

Syllabus

1. Program information

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| 1.1. Institution | THE BUCUREST UNIVERSITY OF ECONOMIC STUDIES |
| 1.2. Faculty | Business Administration in Foreign Languages |
| 1.3. Departments | Department of Business Administration in foreign languages (UNESCO chair) |
| 1.4. Field of study | Business Administration |
| 1.5. Cycle studies | Master Studies |
| 1.6. Education type | Full-time |
| 1.7. Program study | Digital Business and Innovation |
| 1.8. Language study | English |
| 1.9. Academic year | 2020-2021 |

2. Course information

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|-----------------------|--|---------------|----------|----------------------|-------------|------------------|----------------------|------------------|----------|
| 2.1. Name | The Economics of Information: Strategy, Structure and Pricing | | | | | | | | |
| 2.2. Code | | | | | | | | | |
| 2.3. Years of studies | 1 | 2.4. Semester | 1 | 2.5. Assessment type | Exam | 2.6. Course type | O (Mandatory) | 2.7. No. of ECTS | 6 |
| 2.8. Instructors | Shahrazad Hadad | | | | | | | | |

3. Total estimated time

| | | | |
|---|--------|----------|-------|
| 3.1. Number of weeks | 14.00 | | |
| 3.2. Number of hours per week | 2.00 | of which | |
| | | C (C) | 1.00 |
| | | S (S) | 1.00 |
| 3.3. Total hours from curriculum | 28.00 | of which | |
| | | C (C) | 14.00 |
| | | S (S) | 14.00 |
| 3.4. Total hours of study per semester (ECTS*25) | 150.00 | | |
| 3.5. Total hours of individual | 122.00 | | |
| Time distribution for individual study | | | |
| Study the textbook, course support, bibliography and notes | 45.00 | | |
| Further reading in the library, on the online platforms and field | 45.00 | | |
| Preparing seminars, labs, homework, portfolios and essays | 24.00 | | |
| Tutoring | 3.00 | | |
| Examinations | 4.00 | | |
| Other activities | 1.00 | | |

4. Prerequisites

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| 4.1. About curriculum | Basic knowledge of: - Marketing - Strategic management - Digital economy |
| 4.2. About skills | - Interpretation of relations between the company and the business environment it activates - Using adequate methods for problem analysis - Elaboration of adequate pricing strategies - Comprehensive analysis of businesses for improving strategy, structure and pricing |

5. Requirements

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| for C(C) | The lectures will be held in a room equipped with teaching multimedia and connected to the internet. |
| for S(S) | The lectures will be held in a room equipped with teaching multimedia and connected to the internet. |

6. Skills covered

| | | |
|---------------|----|---|
| Professionals | C1 | Identification, in-depth analysis, interpretation and development of concepts within the business administration field, in correlation with information technology trends |
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7. Course objective

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| 7.1. General objective | - The general objective of this course is to explore some of the economics of information and understand how they affect strategy, structure and pricing in the context of the present ecosystem. The course aims to raise the awareness regarding the relationship between technology and humans and the way they can strictly function as an ensemble. |
| 7.2. Specific objectives | - Developing and acquiring knowledge about economics and information in the current mix of the ecosystem - Developing and acquiring about the relationship between the mind and the machine - Developing knowledge on how to establish the adequate pricing policy of a specific product, service, or combination - Reflecting the changes in the structure and strategy of a company given technological advancements - Developing the ability of identifying new competitive advantages in the digital economy |
| 7.3 Course perspective and description | Information, especially digital information, is different in many ways from other goods and services. Yet information is still subject to the laws of economics. We will use lectures, cases, class discussion, guest speakers, exercises, and team projects to examine a variety of topics including: the pricing of information goods, bundling and other forms of aggregation, open source and |

| | |
|--|--|
| | <p>innovation, search and competition, targeted advertising, information analytics, social networks and information worker productivity, business process replication, and a variety of other topics. Fundamental economic principles will be illustrated using business case studies. At times, we will also discuss emerging digital technologies, business methods and industry structures.</p> <p>Rapid and radical changes inevitably create opportunities for great wealth creation – and destruction. Business leaders empowered with knowledge of the underlying economic, business and technological principles will be at an advantage in such an environment.</p> |
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8. Course contents

| 8.1. C(C) | | Teaching methods | Advices |
|-----------|--|---|--------------|
| 1 | The Economics of Information and Industrie 4.0 | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | |
| 2 | Mind and Machine 1: Strengths and weaknesses of each | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | 1 pager memo |
| 3 | Mind and Machine 2: The arrival of artificial intelligence Differential prices and signaling | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | 1 pager memo |
| 4 | Product and Platform 1: Free, perfect, and instant multi-sided networks - Bundling and aggregation | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | 1 pager memo |
| 5 | Product and Platform 2: Platforms and atoms (Search and competition) | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | |
| 6 | Mind and Machine 3: In-class debate: “Overall, AI is going to make things worse” | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | |
| 7 | Differential pricing, signaling and screening | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | 1 pager memo |

