

COURSE CODE: COMPY01

COURSE TITLE: Computer for Physics Majors 1

DEPARTMENT: Physics

TEXTBOOK:

- Franklin, J., (Latest Edition). *Computational Methods for Physics*, Cambridge University Press.
- Giordano, N. and Nakanishi, H., (Latest Edition). *Computational Physics*, Prentice Hall
- Gould, H., Tobochnik, J. and Christian, W., (Latest Edition). *An introduction to computer simulation methods: applications to physical system*, Addison-Wesley
- Sirca, S. and Horvat, M., (Latest Edition). *Computational Methods for Physicists: Compendium for Students*, Springer
- Thijssen, J., (Latest Edition). *Computational Physics*, Cambridge University Press
- Xenophontos, C. *Beginners Guide to MATLAB*  
[http://math.loyola.edu/~loberbro/matlab/Beginners\\_guide\\_to\\_MATLAB.pdf](http://math.loyola.edu/~loberbro/matlab/Beginners_guide_to_MATLAB.pdf)
- Hunt, B., Lipsman, R., Rosenberg J., *A Guide to MATLAB*  
<http://www.uop.edu.pk/ocontents/A%20Guide%20to%20MATLAB.pdf>

READING LIST:

- Computational Methods for Nonlinear Systems.  
<http://pages.physics.cornell.edu/~myers/teaching/ComputationalMethods/>
- Computational Physics Online Courses  
[http://www.phys.uconn.edu/~rozman/Courses/P2200\\_12F/courses.html](http://www.phys.uconn.edu/~rozman/Courses/P2200_12F/courses.html)
- Computational Physics : PHY411  
<http://www-personal.umich.edu/~mejn/courses/2013/phys411/index.html>
- Complete MATLAB Course  
[https://www.youtube.com/watch?v=T\\_ekAD7U-wU](https://www.youtube.com/watch?v=T_ekAD7U-wU)
- *MATLAB for Physics*  
[https://www.researchgate.net/publication/337944214\\_MATLAB\\_for\\_Physics\\_Manual](https://www.researchgate.net/publication/337944214_MATLAB_for_Physics_Manual)

REQUISITE EQUIPMENT/MATERIALS FOR THE COURSE:

Computer with MATLAB software