## NORTH-EASTERN FEDERAL UNIVERSITY NAMED AFTER M.K.AMMOSOV

| Course/program title               | Research of Functions  |
|------------------------------------|--|
| Main goals and topics of the       | Purpose of the course is forming of                                    |
| course/program                     | mathematic culture, fundamental training                               |
|                                    | in the sphere of functions research,                                   |
|                                    | mastering the contemporary terms of                                    |
|                                    | functions research for its further usage in                            |
|                                    | solution of Applied Mathematics and                                    |
|                                    | Informatics tasks  |
|                                    | The structure and content of the program:                              |
|                                    | 1/ Functions of one variable, its property.                            |
|                                    | 2/ Elementary functions and their schedules in the Cartesian system of |
|                                    | coordinates.   |
|                                    | 3/ Elementary transformations of                                       |
|                                    | schedules of functions in the Cartesian                                |
|                                    | system of coordinates. 4/ The functions set                            |
|                                    | parametrically and their graphics.                                     |
|                                    | 5/ Polar system of coordinates.  |
|                                    | 6/ The generalized polar system of                                     |
|                                    | coordinates.   |
|                                    | 7/ Plotting in polar system of coordinates.                            |
|                                    | 8/Some remarkable curves.  |
|                                    | 9/ General scheme of research of                                       |
|                                    | functions and creation of the schedule.                                |
|                                    | 10/ Solution of applied tasks.   |
| Name of the department/institution | Technical Institute (Nerungry)   |
| offering the course                | Applied Mathematics and Informatics                                    |
|                                    | Department   |
| Name of lecturer/supervisor        | Saltetskaya Nataly Vasilievna  |
| E-mail of lecturer/supervisor      | salteckaya@mail.ru   |
| Number of ECTS-Credits             | 2 ECTS-Credits   |

Regarding the selection of courses please contact the Center for International Education, oip-yakutsk@mail.ru Contact person: Dr. Vladlen Kugunurov