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| Semester | AUG 2022 |
| Open to semester | 5,7,11,13 |
| Course code | **PH3163** |
| Course title | **Mathematical Methods for Physics II (3)** |
| Credits | 3 / |
| Course Coordinator & participating faculty (if any) | Arun M. Thalapillil |
| Nature of Course | Lectures and Tutorials |
| Pre-requisites | Mathematical Methods for Physics (PH 2123) |
| Objectives (goals, type of students for whom useful, outcome etc) | The course will build up on the earlier basic course in mathematical methods for physics. It will aim to introduce students to more advanced mathematical concepts and tools, that are useful in physics. |
| Course contents (details of topics /sections with no. of lectures for each) | Complex analysis, Ordinary differential equations cont., Special functions, Sturm-Liouville theory, Partial differential equations, Green's functions, Integral transforms, and Asymptotic methods. |
| Evaluation /assessment | End-Sem Examination-50%<br>Mid-Sem Examination-50%<br>Others-% |
| Suggested readings (with full list of authors, publisher, year, edn etc.) | 1. Mathematical methods for physicists, Arfken G. B and Weber H.J, 7th Edition.<br>2. Mathematical Methods of Physics, Mathews, J. and Walker R. L., 2nd Edition. |