

COURSE APPROVAL ROUTING CHECK LIST

091030

1. **Course Number:** *ACM* PSM 651

1st Bulletin 11/5/09
2nd Bulletin 11-19-09

2. **Course Title:** Markov Chains
(no more than 70 characters)

Title Abbreviation: Markov Chains
For use in Master Schedule (no more than 19 characters)

3. **Action:** New Course Revision IF Designation WAC

Requested Designation(s): _____

Course Proposal/Revision Check List

This checklist will help departments avoid some of the most common mistakes made on course proposals. Your use of the checklist will allow the College Senate Curriculum Committee to focus its review on more substantive issues and expedite the approval process.

- Proposal format conforms to the Directory of Policy Statements, Section IV:02.00 (2002).
- Proposal has been proofread for spelling, punctuation, grammar, style and gender-neutral language.
- If the course is a new course, reasons for the additions are included; if the course is a revision of an existing course, reasons for revision and a copy of the old course are included as well as the IF Narrative when appropriate.
- Catalog description follows the guidelines in the Curriculum Handbook, Appendix C.
- Student learning outcomes are coherent with course content and assessment.
- Outcomes are referenced with course content.
- All resource entries are alphabetized and conform to a specific style manual.
- Cross listed courses have been checked with all chairs and deans included in development of the course.

DEPARTMENT ACTION

W.D. Sabers _____ *10/16/09* _____
Chair, Department Curriculum Committee Date

4. **Approved** with confirmation that all necessary laboratories, studios, resources, facilities and personnel for support of this course are available.

David C. Wick _____ *MATH* _____ *10/16/09* _____
Signature of Department Chairperson Department Date

(OVER)

Nummelin, E., *General Irreducible Markov Chains and Non-negative Operators*, Cambridge University Press, 2004.

Ross, S., *Stochastic Processes*, 2nd ed., Wiley, 1995.

Revuz, D., *Markov Chains*, North Holland, 1984.

Seneta, E., *Non-negative Matrices and Markov Chains*, 2nd ed., Springer, 1981 (2007 reprint).

Stewart, W., *Introduction to the Numerical Solution of Markov Chains*, Princeton University Press, 1994.

Stroock, D., *An Introduction to Markov Processes*, Springer, 2005.

Suhov, Y., and Kelbert, M., *Probability and Statistics by Example: Volume 2, Markov Chains: A Primer in Random Processes and Their Applications*, Cambridge University Press, 2008.

Yin, G., and Zhang, Q., *Discrete-Time Markov Chains: Two-Time-Scale Methods and Applications*, Springer, 2004.

Periodicals:

Advances in Applied Probability

Annals of Applied Probability, The

Annals of Probability, The

Applied Stochastic Models and Data Analysis

Bernoulli

Chance

Electronic Journal of Probability

Journal of Applied Probability

Methodology and Computing in Applied Probability

Probability in the Engineering and Informational Sciences

Probability Theory and Related Fields

Scandinavian Actuarial Journal

Stochastic Analysis and Applications

Stochastic Processes and Their Applications

Theory of Probability and Its Applications

Theory of Stochastic Processes

Electronic and/or Audiovisual Resources:

Carter, E.F., "Markov Chains," <http://www.taygeta.com/rwalks/node7.html>

Khamisi, M.A., "S.O.S. Math: Markov Chains,"
<http://www.sosmath.com/matrix/markov/markov.html>.

Siegrist, K., "Virtual Laboratories in Probability and Statistics, p16. Markov Chains,"
<http://www.math.uah.edu/stat/markov/index.xhtml>.

Wolfram Research Inc., "Wolfram MathWorld: Markov Chain,"
<http://mathworld.wolfram.com/MarkovChain.html>.