

Evaluation of the new ECDEast programmes

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Limits on Evaluation

- **The first cohort of students on the three Masters programmes started in September 2012.**
- **A complete evaluation of the standard of programmes after a few months is not possible.**
- **But the Evaluation Team made the evaluations as rigorous as possible.**
- **The three departments started new programmes, and produced documents for the evaluation.**
- **General comments only; more detailed comments in the final report.**

Evaluation Schedule

- **Evaluation Teams were composed of three representatives of ENAEE and SEFI, two Russian professors, and two Masters students.**
- **15 and 16 April: Tomsk Polytechnic University, Computer Technologies for Design of Thermal Power Plants.**
- **18 and 19 April: Bauman Moscow State Technical University, Cryogenic Engineering and Technology.**
- **22 and 23 April: St Petersburg State Polytechnical University, Intelligent Systems and Technologies.**

EUR-ACE Framework Standards

- **The three programmes were evaluated against the Second Cycle EUR-ACE Framework standards.**
- **EUR-ACE operated by European Network for Accreditation of Engineering Education (ENAE).**
- **EAFS developed in 2005, revised (slightly) 2008.**
- **Programme Outcomes for 1st and 2nd cycle programmes that provide education as part of qualifying as an engineering professional.**

EUR-ACE (Continued)

- **ENAAE does not accredit programmes directly, but specifies Programme Outcomes for authorising accreditation agencies (such as AEER) to award the EUR-ACE Label to accredited programmes.**
- **ECDEast also specified evaluation against Dublin Descriptors and the European Qualifying Framework, but EUR-ACE includes these two standards.**
- **EAFS has six groups of Programme Outcomes:**
 - **Knowledge and Understanding;**
 - **Engineering Analysis;**
 - **Engineering Design;**
 - **Investigations;**
 - **Engineering practice;**
 - **Transferable skills.**

Evidence

- **Meetings with**
 - Teaching staff;
 - Students;
 - Potential employers
- **Self-assessment report including:**
 - Programmes structure;
 - Module descriptors including learning outcomes;
 - Comparison with EUR-ACE and Russian Federal Educational Standards;
 - Details of programme delivery including quality assurance.

Good Things

- **Specification of programme objectives and learning outcomes.**
- **Programme documentation including module descriptors, credit allocation and module learning outcomes.**
- **Industrial support for programmes including input into programme design, teaching and project work.**
- **Positive comments from students about the programme and teaching.**
- **Programmes supported by research activities.**
- **Content and Level of programmes appears to be consistent with EUR-ACE.**
- **Programmes consistent with Russian Federal Educational Standards.**

Possible Improvements

- **Student numbers are low, and need to increase to ensure viable programmes.**
- **Wording of the programme learning outcomes could be improved by emphasising competences instead of knowledge.**
- **Learning outcomes should be specified for all modules, including project work.**
- **Module descriptors should include more information about assessment, and how the learning outcomes are achieved.**
- **The formal University methods of top down quality assurance should be supplemented by feedback from students using departmental questionnaires.**

Conclusions

- **The three universities have developed successful masters degree programmes.**
- **The content and level of the programmes appear to be consistent with EUR-ACE Framework, but assessment by accreditation agency when there are graduates.**
- **Presentation of programme documentation can be improved: degree programmes designed to international standards need also to be documented to international standards.**

Thank you for your attention.

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