| Overview - Technology-based Entrepreneurship Course (TEC) |
|---|
| Aim to foster researchers, who can develop the creative research and idea with a global prospective for the needs of society. In the course, students learn required mind-set, knowledge and skill for innovation in the academic and industrial sectors.<br>Master courses: TEC (1)<br>Doctor courses: TEC I- IV (10) |

**For Masters**

| | | Style / Language |
|---|---|---|
| TEC | Students learn the importance of advanced researchers for promoting innovation to achieve industrial development and basic matters of technology management through the lecture by the former corporate executives, the staffs of Center for advanced education of entrepreneurship and innovation and business entrepreneurs/researchers/managerial educators. Additionally, learn the concept of research in a company and the necessity/importance of technology management, as well as know the ability necessary for the company researchers and learn how to extend the talents.<br>Lectures in omnibus format are carried out the following subjects:<br>- Necessity of innovation<br>- Expectations to researchers in companies<br>- Entrepreneurship and starting a business<br>- Corporate strategy and research strategy<br>- Research development management for commercialization<br>- Necessary ethics and knowledge for product developers<br>- Intellectual property and its strategy<br>- Business planning and research design | Lectures<br><br>Japanese<br>English |

**For Doctors**

| | | Style / Language |
|---|---|---|
| TEC I<br><br>Business Planning Exercise | This course aims to enhance business planning skill for high level of academic research result to link to the development and innovation of new industries.<br>Develop the ability to design research strategy and to link their research result to innovation, by creating the plans developing the technology seeds required from research result to business. | Exercise<br><br>Japanese<br>English |
| TEC II-A<br><br>**Management of Technology** | Learn the basic knowledge of MOT (Management of Technology) necessary for corporate researchers. Through the case studies of scientific technology in US, learn about necessity of innovation, human capital, value creation by e-learning and workshop.<br>- What is innovation<br>- Human capital<br>- Innovation eco system :The Rainforest<br>- The value proposition<br>- I-Corps style workshop | E-learning & workshop<br><br>English |
| TEC II-B<br><br>**Management of Technology Exercises** | Learn about the concept and process of commercialization and the industrialization for the result of advanced science and technology research, as practical exercises based on some cases. Lectures and seminars by inviting the personnel from consulting companies, under the following subjects:<br>- MOT and technical consultant<br>- Developed products and functions<br>- Ideas for making products to sell<br>- Thinking of hearing to customers<br>- Challenge to R&D<br>- Commercialization of research and development results<br>- Thinking about usage and function<br>- Concept design of products<br>- Combination of design and function<br>- Time schedule for commercialization | Lectures & exercise<br><br>Japanese |

| | | |
|---|---|---|
| TEC II-C<br><br>**Intellectual Property Plan** | Focus on the novelty and inventive step of patents, acquire "how to make strong patents" by utilizing national patent office databases. Introducing the companies which achieved the competitive advantage of a business.<br>- What are strong patents in business world<br>- Conflict: Novelty and inventive step of patent<br>- How to make strong patents (cases in US, EU)<br>- Exercise (making, searching patents) | Lectures & exercise<br><br>Japanese |
| TEC II-D<br><br>**Idea Creation** | Through the several method of design thinking and creative development technique, acquire the way of thinking for new business creation.<br>- Design thinking<br>- Brainstorming<br>- W type model<br>- Market research<br>- Value proposition<br>- Technical method(KJ /Matrix)<br>- Business Model Canvas | Lectures & exercise<br><br>Japanese |
| TEC II-E<br><br>**Management & Marketing** | Business strategy with appropriate planning based on the data and information is essential to ensure the business and projects proceed smoothly and accurately. Learn practical management and marketing knowledge through exercises and group work.<br>- Decision Making Analysis by AHP<br>- Decision Making Analysis by consumer behaviours<br>- Evaluation by DEA<br>- Comparison by SWOT<br>- Business opportunity recognition and domain setting<br>- Business model<br>- Platform businesses | Lectures & exercise<br><br>Japanese<br>English |
| TEC II-E2<br><br>**Management & Marketing** | Through the Technology Marketing Game “Mark Start” , a marketing simulation software, learn about business strategy and management and get a feedback “how you made the most of the strategies in the markets” through group competition.<br>- What is your marketing strategy?<br>- Market research<br>- Conflict companies<br>- Reflection strategy<br>- Decision-making | Lectures & Group work<br><br>English |
| TEC II-F<br><br>**Venture Business and Entrepreneurship Basic** | Study the following necessary basic knowledge for the Venture Business and Entrepreneurship. Recommend to take “TECII-G” after completion of this course.<br>- What is management – action to achieve result<br>- Leadership<br>- Task management<br>- Business strategy<br>- Competitors analysis<br>- Analysis (Account/Break-even)<br>- Capital fund | Lectures (e-learning)<br><br>Japanese<br>English |

| | | |
|---|---|---|
| TEC II-G<br><br>**Venture Business** | Learn mainly required knowledge, skill and mind for entrepreneurship and the creation and management of new business in companies. Aim to brush up the business plan.<br>- What is a venture company - mile stone of growth<br>- Business planning/innovation<br>- Competitors analysis and marketing<br>- Financial statements<br>- Venture capital<br>- Corporate value proposition<br>- Shift changing<br>- The way to EXIT<br>- Can Ventures save Japan?<br>- Ventures in the big companies.<br>- Group work: Lean LanchPad<br><br>Should be done “TECII- F” before starting this course. | Lectures & exercise<br><br>Japanese English |

