

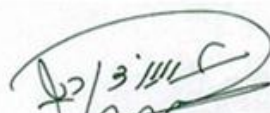
Course Description Form

1. Course Name:
Biomechanics
2. Course Code:
WBM-42-01
3. Semester / Year:
Second/2026
4. Description Preparation Date:
1/2/2026
5. Available Attendance Forms:
Regular students enrolled in the program / Fourth year (Weekly)
6. Number of Credit Hours (Total) / Number of Units (Total)
60 hours
7. Course administrator's name (mention all, if more than one name)
Dr. Saad Mahmood Sarhan
8. Course Objectives
• Improving technical performance (technique) • Developing and innovating new tools • Enhancing training methods • Improving overall performance • Injury prevention and rehabilitation processes
9. Teaching and Learning Strategies
• Interactive lectures supported by multimedia presentations. • Problem-based learning to enhance analytical and critical thinking skills. • Laboratory experiments and hands-on practical sessions. • Simulation-based learning using specialized software tools. • Group discussions and collaborative learning activities. • Case studies to connect theoretical concepts with real-world applications. • Continuous formative assessment through quizzes and assignments. • • Student presentations and seminars to develop communication skills. • Guided research tasks to encourage independent learning. • Integration of practical demonstrations with theoretical explanations. •
10. Course Structure

Week	Hours	Unit or subject name and required learning outcomes	Learning method	Evaluation method
First/second	6	Structure of Shoulder/Biomechanics of Human upper extremity	Lectures delivered in PDF format.	•Daily quizzes •Regular homework assignments •Monthly examinations
Third	3	Biomechanics of Human lower extremity	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments •Monthly examinations
Fourth	3	Linear Kinematics of Human movement	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments •Monthly examinations
Fifth	3	Kinematics of Projectile Motion	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments •Monthly examinations
Sixth	3	Analyzing Projectile Motion	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments •Monthly examinations
Seventh	3	Linear Kinematics Quantities	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments •Monthly examinations
Eighth	3	Factors Influencing Projectile Trajectory	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments - Monthly examinations
Ninth	3	Angular Kinematics of Human movement	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments - Monthly examinations
Tenth	3	Angular Kinematics Relationships	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments - Monthly examinations
Eleventh	3	Relationships Between Linear and Angular Motion	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments - Monthly examinations
Twelfth/Thirteenth	6	Linear Kinetics of Human Movement	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments - Monthly examinations

Fourteenth/Fifteenth	6	Mechanical behavior of Bodies in contact	Lectures delivered in PDF format	•Daily quizzes •Regular homework assignments - Monthly examinations
11. Course Evaluation				
☐ Continuous assessment through daily quizzes and homework assignments. ☐ Monthly examinations to evaluate theoretical understanding. ☐ Practical laboratory assessment based on experiment performance and reports. ☐ Final examination covering theoretical and practical components. ☐ Evaluation of student participation in discussions and presentations				
12. Learning and Teaching Resources				
BASIC BIOMECHANICS EIGHTH EDITION				
Susan J. Hall, Ph.D.				


 Head of the Department
 Dr. Osama Abdulbari


 أ.م.د. حسين هادي حسين
 عميد كلية الهندسة
 العميد


 د. محمد شرف سرحان