«APPROVED»
Head of the Department

_____
(First name, last name)
« ____» _____ 201__ г.

ABSTRACT OF THE MODULE (COURSE)

1. The module name (course name) – Technical measurements in mechanical engineering
2. Identification code in syllabus – «ДИСЦ.В.М.1.2»
3. Educational program track – 15.03.01. "Mechanical engineering"
4. Educational program specialization – "Technology, equipment and automation of machinery production"
5. Course degree – Bachelor
6. Research unit – Mechanical engineering department
7. Lecturer – V. S. Lyukshin, E-mail *lwsfoa@rambler.ru*
8. Outcomes of module (course) studying
As a result of completing a course of "Technical measurements in mechanical engineering " students should:
Be aware of:
- Methods, principals and means of product quality control.

Know how:
- To monitor the compliance of process discipline in mechanical engineering items production including mining engineering, metalwork constructions and branch connections for oil and gas extraction industries, fuel-power complex and dangerous technical objects.

Be knowledgeable about:
- Methods of monitoring the compliance of process discipline in mechanical engineering items production including mining engineering, metalwork constructions and branch connections for oil and gas extraction industries, fuel-power complex and dangerous technical objects.

9. Curriculum content:
- Basic concepts and definitions of measurement;
- Mechanical engineering items production monitoring;
- Linear and flat angle measurements;
- Lever-mechanical devices for linear and diametrical size;
- Optomechanical devices;
- Measurement of angles and cones;
- Methods and means of surface form and layout deviation measurements;
- Methods and means of surface undulation measurement;
- Methods and means of thread characteristics measurement;
- Spur wheels parameters control;
- Means of motion parameters measurement;
- Measuring of electrical quantity;
- Means of mass, force and moment measurement;
- Pressure and flow measuring equipment;
- Temperature measuring;

- Methods and means of hardness measurement;
- Internal and external flaws control;
- Measurement and control automation means.

10. Course 3 **semester** 5 **number of credits** 4

11. Prerequisite:

- “Mathematics”
- “Physics”
- “Theoretical mechanics”

12. Corequisite:

“Metrology, standardization and certification”.

13. Type of assessment (examination, credit) – examination

By V. S. Lyukshin