| | | |
|---|---|---|
| TEC II-H<br><br>**Leadership** | Learn the way of leadership required to the research leaders for promoting innovation to achieve industrial development through the actual practice, and foster leadership sense. Additionally, learn the management skills promoting the project smoothly.<br>- Basic Presentation<br>- Leadership<br>- Project management | Lectures & exercise<br><br>Japanese English |

| | |
|---|---|
| TEC III<br><br>**Internship (3-month)** | This course first offers an introductory lecture that explains the importance of fostering advanced researchers for promoting innovation to achieve industrial development, followed by pre-internship lectures on special topics, such as the business and research etiquette required in companies, compliance, and intellectual property strategies. While engaging in research activities as an intern at their host organization, students learn firsthand what industrial R&D is like, as well as the need and importance of the management of technology. Corporate internships also offer participants the opportunity to find a potential career path in a field different from their field of specialization. Internship placements are arranged by Center for advanced education of entrepreneurship and innovation, an inter-university organization that has assisted over 150 doctoral students in finding host companies. |

| | |
|---|---|
| TEC IV<br><br>**Training for future R&D leader** | After the lecture that explains the importance of advanced researchers promoting innovation to achieve industrial development, students acquire the abilities required of research leaders through seminars on management-level business skills followed by the lecture of the feature of corporate research and practical training including market research, the drafting of research plan and budget, the organizing of teams, progress management of research, etc., under proposing assignment from companies. The students can develop the abilities required for corporate research leaders. |

# TEC II Venue & Time Tables

| | Date | Time | Venue | Lecturer | |
|---|---|---|---|---|---|
| **TECII-A** | 7/1-10/28 | - | e-learning | Robert.G.Frank | Professor(former president), University of New Mexico |
| | 10/28 | 14:35 - 17:45 | WK102, B4 | Eri Hoshi | Ventures manager, STC.UMN Int.Univ. Lecturer, UNM Innovation Academy |
| | 11/20 | | | | |
| **TECII-B** | 7/1-10/15 | - | e-learning | Yasushi Kanegae | Senior manager, PwC consulting |
| | 10/15 | 14:35 - 17:45 | WK102, B4 | | |
| | 10/29 | | | | |
| **TECII-C** | 10/1 | 14:35 - 16:05 | 329, A6 | Yoshiro Akagi | Director,URA center, OPU (former SHARP Co.,Ltd. executive) |
| | 10/8 | | | | |
| | 10/22 | | | | |
| | 11/5 | | | | |
| | 11/12 | | | | |
| | 11/19 | | | | |
| | 11/26 | | | | |
| | 12/3 | | | | |
| **TECII-D** | 8/28 | 14:35 - 17:45 | WK102, B4 | Takashi Osawa | Marketing Director, Partners Co.,Ltd. |
| | 9/4 | | | | |
| | 9/18 | 14:35 - 17:45 | WK102, B4 | Shu Shiino | R&D Unit Leader, Bridgestone Co.,Ltd. |
| | 9/25 | 14:35 - 17:45 | WK102, B4 | Tadashi Hirose | Project Professor, OPU (former HITACHI Co.,Ltd executive) |
| **TECII-E** | 10/19 | 14:35 - 16:05 | WK102, B4 | Kazuko Morisawa | Professor, Engineering, OPU |
| | 10/26 | | | | |
| | 11/9 | | | | |
| | 11/16 | | | | |
| | 11/28 | 12:55 - 16:05 | WK102, B4 | Takeshi Ajiro | Asst Professor,Takushoku Univ. |
| | 11/30 | | | | |
| **TECII-E2** | TBA (Second semester) | | 329, A6 (remoted by Kyushu Univ.) | Hiromi Yamada | Lecturer,QREC, Kyushu Univ. |
| **TECII-F** | 7/1- 10/20 | - | e-learning | Tadashi Hirose | Project Professor, OPU (former HITACHI Co.,Ltd executive) |
| **TECII-G** | 10/20 | 14:35 - 17:45 | Learning commons, A6 | Tadashi Hirose | Project Professor, OPU (former HITACHI Co.,Ltd executive) |
| | 10/27 | | | | |
| | 11/17 | | | | |
| | 11/24 | | | | |
| **TECII-H** | 6/30-7/13 | - | e-learning | Yasushi Koyabu | Panasonic Corporation |
| | 7/14-7/27 | - | e-learning | Ian Roth,Ph.D. | Lecturer,Author,and Coach,Meijyo Univ. |
| | 6/29 | 14:35 - 17:45 | WK102, B4 | Yasushi Koyabu | Panasonic Corporation |
| | 7/3 | 14:35 - 17:45 | WK102, B4 | Hideo Narimatsu | Project Management Institute |
| | 8/19 | 14:35 - 17:45 | WK102, B4 | Ian Roth,Ph.D. | Lecturer,Author,and Coach,Meijyo Univ. |