

IPI Member Corporations:

ALCAN PACKAGING



BOSCH



Nestlé

Good Food, Good Life®



Unilever

Master of Engineering in Packaging Technology



» Skilled for the future

«Packaging technology has undergone fundamental changes in recent decades, from being a field characterized by craft-skills to one which is an advanced industrialized industry. The changes extend far beyond the introduction of new plant and machinery designs, as well as, the development of specific materials which are quite distinct from those used in other areas. In addition, this industry has seen significant progress in productivity, process optimization and the management of resources to ensure sustainability.

An industry with these dynamics requires an increasing number of highly qualified specialists and managers, who are distinguished by their extensive subject knowledge, their analytical ability, leadership skills and a clear focus on anticipating and resolving issues.

The Master of Engineering in Packaging Technology has been designed to match these requirements and provides the full range of skills and knowledge to take on management tasks.»



Prof. Dr. Ingo Büren

Director of Science & Technology
IPI International Packaging Institute

About IPI

The International Packaging Institute IPI is recognised throughout the industry as a leading Competence Centre for packaging and was established by leading international corporations in the packaging industry, partnered by highly respected universities, and in close cooperation with industry associations and a unique pool of experts. IPI is also supported by the community of Neuhausen, the state of Schaffhausen and the Swiss Federal Government.

IPI Member Corporations:

Alcan Packaging / Bosch / Cilag / Nestle / SIG / Unilever

IPI Sponsor Corporations:

ABB / Janoschka Group / Lippke (Mocon) / Medipack / Perlen
Converting / Siegwerk / SunChemical / Wipf

IPI Partner Institutes:

- Constance University of Applied Sciences, Germany
- Stuttgart University of Media, Germany
- Zurich University of Applied Sciences, Switzerland
- Michigan State University, USA
- Clemson University, USA

Preferred Academic Partner of:

- IAPRI International Association of Packaging Research Institutes
- EAFA European Aluminium Foil Association
e.V. / Flexible Packaging Europe



Master of Engineering in Packaging Technology Worldwide Unique

Study Profile

The Master of Engineering in Packaging Technology is a part-time, modular study program which focuses on current practice and developments in the packaging industry. Expert knowledge across the whole packaging technology value chain is enhanced and relevant skills are developed to ensure newly acquired knowledge is understood and applied with maximum effectiveness within both the business and environmental context. The skills developed include those needed in management and leadership positions in the packaging industry.

It is precisely the focus on all the relevant aspects of packaging technology which makes the Master of Engineering in Packaging Technology unique.

Duration and format

The program is part-time and usually lasts four semesters. There are 96 study-days, divided into one-week blocks and spread over two years. The program represents 120 ECTS Credits*, is split into five principal topics and includes a study-visit to Michigan State University, USA.

* ECTS=European Credit Transfer System; is a Europe-wide system for uniform recognition of programs of study and was enacted under the Bologna Declaration.

Academic Degree

The internationally recognised degree of «**Master of Engineering**» will be granted by the participating universities upon successful completion of the program at IPI.



Program Content

Master the Packaging Value Chain

Program Aim

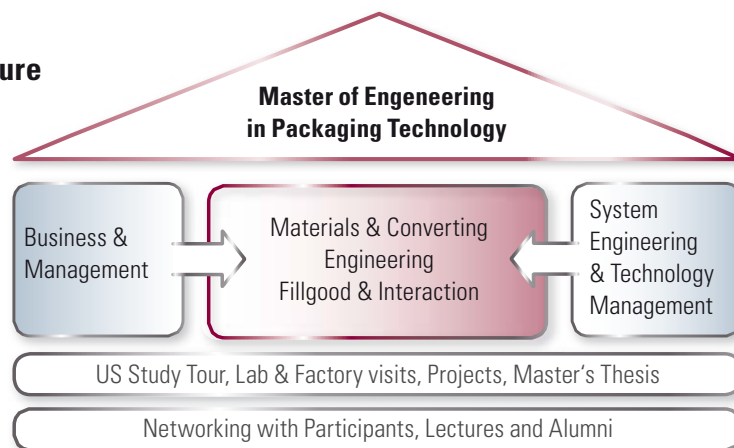
The content of the program delivers knowledge and understanding of the complete value chain of packaging and enables participants to master interdisciplinary packaging tasks.

