IB Physics

Chapter 8 Syllabus

Angular Mechanics

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| Block | Class | Due |
| 1  Feb 17/18 | -Radians, angles, circles  -Tangential relationships  -Centripetal acceleration revisited  -Relationship between linear and angular kinematics | **Read:** 8.1-3 |
| 2  Feb 19/22 | -Angular Force: Torque  -Angular Mass: Moment of Inertia | **Check #1**  **8.1:** 1,2, 6,7 11,12, 16,17, 21,22[[1]](#footnote-1)  **Read:** 8.4-6 |
| 3  Feb 23/24 | -Solving rolling problems  -Angular Work and Power  -Rotational KE  -Solving problems with rotational KE | **Check #2 8.2:** A,B, 1,2, 6,7, 11,12, 16,17  **Read:** 8.7 |
| 4  Feb 25/26 | -Angular momentum  -Gyroscopes  -Conservation of angular momentum | **Check #3 8.3:** A1,2,3,4,5 B1,2  **Practice:** |
| 5  Feb 29/  Mar 1 | -Work in groups on FAs and problems  -Hand out FA review  -Hand out FA8.1, 8.2, 8.3 | **Check #4 8.3:** C1,2,3,4,5,6 D1,2  **Read:** 8.8  **Turn In:** Check 1-4 |
| 6  Mar 2/3 | -Net Angular displacement  -Coriolis Effect  -Demos  -Meet the Governor  -Vector Cross Product  -Gyroscopic precession | **Read:** 8.9, Appendix C (p. A-16) |
| Mar 4/7 | -Gyroscope investigation intro  -Work on Gyroscope investigation | **TAG challenge: Ch 8: 67** |
| 7  Mar 8/9 | $%#&^%$ Oaks testing - Treb Movie | **** |
| 8  Mar 10/11 | Summative Assessments: **SA 8.1 – Rotational Kinematics**  **SA 8.2 – Rotational Dynamics**  **SA 8.3 – Rotational Energy and Momentum** | **Turn In:** Gyroscope Investigation |
| 9  Mar 14/15 | Statics! | **Practice:** Ch 8: 22, 23, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 40, Ch 8: 43, 44, 45, 47, 48, 51, 52, 53, 54, 55, 56, 57, 61, 62, (67 = TAG challenge!!) |

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| 1 Lab:   * Gyroscope Investigation   1 Formative Problem Set:   * Check 1-4   3 Formative/Summative Assessments   * 8.1 – Rotational Kinematics * 8.2 – Rotational Dynamics * 8.3 – Rotational Energy and Momentum | Handouts:   * Lab-GyroscopeInvestigation * FA08.1 * FA08.2 * FA08.3 * Noteguides 1-4 * Worksheets 8.1, 8.2, 8.3 * FA Review |

1. Label this set of problems clearly "Check #1" and draw horizontal lines to demarcate the different checks. These are not going to be accepted late, you must do them daily to receive credit for them. [↑](#footnote-ref-1)