

**THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION  
NATIONAL RESEARCH TOMSK STATE UNIVERSITY**

Psychology Department

APPROVED

Acting as

Dean of Psychology Department

Malkova I.Y.

11 2015



**Course Syllabus**

**“FOUNDATIONS OF PEDAGOGY AND PSYCHOLOGY OF  
HIGHER EDUCATION”**

Qualification awarded

Researcher. Lecturer-Researcher

Form of study

PhD, Full-time (Blended learning)

The course syllabus has been approved by  
the Methodical Committee of  
Psychology Department  
17 November 2015, Protocol 12.

Tomsk - 2015

## **1. Course**

### **Foundations of Pedagogy and Psychology of Higher Education**

## **2. Course role in the PhD programme**

Block 1 “Educational courses. Optional part”, required course.

Contemporary trends of educational systems development pose new challenges and offer a variety of new opportunities for teachers in higher education. Emphasis on interdisciplinary education; orientation towards strengthening the links between science, research and educational practice; complexities of teaching and learning processes and other issues arising within educational settings set forth specific requirements for professional competence of a university teacher. The course addresses the range of questions from: What is teaching and learning? What are the current challenges and trends in higher education? What are the guidelines for course development? What are the current instructional practices? What are the research methods in education? Which recent research findings from psychology, education and pedagogy and other sciences can inform teaching practices?

The aim of the course is to facilitate development of the competences (psychological and pedagogical competence) relevant for teaching in higher education.

Course objectives: 1) constructing interdisciplinary knowledge about higher education as a socio-cultural practice of human resources development; 2) building an individual trajectory of professional psychological and pedagogical competence development; 3) developing an ability to design and implement learning environments oriented towards developmental learning outcomes.

## **3. Year/Year & Semester/ Semesters**

1<sup>st</sup> year, 2<sup>nd</sup> semester.

## **4. Entering requirements, prerequisites (if applicable)**

No prerequisite courses are required; advanced level of English.

## **5. Course credits**

2 credits, 72 academic hours including 22 academic hours of seminars; 50 academic hours of independent study.

## **6. Teaching format**

Course implementation is based on the blended learning format including seminars (e.g. Skype sessions), independent study and is supported through TSU MOODLE platform.

## 7. Planned course outcomes (competence-based approach)

Competence	Planned Outcomes Knowledge, Skills & Experience
Ability to set and achieve goals of professional development within the context of research and teaching in higher education	<ul style="list-style-type: none"> <li>▪ demonstrate knowledge of current challenges and trends in higher education;</li> <li>▪ demonstrate understanding of key concepts of teaching and learning (e.g. pedagogy; instructional practices; learning environment; theories of learning, intelligence and motivation; learning styles and strategies; metacognitive competence; personal epistemology in education etc.);</li> <li>▪ formulate goals for professional development in the field of teaching at university</li> </ul>
Preparedness to teach at the level of higher education	<ul style="list-style-type: none"> <li>▪ demonstrate awareness of current efficient instructional practices (e.g. problem-based learning; inquiry-based learning; competence-based learning) and learning environments (e.g. constructive learning environment; on-line learning environment);</li> <li>▪ critically evaluate and choose efficient instructional practices and assessment approaches to meet different educational objectives;</li> <li>▪ demonstrate knowledge of guidelines and materials for course curricula development and students' projects at Tomsk State University;</li> <li>▪ demonstrate knowledge of information resources available to address questions related to theory and practice of teaching at university;</li> <li>▪ analyze limitations of educational settings, presenting the challenges and suggesting possible solutions;</li> <li>▪ develop assessment strategies for different subject specific tasks;</li> <li>▪ draft course curricula;</li> <li>▪ interpret psychological and pedagogical knowledge in the context of educational practice;</li> <li>▪ use and analyze information resources to address issues arising in educational practice.</li> </ul>