The program is focused on the area of lightweight primary packaging with the emphasis on fillgood/primary packaging interaction, food and life science applications, multilayer laminates and composite materials, process orientation and packaging management. In the modules, participants learn about packaging materials, packaging machines and packaging technologies and the effects of fillgoods on packaging. Systems for designing and optimizing packaging are developed and the packaging process is evaluated and monitored. The necessary expertise relating to packaging machinery and equipment, modern technological findings on production practices and legal aspects are also covered. Since packaging must nowadays be environmentally friendly as well as being efficient and cost-effective, the economical, ecological and managerial aspects are also included.

Program Methodology

The design of the Masters program is based on modern teaching and learning strategies and includes e-learning modules, project work, team tasks, case-studies, workshops, company visits and a study-visit to Michigan State University. The program uses a three-phase approach throughout. Consideration of relevant theory is followed by observations of best practices, which is then followed by case-studies and tasks. This process develops specialist knowledge, skills and personal competences and enables both the speedy and successful application of newly acquired knowledge in the workplace. The IPI Scientific Board with its experts from universities and the industry ensures the quality and actuality of the program.

Program Structure



Expert Knowledge

Materials & Converting

» 21 Credits

- Plastics, Metal, Paper & Board, Glass
- Fracture Mechanics and Corrosion
- Packaging Surface Phenomena
- Laminates, Coating and Converting
- Print and pre-Press Processes

Materials represent by and large fifty percent of the cost of packaging. The choice of material is central to the functionality of packaging, as well as to its cost. In-depth understanding and mastery of this area is a key success factor.

Engineering

» 11 Credits

- Design of modern Packaging Machinery
- Drive Systems and Components
- Mechatronics
- Servo Drives and Controls
- Layout of Packaging Lines

Understanding developments in packaging machines and systems enables participants to design flexible, efficient and reliable packaging lines which operate to high hygiene and safety standards. Understanding today's available technologies and future possibilities helps master challenges in the future.

Fillgoods & Interactions with Packaging Materials

» 18 Credits

- Interaction of Packaging & Fillgoods
- Technology of Selected Foods
- Pharmaceutical and Cosmetics Technology
- Hygiene, Quality and Security
- Principles of Preservation, Shelf Life Design
- Active and Intelligent Packaging Systems
- Integrated Environmental Protection

Quality, hygiene and security are key success factors in the packaging industry. The interaction of packaging and fillgoods and hygiene have a significant impact on the quality of the product in the food sector. Security is an additional and important factor in the pharmaceutical industry. Understanding the interplay of these factors is a critical element in the design of packaging.

Practice

Study Tour: Packaging in the US

» 4 Credits

During the Study Tour, the participants will acquire a detailed insight into the US packaging market. At the world's largest packaging institute, Michigan State University – School of Packaging, participants will learn about economic conditions and considerations in the US packaging Industry (packaging business view in the US, consumer marketing the US way, regulatory affairs). You will also meet faculty staff and graduate students, who will give you an insight into typical R&D projects and results. Plant visits to food and pharmaceutical companies and retail store visits top off the tour.



Management Competence

Systems Engineering & Technology Management

» 8 Credits

- New technologies, R&D, innovation
- Advanced quality management
- Rationalization of packaging processes
- Intellectual property
- Advanced packaging systems
- Process design and simulation

Packaging is a dynamic and innovative industry. Being one step ahead of your competitors requires short innovation cycles, targeted R&D activities and total control of the packaging processes. Packaging must be in compliance with laws and regulations. A sound planning of all product and process innovations is therefore indispensable.

Business & Management

» 26 Credits

- Strategy and Value Creation
- Investment & Finance
- Consumer Marketing
- Leadership
- Cross cultural communication
- Presentation & Negotiation
- Business Ethics
- Laws and Regulations in Packaging Industry

The business & management section imparts knowledge, methods, tools and skills which enable participants to understand and master management related topics from business processes and investment decisions to market strategies. The content of this section is highly focused on the packaging industry.