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| 8 | Product and Platform 3: Using platforms to influence behavior – Open source and innovation | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | |
| 9 | Product and Platform 4: Fake news and misinformation | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | 1 pager memo |
| 10 | Core and Crowd 1: Distributed expertise | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | 1 pager memo |
| 11 | Core and Crowd 2: The implications of the blockchain | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | 1 pager memo |
| 12 | In-class debate: “The government needs to rein in big tech” | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | |
| 13 | Digital transformation in emerging markets | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | 1 pager memo |
| 14 | Future of information economy and Conclusions | - lectures and student involvement in lectures with questions, comments, examples; - interactive presentations, debates, simulations, mini-case studies; | |

Bibliography:

I Strongly Suggested

1. Shapiro, Carl, and Hal Varian. Information Rules: A Strategic to the Network Economy. Cambridge, MA: Harvard Business School Press, 1998. ISBN: 9780875848631.
2. Brynjolfsson, Erik, and Adam Saunders. Wired for Innovation: How Information Technology is Reshaping the Economy. Cambridge, MA: MIT Press, 2009. ISBN: 9780262013666.

II Optional

1. Saloner, Garth, and A. Michael Spence. Creating and Capturing Value: Perspectives and Cases on Electronic Commerce. New York, NY: John Wiley & Sons, 2001. ISBN: 9780471410157.
2. Brynjolfsson, Erik, and Brian Kahin, eds. Understanding the Digital Economy. Cambridge, MA: MIT Press, 2000. ISBN: 9780262024747.
3. Liebowitz, Stan. Re-Thinking the Network Economy: The True Forces that Drive the Digital Marketplace. New York, NY: American Management Association, 2002. ISBN: 9780814406496.

4. Varian, Hal, Joe Farrell, and Carl Shapiro. *The Economics of Information Technology: An Introduction*. Cambridge, UK: Cambridge University Press, 2005. ISBN: 9780521605212.

Elaborated bibliography per chapter

SES # TOPICS READINGS

1 The economics of information

Required

McAfee, Andrew, and Erik Brynjolfsson. "Investing in the IT That Makes a Competitive Difference." *Harvard Business Review Magazine*, July-August 2008.

———. "Dog Eat Dog: Industries That Buy a Lot of Technology Are Becoming as Cutthroat as Those That Produce Technology." *Wall Street Journal* (April 28, 2007).

Optional

"Technology, Innovation and Productivity in the Information Age." Chapter 1 in [B&S].

"The Information Economy." Chapter 1 in [S&V].

Stiglitz, Joseph E. "The Contributions of the Economics of Information to Twentieth Century Economics." *Quarterly Journal of Economics* 115, no. 4 (2000): 1441-78.

2 Mind and Machine 1: Strengths and weaknesses of each

Required

Eisenmann, Thomas, and Lars P. C. Nielsen. "Sermo, Inc." Harvard Business School Case. Boston, MA: Harvard Business School Publishing. Case: 809142-PDF-ENG, April 10, 2009.

"Networks and Positive Feedback." Chapter 7 in [S&V], pp. 175-225.

Optional

Economides, Nicholas. "The Economics of Networks." *International Journal of Industrial Organization* 16, no. 4 (1996): 673-99.

Buy at Amazon Leibowitz, Steven, and Steve Margolis. "Network Externalities (Effects)." *The New Palgrave Dictionary of Economics and the Law*. New York, NY: Macmillan, 1998. ISBN: 9781561592159.

3 Differential pricing, signaling and screening

Required

Varian, Hal. "Buying, Sharing, and Renting Information Goods." *The Journal of Industrial Economics* 48, no. 4 (2000): 473-88.

Schoder, Detlef, and Alex Talalayevsky. "The Price Isn't Right." *Wall Street Journal* (August 23, 2010).

