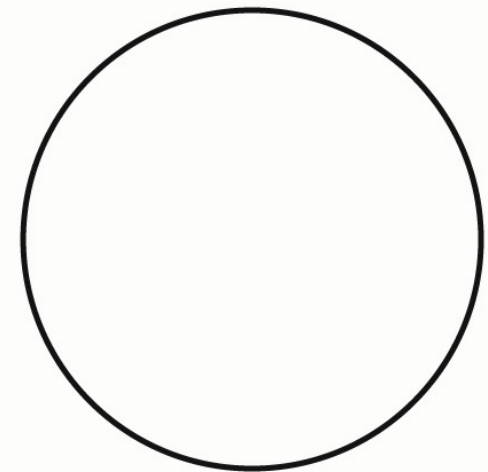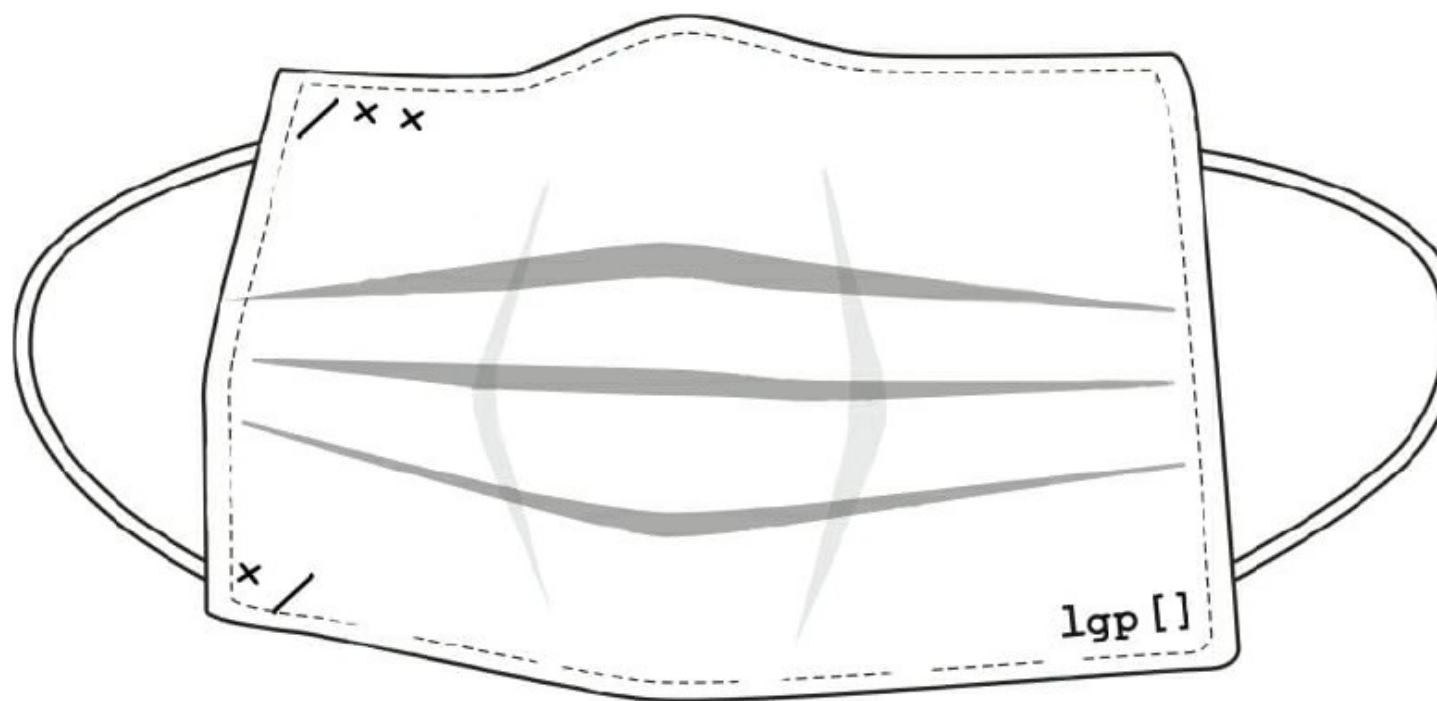/××

LGP [CHALLENGE]

LABORATÓRIO DE GESTÃO DE PROJETOS

2021/2022

COURSE UNIT PRESENTATION

LGP 2021-2022

OBJECTIVES, LEARNING OUTCOMES AND COMPETENCES

- Develop students' project management skills, team work, innovation and entrepreneurship skills in [software] projects.