Project Studies

» 12 Credits

The first 3 semesters are completed with a project assignment. Participants choose a relevant topic from their workplace in order to ensure the transfer of newly acquired knowledge and skills into practice.

Master's Thesis

» 20 Credits

Following completion of the taught program, participants select and investigate a research topic from their area of work, preferably linked to their current employer, and receive supervision from one of IPI's pool of experts.



Lecturers of Master's Program

Expertise. Experience. Excellence.

IPI's network of contributors consists of approximately 70 highly experienced and renowned experts from business and scientific communities. The Masters program is taught by over 20 lecturers, each of whom is an expert in his particular field. Here's an overview of some of the people you will meet:



Prof. Dr. Martina Hirayama
Lectures in Polymers

Studied Chemistry and Economics at the ETH Zurich and the Imperial College London, PhD in Chemistry at ETH ZH. Professorship for Polymers and Head of the Institute of Materials and Process Engineering at the Zurich University of Applied Sciences. Expert of the Swiss Innovation Promotion Agency and the European Commission. Member of the Steering Committee of the National Research Programme «Smart Materials».



Dr. Thomas Raedler
Lectures in Food Technology

Studied Food Technology and specializing on Food Packaging during PhD at TU Munich. In 2001 joined Nestlé R&D at Product Technology Centre (PTC) Kempthal (CH) and moved 2003 to PTC Singen (D). Managing packaging material and machine development projects within the culinary and babyfood business of Nestlé from «end to end» on a global base.



Dr. Rainer Brandsch
Lectures in Packaging and its Interactions, Barriers, Migration

Studied Chemistry at the Technical University Karlsruhe, PhD at the Freiburg University. Head of laboratory in the chemical industry. Research projects at the FABES Research GmbH in the area of Interactions between Packaging and Fillgoods. Joined non-profit industry association for Food Technology and Packaging (IVLV). In 2005. Since 2008 Executive Chairman of IVLV.



Prof. Dr. Josef Wieland
Lectures in Ethics

Studied Economy and Philosophy. Head of Research in Business Ethics at the University of Münster. Professorship for Business Ethics at Constance University of applied Sciences, Professorship amongst other in UK and China. Director of Business Ethic Centre. Max-Weber laureate for Business Ethics from Institute of German Business, Cologne. Director of Value-Management-Institute, Constance.



Prof. Dr. Günter Haag
Lectures in Process Quality Management

Engineering degree of FH Heilbronn, studied Physics at Stuttgart University. PhD and habilitation degree at Stuttgart University. Several publications with focus on quantifying companies, technologies and innovations. Founder and Director of the Steinbeis Transfer Centre for Applied System Analysis (STASA GmbH) in Stuttgart. Lecturer in theoretical Physics at the University of Stuttgart.



Prof. Peter Franklin
Lectures in Intercultural Communication and Negotiation

Linguist educated at Cambridge University, U.K. Professorship for Business English and Intercultural Business Communication at the Constance University of Applied Sciences. Teaching and research interests: language, culture and communication in international management; intercultural management competence. Consulting activities for international organisations.



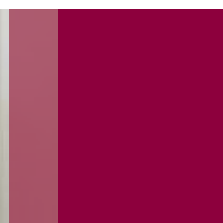
Peter Rychiger
Lectures in Packaging Machinery

Engineering Degree in Burgdorf, Studied Management at University of St.Gallen. CEO of Rychiger AG Steffisburg Packaging Machines Provider, today freelancing consultant and responsible for the US market of Rychiger AG. Chairman of the Board of the Inselspital (hospital) in Bern, President of Economic Chamber Bernese Oberland. Former president of political board of the canton of Bern.



Prof. Dr. Peter Lehmann
Lectures in Information- and Management-Systems

Studied Computer Science at Rheinland-Pfalz University of applied Sciences. PhD at Magdeburg University. Many years experience in Project Management for Data Warehouse applications (Ascom, Hellwig & Partner, Alcan Packaging. Strategy consultant and Head of Consulting for mySAP BI at SAP SI, Switzerland. Professorship for Application Systems (SAP, ERP) and Business Intelligence at University of Media, Stuttgart.



