**LIST OF SERVICES PROVIDED BY CCU**

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| **№** | **Name of the service** |
| 1. | Production of body parts for experimental stands (the cost of the service varies depending on the complexity of the order) |
| 2. | Cutting of blanks (the cost of the service varies depending on the complexity of the order) |
| 3. | Determination of the cutting edge radius of the tool (the cost of the service varies depending on the complexity of the order) |
| 4. | Measurement of the front and rear angles of the tool (the cost of the service varies depending on the complexity of the order) |
| 5. | Measurement of the parameters of wear of the cutting tool and machine parts, deviations from the original form (the cost of the service varies depending on the complexity of the order) |
| 6. | Coordinate measurements of parts of complex shapes (the cost of the service varies depending on the complexity of the order) |
| 7. | Measurement of holes with high precision (the cost of the service varies depending on the complexity of the order) |
| 8. | Non-contact control of rotation bodies (the cost of the service varies depending on the complexity of the order) |
| 9. | Control of gears (the cost of the service varies depending on the complexity of the order) |
| 10. | Control of the accuracy characteristics of the equipment (the cost of the service varies depending on the complexity of the order) |
| 11. | Multidimensional linear measurements for control of complex shape parts (the cost of the service varies depending on the complexity of the order) |
| 12. | Surface roughness measurements (the cost of the service varies depending on the complexity of the order) |
| 13. | Study of the microstructure of steels and alloys (the cost of the service varies depending on the complexity of the order) |
| 14. | Study of the distribution of microhardness on the surface of products (the cost of service varies depending on the complexity of the order) |
| 15. | Manufacturing of products by selective laser sintering (in the presence of 3D model of the product). The cost of the service varies depending on the complexity of the order. |
| 16. | Surface topography and structure studies and measurements of mechanical properties (including hardness and modulus of elasticity) of bulk materials and thin films on submicron and nanometer scale (the cost of service varies depending on the complexity of the order) |
| 17. | Production of parts from thermoplastics by injection molding (the cost of the service varies depending on the complexity of the order) |
| 18. | Testing of products under aggressive environmental impact (the cost of the service varies depending on the complexity of the order) |
| 19. | Production of parts from light alloys, steel, superhard alloys and composites, using the technology of direct sintering of metal powder by laser (the cost of the service varies depending on the complexity of the order) |
| 20. | Development of manufacturing technology of equipment for coating carbide cutting plates |
| 21. | Development of technology for planning the trajectory of autonomous mechatronic agents |
| 22. | Development and research of technologies of hot stamping of details "shaft-gear" (drawing МКУ-ЗТ-03.01.102) |
| 23. | Development and research of technological process of forging of flanges Ø100/68 and Ø100/51 from pipe blanks (drawing 822-КР-00.00.027) |
| 24. | Study of the effectiveness of the use of composite materials based on basalt fibers in the products of constructive purpose |
| 25. | Development of technology for manufacturing a laptop case |
| 26. | Development of technology for production of drilling rig parts |
| 27. | Development of technology for the production of covers of storage tanks of hydraulic stations |
| 28. | Development of technology of manufacturing the load-bearing frame of the disconnector |
| 29. | Experimental study of the process of deposition of ultrathin films of special alloy |
| 30. | Development of mathematical and software supply for the calculation of adjustments to the gear grinding machine 5843ЕФ4 |
| 31. | Development of technology for manufacturing body parts from sheet metal |
| 32. | Conducting problem-oriented search studies in the field of innovative methods for creating modern polymer composite nanostructured materials |
| 33. | Research, production testing and implementation of high-performance grinding wheels based on microcrystalline corundum |
| 34. | Development of special alloy cutting technology |
| 35. | Analysis and prediction of technical and economic effects of the use of modern polymer composite materials in engineering and construction |
| 36. | Study of technical and economic indicators of manufacturing grinding wheels with increased structural properties, analysis and generalization of the results and their preparation for publication and patenting |
| 37. | Study of the effectiveness of the use of composite materials based on basalt fibers in the products of constructive purpose |
| 38. | Development of the concept of using the principles of construction of mobile reconfigurable communication networks at industrial enterprises |
| 39. | Development of mathematical and software supply for the calculation of technological parameters of external thread grinding on the thread grinding machine model МШ520Р |
| 40. | Research of manufacturing technology of abrasive tools and development of proposals for its improvement |
| 41. | Development of an installation for the study of minimizing the costs of mini thermal power plants on biofuel |
| 42. | Development and research of new modifications of a highly porous tool with increased structural properties, production tests and implementation into the industry |
| 43. | Development of technical conditions, programs and methods of testing for photovoltaic converters of linear and angular displacements |
| 44. | Development of coordinate displacement system and software for the range of universal coordinate measuring machines |
| 45. | Creation of ultraprecision device for measuring noncircularity, noncylindricity, nonflatness and roughness of the surfaces of extremely precise parts from opaque materials |
| 46. | Creation of hardware and software systems for automated measurement of gear-working tools |
| 47. | Development, study of properties and identification of effective applications of high-structure grinding wheels based on microcrystalline corundum |
| 48. | Development of mathematical and software supply for calculating the size of the working area of the machine in the processing of conical wheels with circular teeth |
| 49. | Development of technology for the manufacture of body parts of devices |