## 8. Course content description and educational activities

Module	Total (hours)	Contact work (hours)	Independent study (hours)
		Seminars	
<b>Module 1. “Higher Education as a socio-cultural practice of sustainable human resources development”</b>	<b>14</b>	<b>4</b>	<b>10</b>
1.1. Current trends and challenges in higher education	8	2	6
1.2. Teaching: Professional development goals	6	2	4
<b>Module 2. “Interdisciplinary vision of teaching in Higher Education”</b>	<b>32</b>	<b>10</b>	<b>22</b>
2.1. Current instructional practices	14	4	10
2.2. Feedback practices in educational settings	12	4	8
2.3. Quantitative, qualitative and mixed research in education	6	2	4
<b>Module 3. “Theoretical foundations and practical implications of understanding learning as a multidimensional and dynamic process”</b>	<b>26</b>	<b>8</b>	<b>18</b>
3.1. Theories of learning, intelligence and motivation	12	4	8
3.2. Individual differences in learning	14	4	10
<b>Total</b>	<b>72</b>	<b>22</b>	<b>50</b>

## 9. Independent study framework

Students are encouraged to critically reflect on their personal previous experience of learning, experience of teaching if already acquired. References are provided for each academic task; students are recommended to conduct additional literature search on relevant topics as well as on the matters of their specific professional interest and explore additional reading materials of their choice from acknowledged sources. During the course students will be able to contact either lecturer or a facilitator of the programme implementation via e-mail to request additional guidance if needed. Academic tasks are designed to facilitate acquisition of the relevant knowledge in the field of higher education and contribute to professional development. The course addresses a wide range of issues relevant to professional development of pedagogical and psychological competence of students coming from different educational and research backgrounds as well as having different levels of experience in teaching.

## 10. Assessment, sample tasks and materials for the course

Course progress is evaluated on the basis pass/fail grading systems. Students will complete a variety of academic tasks including drawing concept maps, writing essays, preparing presentations, analyzing a research paper and answering questions in written form. Assessment will be implemented on the continuous basis with a requirement of submitting completed tasks according to the course timeline.

Final assessment block: includes: essay (2500 word limit), power point presentation (5-7 minutes); commentary to the video - BBC Human Mind. How to get the most of it. Get smart. (1000 word limit), critical analysis of a research paper.

General requirements for submitted written materials – PDF format, APA style, relevance to the task; academic style, clarity, coherence and appropriate depth of knowledge and understanding of the topic; for concept maps – good quality scans or photos; for presentations – PDF format, well-designed structure and relevant content.

Sample tasks and material for the course:

### Module 1. “Higher Education as a socio-cultural practice of sustainable human resources development”

#### 1.1. Current trends and challenges in higher education

1.1.1 NMC Horizon Report. Jonson, L., Adams Becker, S., Estarad, V., & Freeman, A. (2015) *NMC Horizon Report: 2015 Higher Education Edition*. Austin, Texas: The New Media Consortium. Source: <http://www.nmc.org/publication/nmc-horizon-report-2015-higher-education-edition//>

Before reading the report briefly answer the questions addressed to the international expert panel (p.4): Q.1 -What trends do you expect to have a significant impact on the ways in which higher education institutions approach our core missions of teaching, learning and creative inquiry? Q. 2 - What do you see as the key challenges related to teaching, learning or creative inquiry that higher education institutions will face during next five years?

1.1.2 Based on the Report materials fill out table 1.

Table 1 - Overview of trends, challenges and future developments in higher education

Trends	Description	Implications
...		
Challenges		
...		
Future Developments		
...		

Answer the following questions: Are there any other trends, challenges and future developments in higher education not mentioned in the report that you find important within the



context of higher education development? In your opinion which of the trends of higher education development pose new challenges for your professional psychological and pedagogical competence development and in which aspects? Draw a concept map of key concepts of teaching and learning within higher education setting.

## **1.2. Teaching: Professional development goals**

1.2.1. Loughran, J. (2013). *Pedagogy: Making Sense of the Complex Relationship Between Teaching and Learning*. *Curriculum Inquiry*, 43(1), 118-141.

What are the approaches to understanding teaching and learning?

What is pedagogical content knowledge?

