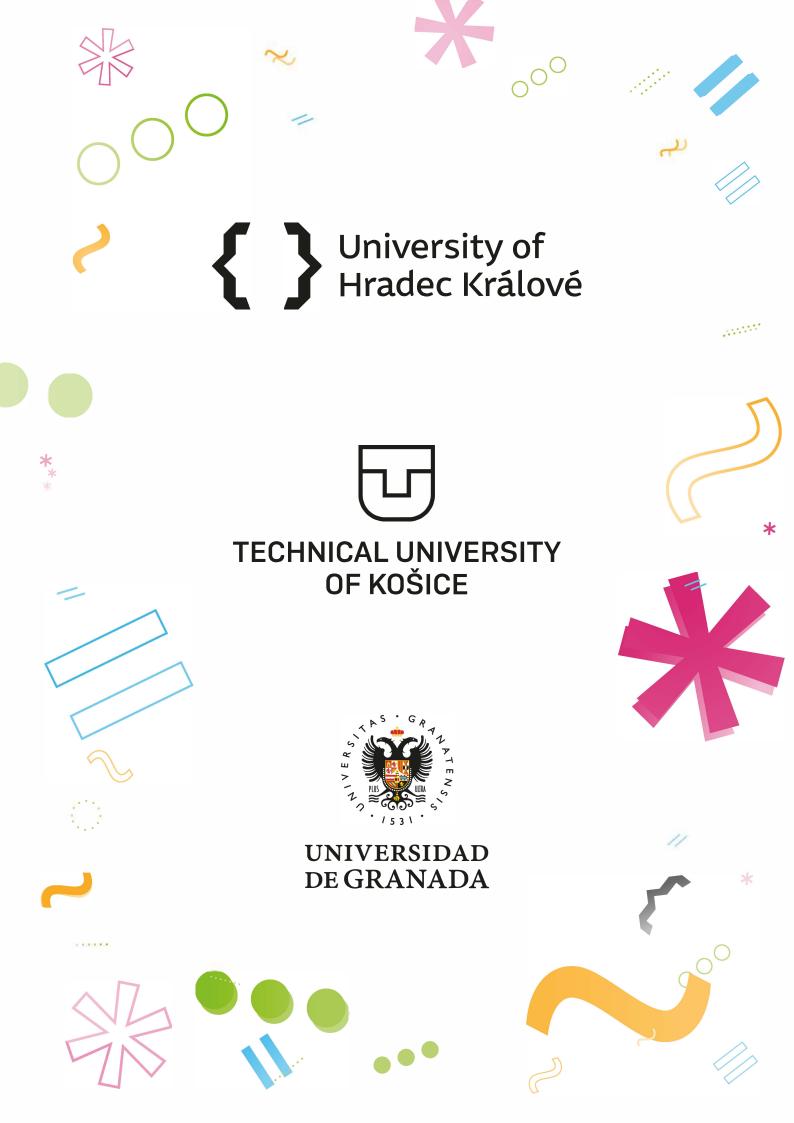






The curriculum of the course Technology transfer for students, academics, researchers and university staff





M01 Technology Transfer - Introduction

Introduction

Keywords

Key Concepts of Technology Transfer

Types of Technology Transfer
The Role of Intellectual Property in Technology Transfer
Motivations and Barriers of Technology Transfer
Key Actors in the Technology Transfer Process

Forms of Technology Transfer

Traditional Model of Technology Transfer

Technology Transfer Management, University and Business Perspective

Conclusion

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Key Actors of Technology Transfer

Forms of Technology Transfer

Traditional Technology Transfer Model

M02 Types of Outputs in the Industrial Property Rights

Introduction

Keywords

Intellectual Property Rights

Patents

Obtaining a Patent Utility Models

Industrial Designs

Obtaining an Industrial Design

Trademarks

Obtaining a Trademark

Trade Secrets

Advantages and Disadvantages of Various Types of IP

Filing a Patent Application, Good and Bad Practices

Conclusion

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Intellectual Property Rights

Obtaining a patent by PCT route

Madrid system of filing a trademark application

M03 Assessment of Feasibility

Introduction

Keywords

A feasibility study

Feasibility study structure

The feasibility study of a scientific research project

The proof of concept

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Factors of feasibility study

