

Department of Mathematics, Statistics, and Computer Science

Marquette University

Fall 2012

Course: MSCS 6960: Seminar in Math/Stats/Comp Sci- Fourier MRI Reconstruction

Time: TuTh 11:00 am - 12:15 pm

Place: Cudahy Hall 401

Instructor: Daniel B. Rowe, Ph.D.

Office Hours: TuTh 3:15 pm – 4:15 pm

Office: CU 313

E-mail: daniel.rowe@marquette.edu

Required text:

The Fourier Transform: A technical Understanding with Applications to MRI by Rowe

Grading:

Grades will be based upon work that you present in class.

Topics:

Math Review

Familiarize Matlab

Fourier Series

Continuous Fourier Transform

Specific FT Pairs

Continuous FT Properties

Continuous FT Properties

Discrete Fourier Transform

Discrete FT Properties

Signal/Image Processing

FT & MRI