Miller, Evan. "Golden Footballs and the Economics of Groupon."

Hamermesh, Daniel. "What Do Books and Roses Say About Discounting?" *New York Times*, February 23, 2009.

Wertheimer, Linda. "New Pricing Plan Soon to Be for Online Music." *National Public Radio*, July 27, 2009.

Optional

"Pricing Information." Chapter 2 in [S&V].

"Versioning Information." Chapter 3 in [S&V].

Buy at MIT Press Buy at Amazon Tirole, Jean. *The Theory of Industrial Organization*. Cambridge, MA: MIT Press, 1988, chapter 3, pp. 133-152. ISBN: 9780262200714.

Shiller, Ben, and Joel Waldfoegel. "Music for a Song: An Empirical Look at Uniform Song Pricing and its Alternatives." Working Paper. Philadelphia, PA: Wharton School, University of Pennsylvania, June 17, 2008.

4 Product and Platform 1: Free, perfect, and instant multi-sided networks - Bundling and aggregation

Required

Brandenburger, Adam, and Krishna Vijay. "Bundling." Harvard Business School Case. Boston, MA: Harvard Business School Publishing. Case: 9-191-177, April 10, 1995.

Buy at MIT Press Buy at Amazon Bakos, Yannis, and Erik Brynjolfsson. "Aggregation and Disaggregation of Information Goods: Implications for Bundling, Site Licensing and Micropayment Systems." In *Internet Publishing and Beyond: The Economics of Digital Information and Intellectual Property*. Edited by Hal Varian, and Brian Kahin. Cambridge, MA: MIT Press, 2000. ISBN: 9780262611596.

Albanesius, Chloe. "If Sirius-XM Can Offer A La Carte Programs, Why Can't Cable?" *PC Magazine*, July 30, 2008.

Optional

Bakos, Yannis, and Erik Brynjolfsson. "Bundling and Competition on the Internet." *Marketing Science* 19, no. 1 (2000): 63-82.

———. "Bundling Information Goods: Pricing, Profits and Efficiency." *Management Science* 45, no. 12 (1999): 1613-1630.

5 Product and Platform 2: Platforms and atoms (Search and competition)

Required

Buy at MIT Press Buy at Amazon Smith, Bailey, and Erik Brynjolfsson. "Understanding Digital Markets." In *Understanding the Digital Economy*. Edited by Erik Brynjolfsson, and Brian Kahin. Cambridge, MA: MIT Press, 2000. ISBN: 9780262024747.

Optional

Bakos, Yannis. "Reducing Buyer Search Costs: Implications for Electronic Marketplaces." *Management Science* 43, no. 12 (2000): 1676-1692.

Brynjolfsson, Erik, and Michael D. Smith. "Frictionless Commerce? A Comparison of Internet and Conventional Retailers." *Management Science* 46, no. 4 (2000): 563-585.

6 Two-sided networks and platform competition

Required

Edelman, Benjamin, and Ian I. Larkin. "eBay Partner Network (A)." Harvard Business School Case. Boston, MA: Harvard Business School Publishing. Case: 910008, August 11, 2010.

Optional

Arthur, W. Brian. "Increasing Returns and the Two Worlds of Business." *Harvard Business Review Magazine*, July-August 1996.

7 Pricing at zero

Required

Anderson, Chris. "Free! Why \$0.00 Is the Future of Business." *Wired Magazine*, February 25, 2008.

Parker, Geoffrey, and Marshall W. Van Alstyne. "Two-Sided Network Effects: A Theory of Information Product Design." *Management Science* 51, no. 10 (2005): 1494-1504.

Gladwell, Malcolm. "Priced to Sell: Is Free the Future?" *The New Yorker*, July 6, 2009.

Pulley, Brett, and Andy Fixmer. "Diller Calls Free Web Content a Myth, Joins Refrain." *Bloomberg News*, July 24, 2009.

Rich, Motoko. "With Kindle, the Best Sellers Don't Need to Sell." *New York Times*, January 22, 2010.

Optional

Eisenmann, Thomas, Geoffrey Parker, and Marshall W. Van Alstyne. "Strategies for Two-Sided Markets." *Harvard Business Review Magazine*, October 2006.

Chapters 5 and 6 in [S&V].

Chapters 2 and 7 in [B&S].