- Students will be capable of solving a vast diversity of problems, which may happen in these projects.

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TEACHING METHODS AND LEARNING ACTIVITIES

- Theoretical component based on lectures and industry invited talks, discussing some themes covered in Software Engineering, namely the ones related to Project Management.

- Project-based classes with students organised in medium-sized multidisciplinary teams.

×/

PROGRAMME

1. PROJECT MANAGEMENT

- Project phases: launch, planning, monitoring and control, closure.

- Body of knowledge: project integration management, scope management, time management, cost management, quality management, human resources management, communication management, risk management, procurement management.

2. TEAM WORK

- Team work, management styles and team organisation, team building, leadership and coaching, personal communication, meetings management, negotiation and conflict management.

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3. METHODOLOGIES AND TOOLS

- Project management methodologies and organisation of software teams. Agile Methods. Project management tools and team work.

4. EXPERIMENTATION

- Application in real projects developed by medium-sized teams; application of methodologies and techniques.

5. INNOVATION & ENTREPRENEURSHIP

- Lean start-up and lean experimentation. Development and validation of business models (canvas). Customer development and the minimum viable product (MVP).

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SUGGESTED READINGS

- Class materials, articles and cases suggested in class

- W. Humphrey, TSP: Leading a Development Team, Addison-Wesley, 2006

- C. Jones, Software Engineering Best Practices, McGraw-Hill, 2010

- T. DeMarco, T. Lister, Peopleware: Productive Projects and Teams, 2nd Edition, Dorset House Publishing, 1999

- S. McConnell, Software Project Survival Guide: How to Be Sure Your First Important Project Isn't Your Last, Microsoft Press, 1997

- IEEE Guide Adoption of PMI Standard A Guide to the Project Management Body of Knowledge , IEEE , 2004

- W. Humphrey, PSP: A Self-Improvement Process for Software Engineers, Addison-Wesley, 2005

- W. Humphrey, T. Chick, W. Nichols, M. Pomeroy-Huff, Team Software ProcessSM (TSPSM) Body of Knowledge (BOK), July 2010, CMU/SEI-2010-TR-020, ESC-TR-2010-020, Software Engineering Process Management (http://www.sei.cmu.edu)

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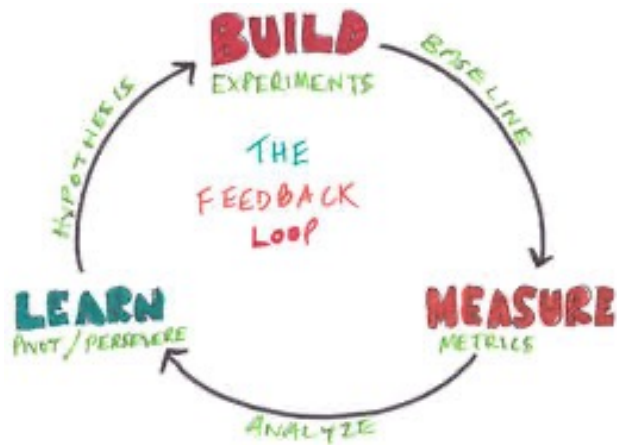
GRADING AND EVALUATION

- Type of assessment: Distributed evaluation without final exam

- Final Mark based on the assessment of students' participation and discussion in theoretical classes and on the work developed in laboratory practice classes. assessment will focus on the following aspects:

  - Project management (scope management, goals accomplishment, individual and team dynamic)

  - Product (value for the client, quality)

  - Communication and business development (presentations, client communication, promotion of ideas and products)

  - Attendance and participation in class and meetings (it will be kept a record and students' performance will be assessed)

- Assessment at the student and team/company levels.

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LGP PROCESS & ORGANIZATION

LGP 2021-2022

Kick-off Meeting ☞

TIME FOR REVIEW

BUILD
EXPERIMENTS
BASELINE
THE FEEDBACK LOOP
HYPOTHESIS
MEASURE
METRICS
LEARN
PIVOT/PERSEVERE
ANALYZE

/**

LGP [CHALLENGE]

