

**DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

SUPERVISOR/TEAM/ DECLARING/CONDUCTING COURSE: dr hab. inż. Rafał Michalski,
prof. uczelni
DEPARTMENT K6

COURSE CARD

Course name in Polish: Badania kwestionariuszowe

Course name in English: Questionnaire research

Course language Polish / English*

University-wide general course type*:

1) basic science course (mathematics, physics, chemistry, computer science or other) :

2) humanities course:

3) management course:

4) English language:

5) didactics of higher education course:

**Specialized courses for PhD students receiving education in
discipline*:**

1) specialized course in discipline: management and quality sciences

2) interdisciplinary course in the field of several disciplines:

3) seminar in discipline or interdisciplinary:

Subject code: NZQ100129W* delete as applicable

	Lecture	Foreign language course	Seminar	Mixed forms
Number of hours of organized classes in university (ZZU)	30			
Grading	Exam, evaluation classes			

PREREQUISITES RELATING TO KNOWLEDGE, SKILLS AND OTHER COMPETENCES

1. Basic knowledge of probability, descriptive and inferential statistics.
2. Knowledge of basic methods of regression modeling.

COURSE OBJECTIVES

C1: Acquisition of knowledge on the design, administration and results' analysis of questionnaires.

C2: Acquisition of practical skills to apply knowledge to the design, administration and results' analysis of questionnaires.

PROGRAM CONTENTS

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Form of classes – lecture (Lec)		Number of hours
Lec1	Advantages and disadvantages of questionnaire research	1
Lec2	Designing questionnaires	1
Lec3	Administering questionnaires	1
Lec4	Measurement scales	1
Lec5	Validity and reliability terms	1
Lec6	Factorial designs	1
Lec7	Log-linear analysis	2
Lec8	Cluster analysis	2
Lec9	Principal component analysis	2
Lec10	Factorial analysis	4
Lec11	Multidimensional scaling	2
Lec12	Correspondence analysis	2
Lec13	<i>Conjoint</i> analysis	2
Lec14	Pairwise comparisons and <i>Analytic Hierarchy Process</i>	2
Lec15	Structural equations modeling	6
Total hours:		30

TEACHING TOOLS USED
N1. computer N2. beamer N3. mathematical and statistical software packages: Matlab, Statistica, SPSS, R etc. N4. blackboard

ACHIEVED SUBJECT LEARNING OUTCOMES		
Type of learning outcome	Code of learning outcome	Assessment of learning outcome
Knowledge	P8S_WG	Exam
Skills	P8S_UW	evaluation classes

PRIMARY AND SECONDARY LITERATURE
<p><u>PRIMARY LITERATURE:</u></p> <p>[1] Booth, W. C., Colomb, G. G., & Williams, J. M. (2008). <i>The Craft of Research</i>, Third Edition (Third edition). Chicago: University Of Chicago Press.</p> <p>[2] Brzeziński, J. (red.). (2004). <i>Metodologia badań psychologicznych. Wybór tekstów</i>. Warszawa: Wydawnictwo Naukowe PWN.</p> <p>[3] Brzeziński, J. (2006). <i>Metodologia badań psychologicznych</i>. Warszawa: Wydawnictwo Naukowe PWN (wyd. 5).</p> <p>[4] Creswell, J. W. (2014). <i>Research Design: Qualitative, Quantitative and Mixed Methods Approaches</i> (4th edition). Thousand Oaks: SAGE Publications, Inc.</p> <p>[5] Dowdy, S., Wearden, S., & Chilko, D. (2004). <i>Statistics for Research</i> (3 edition). Hoboken, N.J: Wiley-Interscience.</p> <p>[6] Gray, P. S., Williamson, J. B., Karp, D. A., & Dalphin, J. R. (2007). <i>The Research Imagination: An Introduction to Qualitative and Quantitative Methods</i>. Cambridge University Press.</p>

