

## Selecting Course Modules

Determine your course parameters and objectives considering aspects like:

- How many class sessions will you have and of what duration?
- How many labs will you have and of what duration?
- What is the expected background and caliber of students?
- How much theoretical foundation versus practical application will you provide?
- How much project time will you allocate?

Look through the following topics (possibly download and review the slides) and prioritize them for course coverage. For some topics you have a choice of a more foundational versus a more application-focused coverage. For example a course focusing only on the foundations of simulation with no product coverage might be entirely from column two; while a course more heavily focused on practical applications (like a typical commercial course) might be entirely from column three. You may even choose to integrate both columns of a topic into the same class. Then choose the appropriate modules to best meet your objectives.

Topic	More foundational/theoretical	More application focused (# of slides)
Intro to Simulation	Banks <sup>1</sup> Chap1 (14)	Simio <sup>2</sup> Chap1 (28)
Basic Project Steps	Banks Chap1 (2)	Simio Chap2 (20)
Spreadsheet Simulation	Banks Chap2 (28)	
Simulation concepts	Banks Chap3 (45)	
Simulation History	Banks Chap4 (4)	
Software Selection	Banks Chap4 (55)	
Statistics	Banks Chap5 (37)	
Queuing Models	Banks Chap6 (43)	
Random Number Generators	Banks Chap7 (23)	
Random Variate Generation	Banks Chap8 (17)	
Simio Modeling Framework		Simio Chap3 (19)
Fixed Objects		Simio Chap4 (16) - Lab
Dynamic Object Movement		Simio Chap5 (14) - Lab
Processes		Simio Chap6 (22) - Lab
Input Analysis	Banks Chap9 (38)	Simio Chap7 (21) - Lab
Model Data		Simio Chap8 (30) - Lab
Verification & Validation	Banks Chap10 (25)	
Output Analysis	Banks Chap11 (45)	Simio Chap9 (20)
Comparison	Banks Chap12 (37)	
Building Objects		Simio Chap10 (18) - Lab
Success Tips		Simio Chap11 (25)
Process Models		Simio AppendixA - Lab
Use of Relational Databases		Simio AppendixB (coming soon)
Simulation and Scheduling		Simio AppendixC (coming soon)

1) Slide set that accompanies [Discrete-Event System Simulation](#), 5th edition, Banks/Carson/Nelson/Nicol, Prentice Hall, Copyright 2010. ISBN-13: 978-0-13-606212-7. These slides are available from the Prentice Hall web site or by their permission we have also made them available as part of the Simio academic materials download. Look for file **DiscreteEventSystemSimulation\_CourseModules.zip**

2) Simio-specific course materials. Look for files **SimioCourseModules.zip** and **SimioCourseLabs.zip**

### Transitioning to Simio

We have materials that may help you transition from experience with other simulation products. If you have previously taught Arena using [Simulation with Arena](#), 4<sup>th</sup> edition, Kelton/Sadowski/Sturrock, Dr. Jeffrey Smith of Auburn University has been kind enough to share some transition slides and models that cover selected topics from a Simio perspective.

If you are teaching someone who already knows Arena or you yourself are transitioning from Arena, look for [TransitioningFromArenaToSimio.ppt](#). The file **TransitionMaterials.zip** includes these and a few other useful white papers that may assist in your transition.