        LINKING
        GREAT
        PARTNERS

*/

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launch

ideation

build – measure - learn

04/mar – 11/mar

18/mar – 22/apr

review

22/apr

22/apr – 10/jun

24/jun

challenge

15/jun

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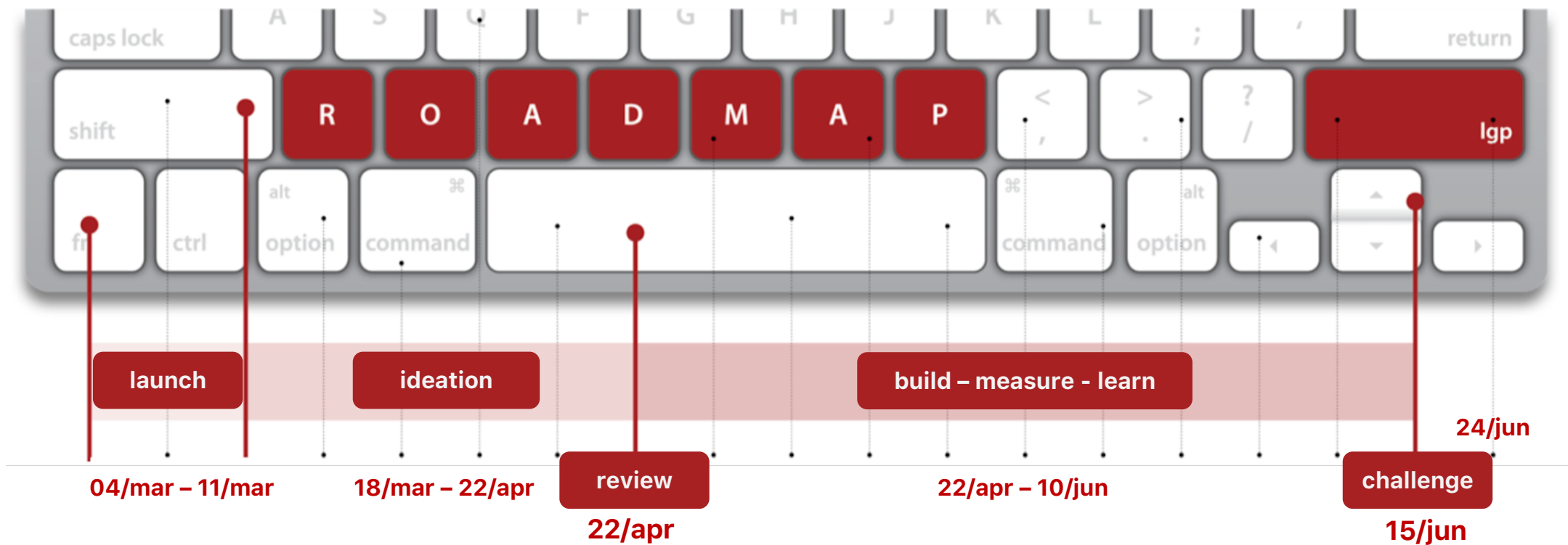
Phases	Dates			what		when	who	whom
Launch	4-Mar	11-Mar	2 weeks	CTO	Company/team Organisation	11-Mar	company	supervisor
				KoM	Kick-off Meeting	18-Mar		supervisor
Ideation	18-Mar	22-Apr	5 weeks	PC	Project Charter	25-Mar	company	supervisor
					...			
				PVP	Product Vision & Prototype (with documentation)	22-Apr	company	client / supervisor
Review		22-Apr		SD	Slide Deck for external evaluators (clients&investors)	22-Apr	company	public
					...			
				PMIR	Project Management Intermediate Report	29/04/2022	company	supervisor
Build - Measure - Learn	29-Apr	10-Jun	6 weeks	CMPK	Company Media Press Kit	27-May	company	public
					...			
				MVP	Minimum Viable Product	10-Jun	company	client / supervisor
LGP Challenge		15-Jun		CPMM	Company & Products Marketing Material	15-Jun	company	public
				SD 2.0	Slide Deck for external evaluators (clients&investors)	15-Jun	company	public
Closure		24-Jun		PIMP	Product Installation and Maintenance Packages	24-Jun	company	client
					...			
				PF	Project Folder (containing all artefactcs)	24-Jun	company	supervisor

243 students
20 projects
24 LGP Startup Companies

shift	2	0	2	2	B	N	M	< ,	> .	? /	lgp

M.EIC	**MM**	**MESW**	**MESG**	**LDC**
146	**53**	**17**	**21**	**6**

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LGP COMPANIES & PROJECT TEAMS

- Students allocated to LGP Startup Companies (#20 LGP - SC)

- Projects assigned to LGP SC

- LGP Startup Companies "forming & storming"

  - Roles and responsibilities must be assigned

STARTUP ROLES AND PERSONALITIES*

- The Dreamer (often the chief executive officer - CEO): their passion and vision can lead the project, either because they started it - or because they are absolutely the right person for it.