8 Amazon

Required

Siegel, Micah, and Fred Gibbons. "Amazon Enters the Cloud Computing Business." Stanford University School of Engineering Case. Palo Alto, CA: Stanford University. Case: 2008-353-1, May 20, 2008.

Optional

Stone, Brad. "Can Amazon be the Wal-Mart of the Web?" *New York Times*, September 20, 2009.

Wilke, Jeff. "Geeking Out at Amazon." *Technology Review*, November-December 2007.

9 Targeted advertising: Google

Required

Edelman, Benjamin, and Thomas Eisenmann. "Google Inc." Harvard Business School Case. Boston, MA: Harvard Business School Publishing. Case: 910036-PDFENG, January 28, 2010.

Levy, Steven. "Secret of Googlenomics: Data-Fueled Recipe Brews Profitability." *Wired Magazine*, May 22, 2009.

Optional

Varian, Hal. "The Economics of Internet Search." Anglo Costa lecture. Rome, Italy, February 2007. (This resource may not render correctly in a screen reader.PDF)

10 Measurement, analytics, and experimentation

Re-read: Levy, Steven. "Secret of Googlenomics." *Wired Magazine*, May 22, 2009.

11 The long tail

Required

Anderson, Chris. "The Long Tail." *Wired Magazine*, October 2004.

Brynjolfsson, Erik, Yu (Jeffrey) Hu, and Michael D. Smith. "Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety at Online Booksellers," *Management Science* 49, no. 11 (2003): 1580-1596.

Optional

Brynjolfsson, Erik, Yu (Jeffrey) Hu, and Mohammad Rahman. "Battle of the Retail Channels: How Product Selection and Geography Drive Cross-channel Competition." *Management Science* 55, no. 11 (2009): 1755-1765.

Varian, Hal R. "Reading Between the Lines of Used Book Sales." *New York Times*, July 28, 2005.

Garrity, Brian. "DMG Bets on 'Long Tail'." *Billboard*, February 18, 2006.

12 Deep QA and knowledge work

Required

Thompson, Clive. "What is IBM's Watson?" *New York Times Magazine*, June 16, 2010.

Hayek, F. A. "The Use of Knowledge in Society." *American Economic Review* 35, no. 4 (1945): 519-530.

13 Midterm exam Review readings and class notes.

14 Wikipedia

Required

Greenstein, Shane, and Michelle Devereux. "Wikipedia in the Spotlight." Kellogg School of Management Case. Chicago, IL: Kellogg School, Northwestern University. Case: 5-306-507, 2006.

Optional

Buy at Amazon Raymond, Eric S. "The Cathedral and the Bazaar." In The Cathedral and the Bazaar. Sebastopol, CA: O'Reilly Media, Inc., 2001. ISBN: 9780596001087.

15 Enterprise 2.0

Required

McAfee, Andrew. "The U.S. Intelligence Community (A)." The MIT Center for Digital Business Case. Cambridge, MA: MIT. Case Study 101, October 2009.

Optional

McAfee, Andrew. "Enterprise 2.0." Sloan Management Review 47, no. 3 (2006): 21-28.

Brynjolfsson, Erik, and Andrew McAfee. "Beyond Enterprise 2.0." Sloan Management Review 48, no. 3 (2007): 50-55.

16 Open source and innovation

Required

Buy at Amazon Raymond, Eric S. "The Magic Cauldron." In The Cathedral and the Bazaar. Sebastopol, CA: O'Reilly Media, Inc., 2001. ISBN: 9780596001087.

Davis, Randall. "The Digital Dilemma." Communications of the ACM 44, no. 2 (2001): 77-83.

Optional

Chapter 4 in [S&V].

Chapter 6 in [B&S].

Buy at Amazon Stallman, Richard. "Why Software Should Not Have Owners." In Free Software, Free Society: Selected Essays of Richard M. Stallman. Boston, MA: Free Software Foundation, 2002. ISBN: 9781441436207.

U. S. Copyright Office. Digital Millennium Copyright Act summary, December 1998. (This resource may not render correctly in a screen reader.PDF)

Besen, Stanley M., and Leo J. Raskind. "An Introduction to the Law and Economics of Intellectual Property." Journal of Economic Perspectives 5, no. 1 (1991): 3-27.

Buy at Amazon Lessig, Laurence. Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity. New York, NY: Penguin, 2004. ISBN: 9781594200069.