Feasibility study chain

State of change from proof of concept stage to implementation

M04 Introduction to Patent Search and Analysis

Introduction

Keywords

Description of the function of the invention

Sources of non-patent information

Market research

LENS.ORG Tool

ESPACENET

Example of the search

Content of the patent record

Search to verify patentability (original state of the art)

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Patent search window

Results from the patent search

Results from the patent searches according to the above criteria

Results from the patent search on Analysis

Patent Search Results - Inventors

Content of the patent record

Family Info

WIPO Pearl

Keyword search

Search using IPC classes

IPCCAT

Espacenet logo

Espacenet web

M05 Commercialization - spin off

Introduction, Keywords

Definition of spin-offs

Spin-off vs Spin-out

Spin-off vs start-up

The life cycle of start-up companies

Death Valley

Understanding the Death Valley Curve

Spin-out vs spin-in

Approaches

Advantages

Needs Analysis

Expected Impact and Risks

Conclusion

Reference

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The Valley of Death in Markham et al. (2010)

M05.1 Valuation

Introduction

Keywords

Valuation methods

Preparing for a valuation

Valuation of the IP asset – example

Conclusion

References

M06 Basic Characteristics and Establishment of the Company, Start-up

Introduction

Keywords

Introduction to Business

Economic System and Business Forms of Business Ownership Start-up Definition

How to Set Up a Business

Legal Forms
Process of Starting Business
Legal Obligations and Registrations

Financial Management

Importance of Economic Mindset for an Entrepreneur Financial Basics for Business Cost Calculations, Cash Flow and Taxes Basics of Financial Analysis

New Approaches to Enterprise Financing

Traditional Debt Finance Venture Capital Crowdfunding

Conclusion

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The Dynamic Business Environment Lifecycle of start-ups

M07 Business plan

Introduction

Keywords

Business Plan

What is a Business Plan

Purpose of the Business Plan

CANVAS methodology - Focus on the Essentials

Basic Parts of a Business Plan and Their Detailed Structuring

Financial Plan as an Integral Part of a Business Plan

What Should the Financial Plan Contain?
Calculations Suitable for the Financial Plan

Business Plan Annexes

Conclusion

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Product Life Cycle

M08 Project Management and Management of risks

Introduction

Keywords

Device Description and Specification

Project initialization

Project planning

Project implementation and management

Completion and evaluation of the project

Plan

Risk management

Terminological framework of risk management

Risk management process

Communication and consultation

Summary

Reference

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Stages of project implementation

Agile approach

Chart of planning phase

Chart of the organizational phase

Chart of the conference project

Relationship between basic terms in the field of risk management

Breakdown of threats into categories and areas

Scheme of the effect of threats on assets

Risk management process (adjusted according to ČSN ISO 31000: 2010)

Risk management options

M09 Technology Transfer Process at the University of Hradec Králové

Introduction

Keywords

Results of creative activity

The process of knowledge and technology transfer at UHK

The importance of knowledge and technology transfer

Abbreviations

References

Recommended literature

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Diagram of the sequence of steps after the creation of the result

A chart of commercialization steps

The University-Based Technological Innovation Process, adapted from (Lee, 1997)

Relationship between knowledge management and TT, adapted from (Anderton & Watson, 2018)

M10 Product Design

Introduction, Keywords

Device Description and Specification

The Rationale for the Qualification of the Product as a MD MD classification

Information to be Supplied by the Manufacturer

Label of the MD

The Instructions for Use

Design and Manufacturing Information

General Safety and Performance Requirements (SPRs)

Benefit-Risk Analysis and Risk Management

Benefit Risk Analysis Risk Analysis and Risk Management

MD Product Data, Verification and Validation

Pre-clinical and Clinical Data

Pre-clinical Safety of the MD

Software Verification and Validation

Stability, Including Shelf life

The Clinical Evaluation Plan

Summary of Safety and Clinical Performance (SSCP)

EU Declaration of Conformity

Quality Management Documentation

Technical Documentation on Post-Market Surveillance

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BUDI-DI, UDI-DI

Labelling

Risk Management

Verification and Validation