- The Visionary: business vision falls on the shoulders of the chief product officer (CPO); their role is to inspire team members based on the dream, making goals a reality.

- The Doer: a role often taken on by the chief technical officer (CTO); it's their job to understand and meet technical challenges.

- The Hustler: hustling is synonymous here with networking, selling, and generally driving the product forward through usage.

- The Growth Hacker: a strategic thinker who is both analytical and creative; understands marketing and how to create traction by understanding what users want and how to give it to them.

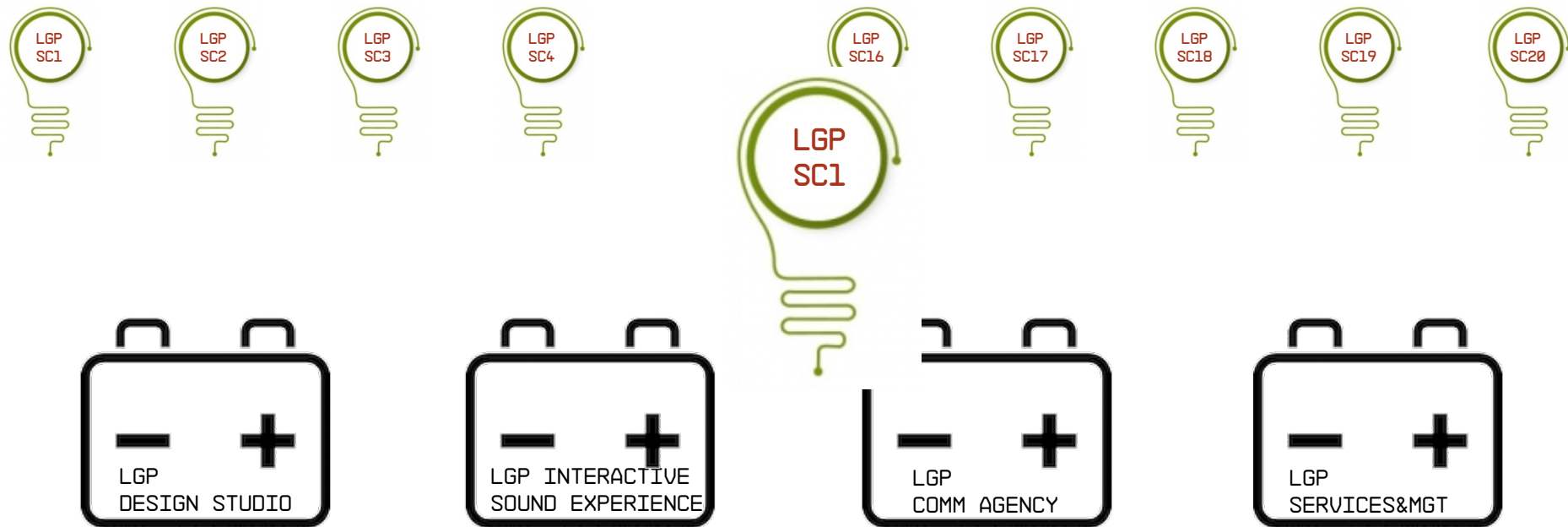* ADAPTED FROM HTTPS://BLOG.THENORDICHUB.COM/POST/DEFINE-ROLES-STARTUP-TEAM

LGP STARTUP COMPANY FORMING & STORMING

- Responsibilities might be defined latter.

- Each LGP SC will assign responsibilities (management roles) to all its members; these are independent of the technical tasks and are related to the project management knowledge areas.

- For each role/responsibility, two team members must be identified.

