Department of Mechanical and Biomedical Engineering

| Introduction |

The Department of Mechanical and Biomedical Engineering develops a higher level of study based on the mechanical engineering to cultivate active and creative capabilities as well as on the biomedical engineering to design the advanced medical devices. In order to achieve the purposes, a master's program was established in 2012 and a doctoral program was established in 2016.
Mechanical engineering is the fundamentals of all engineering and the demand for mechanical specialists is steadily increasing. Furthermore the recent demand for human welfares and medical cares require the convergent educational systems that respond to the biomedical technologies. Therefore, the curriculum of Mechanical and Biomedical Engineering includes mechanical and biomedical subjects and the students learn the research methods through various industrial projects. After the courses, the students are expected to be leading groups who will contribute to the industrial development of Gangwon province and Korea.

| Information |

Campus	Wonju Campus
Location	Science and Technology Hall 1 No.325 (W12-No.325)
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| Professor Introduction |

Name	Research Interests	Phone	E-mail
DeokKi Choi	Metal Cutting, Special Precision Machining, Machine Health Monitoring&Diagnosis	033-760-8725	choidk@gwnu.ac.kr
Sa-Ryang Kim	Fluid Engineering	033-760-8726	dearksr@gwnu.ac.kr

Myung-Gon Yoon	Control and estimation theory	033-760-8727	mgyoon@gwnu.ac.kr
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Seong-Jae Song	Kinematics&Dynamics	033-760-8743	sjsong@gwnu.ac.kr
Joon Shin	Automatic Control & Signal Processing	033-760-8744	jshin@gwnu.ac.kr
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Jae-Min Baek	Robotics, Automatic Control	033-760-8746	jmbaek@gwnu.ac.kr
Kyeong-Soo Yun	Computational mechanics, Design optimization	033-760-8748	ksyun@gwnu.ac.kr
Jae-Hyun Kim	Design optimization for Dynamics problem	033-760-8729	kimjaehyun@gwnu,ac.kr
Hyung-Ju Lee	Thermal Engineering, Computational Fluid Dynamics(CFD), Near-field visualization	033-760-8722	thyu12@gwnu.ac.kr
Dong-Hyun Kang	Micro-Nano Electro Mechanical Systems, Synthetic biology on chip, Wearable Ultrasound	033-760-8723	dhkang@gwnu.ac.kr

| Curriculum - Master's course · Doctoral course |

Course Code	Course Title	Credit
817.501	Advanced Mechanical System Design	3-3-0
817.502	Motion Analysis	3-3-0
817.503	Advanced Biofluid Mechanics	3-3-0
817.504	Biomedical Signal Processing	3-3-0
817.505	Advanced Thermodynamics	3-3-0
817.506	Development of Medical Equipments	3-3-0
816.601	Advanced Mechanical Vibration	3-3-0
816.602	Acoustics	3-3-0

816.603	Advanced Biomedical Instrumentation	3-3-0
816.604	Advanced Mechanism Design	3-3-0
816.605	Rehabilitation Engineering	3-3-0
816.606	Robotics	3-3-0
816.607	Advanced Fluid Machinery	3-3-0
816.608	Advanced Air Conditioning and Refrigeration Engineering	3-3-0
816.609	Energy Conversion	3-3-0
816.610	Advanced Control Engineering	3-3-0
816.611	Artificial Intelligence	3-3-0
816.612	Biomedical System Design	3-3-0
816.613	Advanced Internal Combustion Engines	3-3-0
816.614	Advanced Combustion Engineering	3-3-0
816.615	Special Topics in Heat Power	3-3-0
816.616	Advanced biomechanics	3-3-0
816.617	Computational Analysis	3-3-0
816.618	Advanced Hydraulics Control System	3-3-0
816.619	Advanced Alternative Energy Engineering	3-3-0
816.620	Theory of Elasticity	3-3-0
816.621	Computational Fluid Dynamics	3-3-0
816.622	Special Topics In Heat Transfer	3-3-0
816.623	Finite Element Analysis	3-3-0
816.624	Nanofluids Science and Technology	3-3-0
816.625	Special Topics in Thermal Engineering	3-3-0
817.801	M.S.Thesis Research I	3-3-0
817.802	M.S.Thesis Research Ⅱ	3-3-0