Recommended textbook for ME6204 Convective Heat Transfer

CONVECTIVE HEAT AND MASS TRANSFER, Fourth Edition

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STANFORD UNIViVERSITY

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IN ME6204 PART I, WE WILL COVER CHAPTERS 1-14 (SOME CHAPTERS WILL BE COVERED PARTIALLY).

IN ADDITION THERE WILL BE SELECTED TOPICS TO SUPPLEMENT AND EXTEND ANALYTICAL SOLUTIONS WITH CFD RESULTS.

CONTENTS OF TEXTBOOK

Appendix D Operations Implied by the Operator
Appendix E Detailed Derivation of the Simplified Mass-Diffusion and Energy Equation (*P*) for Convective Mass Transfer Problems and the Corresponding Boundary Conditions
Appendix F The TEXSTAN Boundary-Layer Code
Appendix G Blasius Flow--A Sample Data Set for TEXSTAN
Appendix H TEXSTAN Data Sets

Mass Transfer topics will not be part of this course.

Final examination will be OPEN BOOK.

Continuous assessment will consist of

- ***Class participation***
- ***Home assignment set***
- ***Term Paper***
- ***Mid-Term test***

Part II will be covered by Professor K C Ng.

A S Mujumdar ; November 2005

Notes will be provided ONLY for material not available in the textbook.

Selected Topics planned (subject to change)

- **Laminar and turbulent tube flow and heat transfer**
- **Laminar and turbulent free and confined impinging jets**
- **Convective cooling of electronic components**
- **Pulse combustion- basic models**