What are the definitions of CoRe and PaP-eRs? Provide an example of interpretation of these concepts within the context of the disciplines that you have already taught, are currently teaching or plan to teach.

1.2.2. Wanner, T. & Palmer, E. (2015). *Personalising learning: Exploring student and teacher perceptions about flexible learning and assessment in a flipped university course*. *Computers & Education*, 88, 354-369.

What are the key concepts described in the paper?

Have you had any experience in flexible learning (flipped classroom) approach either as student or as a teacher?

Fill out a Survey for teachers (Appendix C).

What are the differences (similarities) between students' and teachers' views on flexible learning?

\*\*\* *Additional reading:*

O'Flaherty, J., & Phillips, C. (2015). *The use of flipped classrooms in higher education: A scoping review*. *Internet and Higher Education*, 25, 85-95.

Nguyen, B., Yu., X., Japtura, A., & Chen, C-H. S. (2015). *Reverse teaching: Exploring student perceptions of "flip teaching"*. *Active Learning in Higher Education*, doi: 10.1177/1469787415616727.

Oppong-Nuako, J., Shore, B.M., Saunders-Stewart, K.S., & Gyles, P.D.T. (2015). *Using Brief Teacher Interviews to Assess the Extent of Inquiry in Classrooms*. *Journal of Advanced Academics*, 26(3), 197-226.

1.2.3. Tafreshi, D., & Racine, T.R. (2015). *Conceptualizing personal epistemology as beliefs about knowledge and knowing: A grammatical investigation*. *Theory and Psychology*, 25(6), 735-752.

Braten, I., & Ferguson, L.E. (2015). *Beliefs about sources of knowledge predict motivation for learning in teacher education*. *Teaching and Teacher Education*, 50, 13-23.

What is personal epistemology?

How would you describe your beliefs about the sources on knowledge about teaching and students learning?

Which sources of knowledge about instruction and student learning are important for you? (Appendix A. Items used to measure beliefs about the sources of knowledge).

1.2.4. Pehmer, A-K., Gröschner, A., & Seidel, T. (2015). *How teacher professional development regarding classroom dialogue affects students' higher-order learning. Teaching and Teacher Education, 47, 108-119.*

Thadani, V., Breland, W., & Dewar, J. (2015). *Implicit theories about teaching skills predict university faculty members' interest in professional learning. Learning and Individual Differences, 40, 163-169.*

Zepke, N. (2013). *Threshold concepts and student engagement: Revisiting pedagogical content knowledge. Active Learning in Higher Education. 14(2), 97-107.*

Describe your implicit theory of teaching. Draw a concept map of your personal competence in teaching. Formulate three professional development goals, specific steps to be taken for their achievement and assessment of achievement.

## **Module 2 “Interdisciplinary vision of teaching in Higher Education”**

### **2.1. Current instructional practices**

2.1.1. Aulls, M.W., Magon J.K., & Shore, B.M. (2015). *The distinction between inquiry-based instruction and non-inquiry-based instruction in higher education; A case study of what happens as inquiry in 16 education courses in three universities. Teaching and Teacher Education, 51, 147-161.*

What are the key characteristics of inquiry – based instruction (IBI)?

What are the differences between IBI and Non-IBI?

Which of the academic tasks and inquiry-based activities can be used in teaching your discipline? (Table 3. “Comparison of all assigned IBI instructors' and Non-IBI instructors' Academic tasks identified from course syllabi”).

What are the instructional dimensions of inquiry-based instruction?

2.1.2. Koenen, A-K., Dochy, F., & Berghmans, I. (2015). *A phenomenographic analysis of the implementation of competence-based education in higher education. Teaching and Teacher Education, 50, 1-12.*

Bergsmann, E., Schultes, M-T., Winter, P., Schober, B, & Spiel, C. (2015). *Evaluation of competence-based teaching in higher education: From theory to practice. Evaluation and Programme Planning, 52, 1-9.*

What are the key concepts and characteristics of competence-based teaching in higher education?

Formulate and describe a competence model relevant to your field of teaching (research).