suggestions

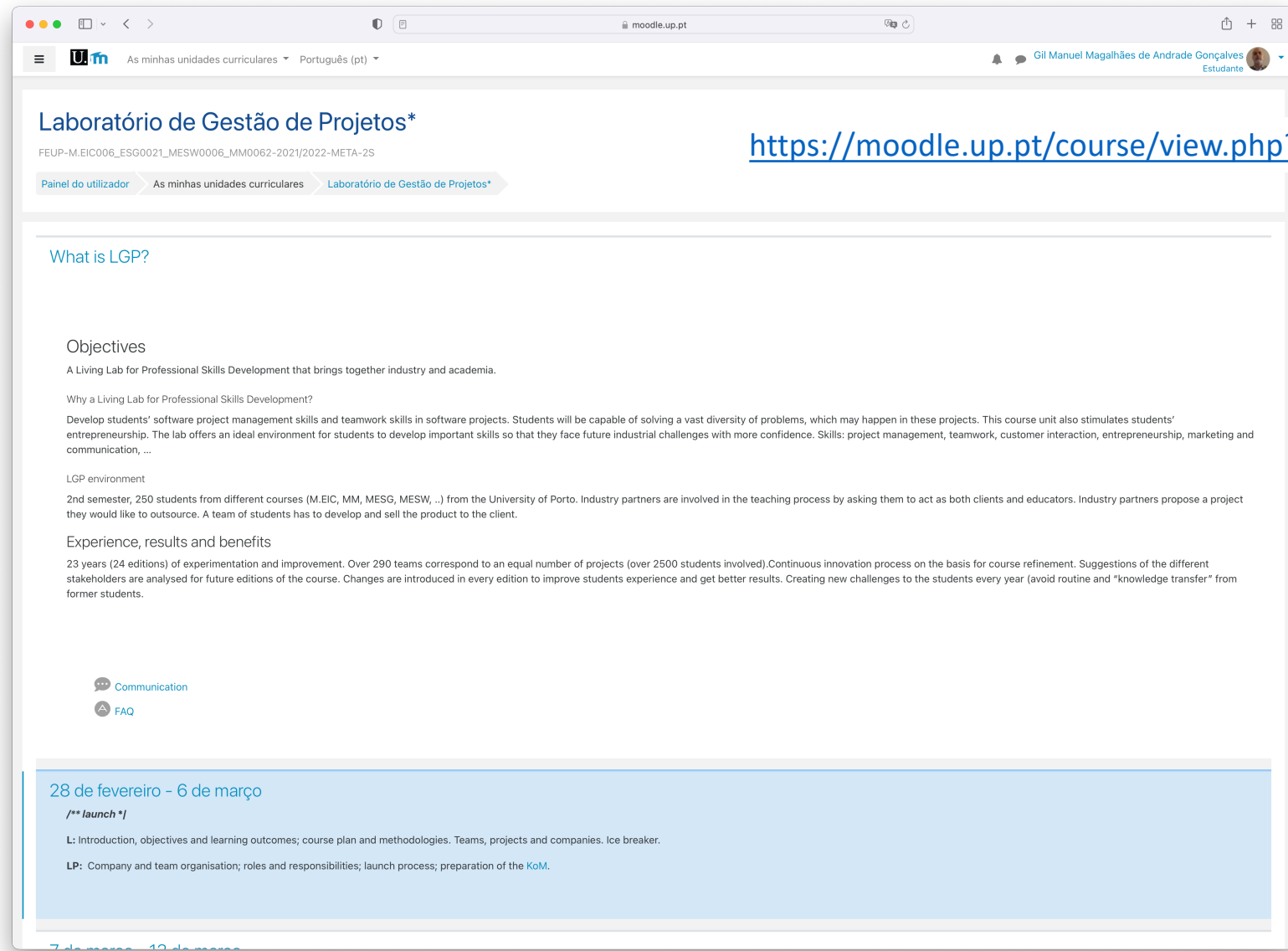| Project Management Roles |
|---|
| **Planning manager** – responsible for tracking the plan. |
| **Quality manager** – responsible for tracking the quality plan. |
| **Process manager** – responsible for ensuring process discipline and for process improvement. |
| **Support manager** – responsible for ensuring that support needs are met and for configuration management. |
| Technical Management Roles |
| **Customer interface manager** – responsible for the interface to the customer or customer representative. |
| **Design manager** – responsible for the design practices and quality. |
| **Implementation manager** – responsible for implementation practices and quality. |
| **Test manager** – responsible for test practices and quality. |