General Information & Registration

Entry requirements

A first degree or equivalent qualification in a relevant discipline e.g. packaging, mechanical engineering, food technology, electrical engineering, chemistry and a good knowledge of English (see below). Candidates should have 2 years' work experience. Please feel free to contact us if you have any questions about your qualifications for entry to the program.

Language

The program is taught and assessed in English, with the thesis normally completed in English. Exceptions may be granted following application to the Examinations Board.

Assessments

The program topics are continually assessed, either orally or in writing, in line with Academic and Examination Guidelines.

Starting dates

The master program starts every year in March.

Investing in your future

The total program fee for the Master's program is 28'800 Euros excl. VAT, travel, accommodation and personal expenses. IPI Members and Sponsors profit from a discount.

Application

The application forms can be submitted all year around. Please visit IPI's website to download the application form.

For further information about the program, to discuss your requirements or to arrange a free on-site trial with individual course guidance please contact our team.



An attractive location

IPI is located in Switzerland and at the centre of a cluster of packaging businesses located in the heart of Europe. A benefit of our location is the ease with which you can visit industry businesses in the region. Getting to IPI is easy – transport links are excellent and close by. Zurich Airport is just 40 minutes from IPI. Additionally, you will be studying in a unique and inspiring location. IPI is on the banks of the River Rhine and the famous Rhine Falls are within easy walking distance. In short, an ideal environment in which to pursue your development.

Schaffhausen, with its old town quarter – Altstadt – is close by and the surrounding countryside offers a wide range of leisure pursuits so that your stays here will be both profitable and thoroughly enjoyable.

We will be pleased to help you find the right location for your stay. Schaffhausen offers a wide range of accommodation, from business hotels and downtown hotels in historic buildings to private accommodation.

IPI – in the heart of the European Packaging Cluster



Contact and Application



Advice and Guidance

Prof. Dr. Ingo Büren

Director of Science and Technology

ingo.bueren@ipi.eu



Advice and Guidance

Stephan Schüle

Head of Marketing and Customer Relationship

stephan.schuele@ipi.eu



Administration

Andrea Müller

andrea.mueller@ipi.eu

For further information about the program, to discuss your requirements or to arrange a free on-site trial with individual course guidance, please contact our team, above.

For more detail on the course and for an application form, please go to: www.ipi.eu



Testimonials

IPI Masters – the road to success

» «It's not just my specialist knowledge and insight into the packaging industry and its possibilities which have increased thanks to the IPI program, it's also my career opportunities which have grown as a result of the broader knowledge I now possess. I would wholeheartedly recommend every specialist engineer in our industry to seize this opportunity.»

Peter Braun » Dipl.-Ing (FH), Qualification / Validation Engineer, Cilag AG, Switzerland

» «I'm highly benefiting from what I have learned at IPI in my daily business. The state of the art – knowledge delivered by the IPI experts has built an immense foundation of packaging knowledge. Due to the overall understanding of technical possibilities and limits I am now really able to consult my customers which results in many business opportunities. Beside the great content IPI also delivers a unique learning environment and helps to improve my Packaging Network.»

Theodoros Zontanos » Business Development Manager, A. Hatzopoulos S.A.
Flexible Packaging Materials, Greece

» «Although I hold a professional qualification, I realized the time was right for me to continue my education and development. The cutting edge of organizations is still based on an highly educated and trained workforce and leaders with a degree to be competitive at a higher level; I needed to complete my education. My IPI experience has been extremely rewarding. I am able to apply concepts learned from my courses immediately in my work environment by undertaking and managing projects and leading others. IPI is like no other university or college I have attended. It has exceeded my expectations and continues to do so. It provides a caliber and flexibility of learning unparalleled by any other institution of higher learning in the packaging industry. The Institute faculty and staff listen to the needs of a student and provide for their learning needs. »

Stefan Kraft » Graduate Printing Engineer FH, Standard Line Owner, Tetra Pak, Sweden

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