2.1.3. Carr, R., Palmer, S., & Hagel, P. (2015). *Active learning: The importance of developing a comprehensive measure. Active Learning in Higher Education*, 16(3), 173-186.

Gubera, C., & Aruguete, M.S. (2013). *A comparison of collaborative and traditional instruction in higher education. Social Psychology of Education*, 16, 651-659.

What are the key characteristics of active learning?

What are the measures of active learning suggested for its evaluation?

How can you support active learning within the context of the disciplines of your field?

2.1.4. Chang, H.-Y., Wang, C.-Y., Lee, M.-H., Wu, H.-K., Liang, J.-C., Lee, S. W.-Y., ... & Tsai, C.-C. (2015). *A review of features of technology-supported learning environments based on participants' perceptions. Computers in Human Behaviour*, 53, 223-237.

What are the types of technology-supported learning environments (TSLEs)?

What are the dimensions of the TSLEs?

Which aspects of different TSLEs dimensions can be integrated in designing courses or learning activities relevant to your field?

2.1.5. Broadbent, J. & Poon, W.L. (2015). *Self-regulated learning strategies & academic achievement in online higher education learning environments: A systematic review. Internet and Higher Education*, 27, 1-13.

Which learning strategies are associated with achievement in online higher education learning environments?

2.1.6. Hood, N., Littlejohn, A., & Milligan, C. (2015). *Context counts: How learners' contexts influence learning in a MOOC. Computers & Education*, 91, 83-91.

What is the definition of self-regulated learning?

What are the sub-processes of self-regulated learning?

What are the characteristics of self-regulated learning in a MOOC (Massive Open Online Courses)?

2.1.7. Kong, S.C., & Song, Y. (2015). *An experience of personalized learning hub initiative embedding BYOD for reflective engagement in higher education. Computers & Education*, 88, 227-240.

What are the benefits associated with the use of the technology Bring Your Own Device?

What are the evaluations from students and teachers of implementing this technology in practice?

What is your vision about the possibilities and limitations of using this technology in



your field?

2.1.8. Ginkel, S Van., Gulikers, J., Biemans, H., & Mulder, M. (2015). *Towards a set of design principles for developing oral presentation competences: A synthesis of research in higher education. Educational Research Review, 14*, 62-80.

Draw a concept map of educational design principles for developing oral presentation competence in higher education.

Describe a task based on preparing an oral presentation on the topic relevant to your field and comment on accounting for each of the seven principles in designing this task.

## **2.2. Feedback practices in educational settings**

2.2.1. Evans, C. (2013). *Making Sense of Assessment Feedback in Higher Education. Review of Educational Research, 83*, 70-120.

What are the key principles of effective feedback practice?

Draw a concept map including e-assessment feedback, self-assessment feedback, peer assessment feedback, feedback gap.

2.2.2. Thurlings, M., Vermeulen, M., Bastiaens, T., Stijnen, S. (2013). *Understanding feedback: A learning theory perspective. Educational Research Review, 9*, 1-15.

Prepare a descriptive summary of the following learning theories: behaviorism, cognitivism, social cultural theory, meta cognitivism, social constructivism.

Which feedback characteristics (task-related characteristics, timing, affective and emotional characteristics, effects on learners) are relevant to which learning theories?

Write an essay answering the following question: Which learning theory and feedback characteristics are more relevant within the subject matter of your field?

## **2.3. Quantitative, qualitative and mixed research in education**

2.3.1. Roulston, K., Preissle, J., & Freeman, M. (2013). *Becoming researchers: doctoral students' developmental processes. International Journal of Research & Method in Education, 36*(3), 252-267.

Doyle, L., Brady, A.-M., & Byrne, G. (2009). An overview of mixed methods research. *Journal of Research in Nursing, 14*(2), 175-185.

## **Module 3. "Theoretical foundations and practical implications of understanding learning as a multidimensional and dynamic process"**

### **3.1. Theories of learning, intelligence and motivation**

3.1.1. Sternberg, R.J. (2012). *Intelligence. WIREs Cognitive Science, 3*, 501-511. doi: 10.1002/wcs.1193.

Conway, A.R.A., & Kovacs, K. (2015). *New and emerging models of human intelligence.*

*WIREs Cognitive Science*, 6, 419-426. doi: 10.1002/wcs.1356.

