internship in Engineering Analysis for Medical Device Development

Coloplast
Large company
Medicine / Pharmaceuticals / Health

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Contract
Internship 4 to 5 months

Location
Humlebæk, Region Hovedstaden (Denmark)

Start date
January 2027

Salary
Information not provided

Remote working
No remote working

Coloplast is a global medical technology company headquartered in Denmark, focused on improving life for people with intimate healthcare needs. Its mission is to make life easier through user-driven innovation, delivering solutions across ostomy, continence, urology, wound care, and related areas. With a presence in 100+ countries, Coloplast combines strong clinical expertise, innovation, and a purpose-driven, inclusive culture.

This internship is offered through the Global Top Student Programme at the Technical U of Denmark (DTU) in collaboration with Coloplast A/S. Only top bachelor students n d by their home university are eligible to apply. As participants, students will gain

hands-on professional experience while being connected to DTU's international academic environment and student community.

Job Description

The project gives you the opportunity to work at the intersection of advanced simulation, experimental testing, and robust design methodology for polymer-based medical devices. You will investigate how contact interfaces between product components can be designed to be predictable and insensitive to tolerances, material variation, and manufacturing conditions. An emerging design strategy is to reduce the number or size of contact areas, creating more well-defined load paths — but the approach also increases local contact pressure. This raises important questions about long-term performance of polymer-based products, since stress relaxation, creep, and pressure-dependent friction may all interact over time.

The project will focus on understanding whether high-pressure contact designs can lead to performance changes during shelf life, or whether these material and friction effects can be used to our advantage in future product concepts. You will contribute through material testing, friction characterization, data analysis, and detailed simulation of contact behavior, working closely with simulation engineers, product development specialists, and internal and external stakeholders to translate technical insight into practical design guidelines. You will become part of a professional, open-minded, and respectful working culture, where curiosity, collaboration, and technical dialogue are highly valued.

The Engineering Analysis Team is part of the Center of Excellence and supports product development by providing novel insights and methodologies that facilitate innovative product development. The team focuses on four main areas: Robust Design, Design for Manufacturing, Simulation, and Sustainability. Your work will be dedicated to stress relaxation, creep, and pressure-dependent friction evolution over time in relation to product performance. As an intern, you will work alongside experienced colleagues who will support your learning and development while giving you the opportunity to contribute your own ideas and skills.

Your tasks will include (but are not limited to):

- Perform material characterization of polymer components (creep, stress relaxation)
- Design and execute friction and contact experiments under varying pressures
- Generate high-quality datasets for model validation
- Develop detailed finite element models of contact interfaces
- Analyze local stress and deformation near high-pressure contact zones
- Evaluate trade-offs between contact pressure, friction, and long-term stability
- Translate simulation and experimental results into robust design guidelines

- Collaborate with internal and external stakeholders
- Contribute to reports, presentations, or technical documentation
- Participate in team meetings and project discussions

The exact tasks and responsibilities will be adjusted based on your background, interests, and the needs of the team.

Qualifications
We are looking for a motivated and curious candidate who:

- Is currently enrolled in the final year of a Bachelor's degree programme
- Has a background in Mechanical Engineering / Materials Science and Engineering.
- Has relevant academic or practical experience (such as material mechanics, applied mathematics, simulation and numerical modelling)
- Has an interest in polymer mechanics, friction and tribology, and computational modelling.
- Is analytical, structured, and able to work independently
- Has good collaboration and communication skills
- Has demonstrated proficiency in written and spoken English, documented by one of the following English language tests. Minimum required scores are:

- Duolingo English Test (overall: 120)
- TOEFL (old scale overall: 92, new scale overall: 4.5)
- IELTS Academic (overall: 6.5)
- CAE (overall: 180)

You can read more about the language test requirements here.

What we offer
The internship offers international students the opportunity to gain hands-on professional experience in Denmark while working in an international and innovative environment at Coloplast A/S.

Through DTU's Global Top Student Programme, interns will also become part of DTU's international student and alumni community, gaining access to a range of exclusive offers and support, including:

- Administrative and practical support – including housing assistance
- Social and networking framework, including an introduction week, cultural activities, and semester events
- Parallel academic opportunities – coursework on the side

Practical information:

- Internship period: 25 January 2027 – 25 June 2027 (one semester)
- Working hours: 37 hours per week (full-time)
- Location: Coloplast A/S, Holtedam 1, 3050 Humlebæk, Denmark
- Compensation: The internship is compensated in accordance with standard internship salary levels in Denmark.

You can read more about the company here: Coloplast
For useful information on the programme and student life at DTU, see Global Top Student Programme and Student guide – DTU.

Application procedure
The application procedure consists of two steps.

Step 1: Nomination
In order to be considered for this programme, you must be nominated by your home university in the DTU Exchange Student system. Once you have been nominated, you must complete your nomination by uploading the following documents:

- Grade transcripts (in English) including an official description of the grading scale
- Documentation proving that you have passed one of the above English language tests

Step 2: Application
To apply, please open the link "Apply now", fill out the online application form, and attach all your materials in English as PDF files. The files must include:

- A CV including information about your education, relevant experience, language skills, and other skills relevant to the internship position
- A motivated cover letter (max. 1 page)

Your complete online application must be submitted no later than 15 September 2026 (23:59 Danish time).

We look forward to receiving your application.

Application deadline

16 September 2026

Study level

Bachelor level or equivalent

Job Category

Engineering

Related tags

DTU Global Top Student Programme