MTHSTAT 564 – Time Series Analysis

Spring 2017  MW, 2:00–3:15, EMS E495
Class number 60750

Instructor  Daniel Gervini (gervini@uwm.edu)
Office hours: Tue, 3:00–5:00pm, EMS E487

Textbook  Introduction to Time Series and Forecasting (3rd ed) by Brockwell & Davis

Software  Minitab and/or the ITSM package that comes with the book

Prerequisites  MthStat 361/362 or a similar calculus-based probability and statistics course

Brief Course Description
Topics include: stationary time series, ARMA models, spectral analysis, nonstationary and seasonal models (ARIMA and SARIMA), financial models (GARCH), multivariate time series, state-space models (Kalman filter), transfer functions.

Homework and Exams
Homework (weight 60%): There will be several homework assignments during the semester (normally due Wednesdays, in class). Late homework will not be accepted except for serious and provable reasons. There’s no makeup for homework.

Midterm (weight 20%): Wednesday, March 15, in class. A makeup exam can be arranged if missed for serious and provable reasons; no makeup for poor performance.

Final (weight 20%): Tuesday, May 16, 12:30–2:30. The exam is not cumulative. Per university’s policies no makeup is given for final exams under any circumstances, but an Incomplete grade can be given to students who qualify.

Grade Grid
For undergraduate students:

<table>
<thead>
<tr>
<th>Grade</th>
<th>A</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
<th>C</th>
<th>F</th>
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<tbody>
<tr>
<td>Score</td>
<td>&gt; 80</td>
<td>75-80</td>
<td>70-75</td>
<td>65-70</td>
<td>60-65</td>
<td>50-60</td>
<td>&lt; 50</td>
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For graduate students:

<table>
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<th>A</th>
<th>B</th>
<th>C or F</th>
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</thead>
<tbody>
<tr>
<td>Score</td>
<td>&gt; 75</td>
<td>50-75</td>
<td>&lt; 50</td>
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(you get a C if you turned in at least 80% of the homework and didn’t miss any exams; otherwise you get an F)

Audit policy: there’s no “satisfactory” auditing; all auditors will get an NC (“not completed”) grade regardless of work and attendance.