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LGP ECOSYSTEM

LGP
SC1

LGP
SC2

LGP
SC3

LGP
SC4

LGP
SC16

LGP
SC17

LGP
SC18

LGP
SC19

LGP
SC20

LGP
SC1

LGP
DESIGN STUDIO

LGP INTERACTIVE
SOUND EXPERIENCE

LGP
COMM AGENCY

LGP
SERVICES&MGT

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À TONA

LGP DESIGN STUDIO

LGP COMPANIES, TEAMS AND PROJECTS

LGP 2021-2022

Company	Company	Project	Client	Supervisor	Room
	LGP - SC1	ThermalTrace	INOVA+	HSF	B332
	LGP - SC2	CUSTEASY - Making Customs Processes easier	CUSTEASY, Lda	RMA	B330
	LGP - SC3	Green Financial Exchange	Deloitte	TBS	B336
	LGP - SC4	Jumpseller Mobile POS	Jumpseller	TBS	B336
	LGP - SC5	Portfolio Prioritisation Solution	Vestas Wind Systems	GG	B229
	LGP - SC6	Reconstituição virtual de um cenário - A viagem de D. Beatriz de Portugal (1504-1538), Duquesa de Saboia	Universidade do Porto - Faculdade de Letras	NM	B222
	LGP - SC7	zerozero radiobot	zerozero.pt	RSN	B331
	LGP - SC8	Criação de DASHBOARD, para colocação em vários pontos de interesse na fábrica, com passagem de indicadores e notícias internas	A.Henriques II, SA	GG	B229
	LGP - SC9	Fashable at Metaverse	Fashable (http://fashable.ai/), XNFY Lab spin-off	RSN	B331
	LGP - SC10	MES Virtual Assistant	Critical Manufacturing	RMA	B330
	LGP - SC11	Electrica Imperium	DEUS.AI	HSF	B332
	LGP - SC12	LINHA DO TEMPO FEUP: desenvolvimento (funcionalidades e interface)	FEUP - FEUPmuseu	ACP	B318
	LGP - SC13	Talkdesk Agent on Metaverse - Metaverse Call Center	Talkdesk	TBS	B336
	LGP - SC14	AutoRocket+	Associação Visionarium/Aventuresca -	HSF	B332
	LGP - SC15	IDEA | Interactive Defect inspEction in Automotive industry	Stellantis	RSN	B331
	LGP - SC16	TRAIN4.0 AR/VR Cockpit	Nomadtech	RMA	B330
	LGP - SC17	CheapShop	N/A	ACP	B318
	LGP - SC18	Erasmus Helper	N/A	GG	B229
	LGP - SC19	Interactive Sound Experience	N/A	LFT	B220
	LGP - SC20	Services for well being	N/A	JGT	B334

ACP	Ana Cristina Paiva
GG	Gil Gonçalves
HSF	Hugo Sereno Ferreira
JGT	Jorge Grenha Teixeira
LFT	Luís Teixeira
NM	Nuno Moutinho
RMA	Rui Maranhão
RSN	Rui Neves
TBS	Tiago Sousa

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Laboratório de Gestão de Projetos*

FEUP-M.EIC006_ESG0021_MESW0006_MM0062-2021/2022-META-2S

https://moodle.up.pt/course/view.php?id=4843

What is LGP?

Objectives

A Living Lab for Professional Skills Development that brings together industry and academia.

Why a Living Lab for Professional Skills Development?

Develop students' software project management skills and teamwork skills in software projects. Students will be capable of solving a vast diversity of problems, which may happen in these projects. This course unit also stimulates students' entrepreneurship. The lab offers an ideal environment for students to develop important skills so that they face future industrial challenges with more confidence. Skills: project management, teamwork, customer interaction, entrepreneurship, marketing and communication, …

LGP environment

2nd semester, 250 students from different courses (M.EIC, MM, MESG, MESW, ..) from the University of Porto. Industry partners are involved in the teaching process by asking them to act as both clients and educators. Industry partners propose a project they would like to outsource. A team of students has to develop and sell the product to the client.

Experience, results and benefits

23 years (24 editions) of experimentation and improvement. Over 290 teams correspond to an equal number of projects (over 2500 students involved).Continuous innovation process on the basis for course refinement. Suggestions of the different stakeholders are analysed for future editions of the course. Changes are introduced in every edition to improve students experience and get better results. Creating new challenges to the students every year (avoid routine and "knowledge transfer" from former students.

💬 Communication

🔺 FAQ

28 de fevereiro - 6 de março

/ launch **/**

L: Introduction, objectives and learning outcomes; course plan and methodologies. Teams, projects and companies. Ice breaker.

LP: Company and team organisation; roles and responsibilities; launch process; preparation of the KoM.

7 de março - 13 de março

COMING NEXT

15:45 LGP ICEBREAKER

16:00 LGP STARTUP COMPANIES MEETINGS
     (FORMING & KOM PREPARATION)

16:00 MEETINGS WITH MM & MESG

* CHECK MOODLE FOR THE ROOMS

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