17 Experimentation, replication

Required

Hopkins, Michael S. "The 4 Ways IT is Driving Innovation: An Interview with Erik Brynjolfsson." Sloan Management Review 51, no. 3 (2010): 51-56.

Kohavi, Ron, Roger Longbotham, and Toby Walker. "Online Experiments: Practical Lessons." IEEE Computer 43, no. 9 (2010): 82-85.

Brynjolfsson, Erik, and Michael Schrage. "The New, Faster Face of Innovation: Thanks to Technology, Change Has Never Been So Easy- or So Cheap." Wall Street Journal (August 17, 2009).

18 Digital advantage

Required

Brynjolfsson, Erik, and Lorin M. Hitt. "Beyond Computation: IT, Organizational Transformation and Business Performance." Journal of Economic Perspectives 14, no. 4 (2000): 23-48.

Optional

Chapters 3 and 4 in [B&S].

Brynjolfsson, Erik, Andrew McAfee, Michael Sorell, and Feng Zhu. "Scale Without Mass: Business Process Replication and Industry Dynamics." Harvard Business School Technology and Operations Mgt. Unit Research Paper No. 07-016, September 30, 2008.

| 8.2. S(S) | | Teaching methods | Advices |
|-----------|--|---|----------|
| 1 | The Economics of Information and Industrie 4.0 | <ul style="list-style-type: none">- overall seminar presentation;- first student interaction- seminar requirement presentation;- presentation of evaluation system at the seminar;- exercises for the financial objectives of an organization | Homework |

| | | | |
|----|--|---|----------|
| 2 | Mind and Machine 1: Strengths and weaknesses of each | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 3 | Mind and Machine 2: The arrival of artificial intelligence | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 4 | Product and Platform 1: Free, perfect, and instant multi-sided networks | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 5 | Product and Platform 2: Platforms and atoms | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 6 | Mind and Machine 3: In-class debate: “Overall, AI is going to make things worse” | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 7 | Differential pricing, signaling and screening | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 8 | Product and Platform 3: Using platforms to influence behavior – Open source and innovation | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 9 | Product and Platform 4: Fake news and misinformation | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 10 | Core and Crowd 1: Distributed expertise | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 11 | Core and Crowd 2: The implications of the blockchain | <ul style="list-style-type: none"> - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |

| | | | |
|---|---|--|----------|
| 12 | In-class debate: “The government needs to rein in big tech” | - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 13 | Digital transformation in emerging markets | - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises; | Homework |
| 14 | Future of information economy and Conclusions | - discussing various case studies and specific exercises - student involvement in preparing and discussing case studies and the related exercises - final conclusions for the seminar - individual feedback | Homework |
| <p>Bibliography: 1. Identical with the course bibliography + any other materials suggested by the students</p> | | | |

1. Course contents corroboration with the demands of epistemic community representatives, professional associations and representative employers

The course content was correlated with local and international business requirements during various professional meetings and debates where the Lecturer took part.

2. Assessment

| Activity | Assessment criteria | Assessment methods | Percentage in the final grade |
|------------------------------------|-----------------------------|---|-------------------------------|
| 10.1. S(S) | Progressive assessment | Active participation, simulations, case studies | 40.00 |
| 10.2. Final assessment | Summative assessment | Exam | 60.00 |
| 10.3. Grading scale | Whole notes 1-10 | | |
| 10.4. Minimum performance standard | Obtaining minimum 50 points | | |

3. Course principles and expectations

Students in the class are co-producers of class discussions and collective learning. For this to happen, class members need to listen carefully to one another and build on or critique prior comments. Many of you have worked in some of the companies we will be discussing or have worked with the relevant technologies. If past experience is any guide, each of you has unique insights and experiences that can help your classmates better understand the issues we are discussing. The discussion should be a conversation in which all participants recognize that they have an obligation to advance our understanding of the issue at hand. Your contributions to this learning process will be appraised in addition to the specific content that you contribute.

Because this course relies heavily on class participation for its success, class norms and expectations regarding class behavior are very important. Attendance at every class is required. Also, please come to class fully prepared to discuss the readings. I create a reading guide for each session with questions that you should review in advance and should be ready to answer.

Students who are thoroughly prepared for each session will benefit the most from this class. What's more, they add to the learning of their classmates. Hence, if you don't feel comfortable with these expectations, then this is not a good course for you to take this semester.

Competition date,
23.09.2018

Instructors,

Approval of date of department,

Director of department,