Hardner, G., & Hatch, T. (1989). *Educational Implications of the Theory of Multiple Intelligences*. *Educational Researcher*, 18 (8), 4-10.

Diseth, A., Meland, E., & Breidablik, H.J. (2014). *Self-beliefs among students: Grade level and gender differences in self-esteem, self-efficacy and implicit theories of intelligence*. *Learning and Individual Differences*, 35, 1-8.

Bodill, K., & Roberts, L.D. (2013). *Implicit theories of intelligence and academic locus of control as predictors of studying behaviour*. *Learning and Individual Differences*, 27, 163-166.

Siegle, D., Rubenstein, L. DaV., Pollard, E., & Romey, E. (2010). *Exploring the Relationship of College Freshmen Honors Students' Effort and Ability Attribution, Interest, and Implicit Theory of Intelligence With Perceived Ability*. *Gifted Child Quarterly*, 54(2), 92-101.

Humphrey, N., Curran, A., Morris, E., Farrell, P., & Woods, K. (2007). *Emotional intelligence and Education: A critical review*. *Educational Psychology*, 27(2), 235-254.

What are the characteristics of the contemporary models of intelligence?

What are the bases of intelligence?

What are the key concepts and ideas of three theories of intelligence relevant to education? Design and fill out a table providing information about the key concepts, theoretical foundations, and implications for educational practice. Which of the theories of intelligence would you support (provide arguments)?

Conduct a literature search, choose five papers discussing implicit theories of intelligence in educational context, prepare a 5-7 minute presentation answering the following question: What role do implicit theories of intelligence play in educational settings?

### **3.2. Individual differences in learning**

3.2.1. Kyndt, E., Coertjens, L., Van Daal, T., Donche, V., Gijbels, D., & Van Petegem, P. (2015). *The development of students' motivation in the transition from secondary to higher education: A longitudinal study*. *Learning and Individual Differences*, 39, 114-123.

What are the theories of motivation relevant for educational context?

What are the key ideas of extrinsic and intrinsic motivation?

What is the theoretical background on achievement motivation and achievement goal theory?

What are the challenges of developing students' motivation in higher education?

3.2.2. Rebetez, M.M.L., Rochat, L., & Van der Linden, M. (2015). *Cognitive, emotional, and motivational factors related to procrastination: A cluster analytic approach*. *Personality and Individual Differences*, 75, 1-6.

Hensley, L.C. (2014). *Reconsidering active procrastination: Relations to motivation and*

achievement in college anatomy. *Learning and Individual Differences*, 36, 157-164.

Kim, K.R., Seo, E.H. (2015). *The relationship between procrastination and academic performance: A meta-analysis. Personality and Individual Differences*, 82, 26-33.

Doménech-Betoret, F., Gómez-Artiga, A., & Lloret-Segura, S. (2014). *Personal variables, motivation and avoidance learning strategies in undergraduate students. Learning and Individual Differences*, 35, 122-129.

Cuevas, J. (2015). *Is learning styles-based instruction effective? A comprehensive analysis of recent research on learning styles. Theory and Research in Education*, 13(3), 308-333.

McCabe, J.A., Osha, K.L., Roche, J.A., & Susser, J.A. (2013). *Psychology Students' Knowledge and Use of Mnemonics. Teaching of Psychology*, 40(3), 183-192.

Peterson, E., Brown, G.T.L., & Jun, M.C. (2015). *Achievement emotions in higher education: A diary study exploring emotions across an assessment event. Contemporary Educational Psychology*, 42, 82-96.

Write an argumentative essay addressing the following question: Which personal, cognitive and emotional characteristics are important for education?