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- [7] Kaplan, D. W. (Ed.). (2004). *The SAGE Handbook of Quantitative Methodology for the Social Sciences* (1 edition). Thousand Oaks, Calif: SAGE Publications, Inc.
- [8] Kumar, R. (2015). *Research Methodology: A Step-by-Step Guide for Beginners*. 4th Edition, Thousand Oaks: Sage Publications Ltd.
- [9] Neuman, W. L. (2009). *Social Research Methods: Qualitative and Quantitative Approaches* (7 edition). Boston: Pearson.
- [10] VanderStoep, S. W., & Johnson, D. D. (2009). *Research Methods for Everyday Life: Blending Qualitative and Quantitative Approaches* (1 edition). San Francisco, CA: Jossey-Bass, John Wiley & Sons.
- [11] Yang, K., & Trewn, J. (2004). *Multivariate Statistical Methods in Quality Management* (1 edition). New York: McGraw-Hill Education.

SECONDARY LITERATURE:

- [1] Boynton, P. M., & Greenhalgh, T. (2004). Selecting, designing, and developing your questionnaire. *BMJ : British Medical Journal*, 328(7451), 1312–1315.
- [2] Green, P. E., & Srinivasan, V. (1978). Conjoint Analysis in Consumer Research: Issues and Outlook. *Journal of Consumer Research*, 5(2), 103–123. <https://doi.org/10.1086/208721>
- [3] Green, P. E., & Srinivasan, V. (1990). Conjoint Analysis in Marketing: New Developments with Implications for Research and Practice. *Journal of Marketing*, 54(4), 3–19. <https://doi.org/10.2307/1251756>
- [4] Luce, R. D., & Tukey, J. W. (1964). Simultaneous conjoint measurement: A new type of fundamental measurement. *Journal of Mathematical Psychology*, 1(1), 1–27. [https://doi.org/10.1016/0022-2496\(64\)90015-X](https://doi.org/10.1016/0022-2496(64)90015-X)
- [5] Mathworks (2019). *MATLAB Documentation*. Retrieved April 5, 2019, from <https://www.mathworks.com/help/matlab/>
- [6] Mulaik, S. A. (1986). Factor analysis and Psychometrika: Major developments. *Psychometrika*, 51(1), 23–33. <https://doi.org/10.1007/BF02293996>
- [7] Mulaik, S. A. (2009). *Foundations of Factor Analysis, Second Edition* (2nd ed.). Chapman & Hall.
- [8] Saaty, T. L. (1977). A scaling method for priorities in hierarchical structures. *Journal of Mathematical Psychology*, 15(3), 234–281. [https://doi.org/10.1016/0022-2496\(77\)90033-5](https://doi.org/10.1016/0022-2496(77)90033-5)
- [9] Saaty, T. L. (1980). *The analytic hierarchy process*. New York: McGraw Hill.
- [10] Sigma Plus Statistiek (2018). *SPSS Tutorials*. Retrieved April 5, 2019, from <https://www.spss-tutorials.com/>
- [11] StatSoft (2006). *Elektroniczny Podręcznik Statystyki PL, Krakow*, WEB: <http://www.statsoft.pl/textbook/stathome.html>. (dostęp 05.04.2019)
- [12] Thomson, G. (1939). The factorial analysis of human ability. *British Journal of Educational Psychology*, 9(2), 188–195. <https://doi.org/10.1111/j.2044-8279.1939.tb03204.x>
- [13] Thurstone, L. L. (1947). Multiple-factor analysis; a development and expansion of The Vectors of Mind. In *Multiple-Factor Analysis; a Development and Expansion of The Vectors of Mind*. Chicago, IL, US: University of Chicago Press.
- [14] Walesiak, M., & Bąk, A. (2000). *Conjoint analysis w badaniach marketingowych*. Wrocław: Wydawnictwo Akademii Ekonomicznej im. Oskara Langego.
- [15] Wright, S. (1921). Correlation and Causation. *Journal of Agricultural Research*, 20, 557–585.

SUBJECT SUPERVISOR (NAME AND SURNAME, E-MAIL ADDRESS)

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