Final assessment block tasks:

1) writing an essay (2500 word limit) – theme is to be set by a student based on the knowledge of different issues related to higher education (themes addressed in the course) and its relevance for psychological and pedagogical competence development;

2) designing a Power Point Presentation (5-7 minutes) – theme of the presentation should be relevant to the content of one of the course modules;

3) writing a commentary to the video “BBC Human Mind. How to get the most of it. Get smart” (1000 word limit; sample questions to address: What is learning? What is the metaphor of learning? Which main themes related to cognitive processes and learning are developed in the video? What is known about learning?);

4) filling out a table “Concise critical notes: Articles and papers”. Paper for analysis has to address the issues relevant to the course content (table 2).

Table 2 - "Concise critical notes: Articles and papers"

Names of author(s)	
Full title of the article	
Full title of journal	
Year published	Month
Volume number	Issue number
Hypotheses: What is the paper setting out to prove? Are research hypotheses supported?	
What is the theoretical position underlying the research? Type of theory?	
What is the key literature used as background to the article or paper?	
Which research methods are used?	
What kind of sample is used?	
Key results	
Key conclusions or recommendations	
<b>Strengths of the research:</b> <ul style="list-style-type: none"> <li>• How does it advance our understanding of the subject or how to research it?</li> <li>• Are there appropriate hypotheses, methods to test the hypotheses, sample sizes or types, controls for variables, recommendations?</li> <li>• Consideration of ethics?</li> </ul>	
<b>Weaknesses of the research:</b>  In what ways is it limited? When and where would it not apply?  What are the flaws in the research, in the hypotheses, research design and methods, sample size and type, conclusions drawn on the basis of the results?	
Source: (S. Cottrell, <i>Critical Thinking Skills</i> , Palgrave Macmillan Ltd, <i>Critical reading and note-making</i> , p.157)	

## 11. Course related resources:

- List of references: References are provided in section 10 according to academic tasks and include NMC Horizon report, original papers published in a variety of journals such as *Teaching and Learning*, *Curriculum Inquiry*, *Computers & Education*, *Internet and Higher Education*, *Theory and Psychology*, *Teaching and Teacher Education*, *Educational Research Review*, *Review of Educational Research*, *International Journal of Research & Method in Education*, *WIREs Cognitive Science*, *Learning and Individual Differences*, *Personality and Individual Differences*, *Theory and Research in Education Journal of Advanced Academics*, etc.

- Web-based resources: Resources providing access to full-text papers available through TSU Scientific Library (<http://lib.tsu.ru/en/zarubezhnye-setevye-resursy>):

<http://www.sciencedirect.com/>; <http://www.jstor.org/>; <http://www.oxfordjournals.org/en/>;  
<http://online.sagepub.com/>; <http://link.springer.com/>; <http://www.tandfonline.com/>;  
<http://onlinelibrary.wiley.com/> and other resources such as Web of Science or Scopus.

Video materials available online: "BBC The Human Mind. How to make the most of it. Get smart".

- ICT: TSU MOODLE platform; Skype.
- Course implementation is based on TSU campus: lecture rooms with Wi-Fi access; equipment for presentations.

## 12. Language of Teaching

English

## 13. Lecturer

Olga Y. Bogdanova – Candidate of Pedagogical Sciences, Associate Professor, Psychology Department, TSU.

Co-Authors: Bogdanova Olga Y., Candidate of Pedagogical Sciences, Associate Professor, Chair of General and Educational Psychology, Psychology Department TSU; Bogdanova Elena L., Candidate of Pedagogical Sciences, Associate Professor, Chair of General and Educational Psychology, Psychology Department TSU; Klochko Vitaly Y., Doctor of Psychological Sciences, Professor, Chair of General and Educational Psychology, Psychology Department TSU; Krasnoryadtseva Olga M., Doctor of Psychological Sciences, Professor, Head of the Chair of General and Educational Psychology, Psychology Department TSU.

Reviewer: Balanov Dmitriy Y., Candidate of Psychological Sciences, Associate Professor, Chair of General and Educational Psychology, Psychology Department TSU.

The course syllabus has been approved by the Methodical Committee of Psychology Department on 17 November 2015, Protocol 12.