

The American Construction Industry Deconstructed
Its Past, Present and Future

This course is offered in the School of Building Construction, Georgia Institute of Technology as a full 3-credit Elective to students in planning, construction, architecture and civil engineering.

COURSE SCHEDULE 2017
(all periods will be from 4.30 pm to 6.00 pm in Clough Building, Room 123)

1. TODAY'S CONSTRUCTION INDUSTRY

Month	Date	No.	Subject	Outline Content
Jan	10 th	1.	Course Introduction	Purpose, objectives & expectations; rules of engagement; grading; term research papers; reading; terminology; review of syllabus.
	12 th	2.	Construction Industry Overview	Sectors, scale, characteristics, organization.
	17 th	3.	Financing & Delivering Projects	Project financing, facility development process, delivery options & procurement.
	19 th	4.	Contracts, Codes, Estimating, Insurance & IT.	Industry contracts, codes & regulations, estimating & measurement, risk management, information technology.
	24 th	5.	Key Players	Architects, Engineers, General Contractors, Design-Builders, Project/Construction Managers, Owners/Clients.
Jan	27 th			<i>Research Paper Topic Selected</i>

2. HISTORICAL EVOLUTION

Month	Date	No.	Subject	Outline Content
Jan	26 th	6.	Classical Times - 1	Relevance of classical period, Egypt – the Khufu pyramid.
	31 st	7.	Classical Times – 2	Greece – the temple complex at Epidauros; Roman approach to design & construction; Vitruvius.
Feb	2 nd	8.	Medieval Period - 1	Roots of the ecclesiastical building boom in 12 th C.; Typical cathedral (David Macauley); Sources of Finance.
	7 th	9.	Medieval Period – 2	Design & construction
	9 th	10.	Medieval Period - 3	Contracts, materials, labor & management
	10 th			<i>Research paper abstract due</i>
	14 th	11.	Renaissance	What was the Renaissance? Building in Florence 15 th – 16 th C. Brunelleschi's dome, Alberti, N.Europe & Spain.
	16 th	12.	17 th Century England	Developments in England; Fire of London & its aftermath.
	17 th			<i>Abstract Reviews Complete</i>
	21 st	13.	17 th Century France & America	Building of Versailles; Colonial America; Canada.
	23 rd	14.	Industrial Revolution - 1	Early stages in 18 th C. England; emergence of architects & engineers; British Canals
	28 th	15.	Industrial Revolution – 2	Construction, management & training; measure and value contracts
Mar	2 nd	16.	Industrial Revolution – 3	Transformation of British building industry; emergence of general contracting; parallel developments in France.

	7 th	17.	18 th Century America	Developments to 1800; Mexico.
Mar	9 th	18.	USA – 19 th Century - 1	Developments up to Civil War; Corps of Engineers.
	14 th	19.	USA – 19 th Century - 2	Post-civil war to 1900 – architects & engineers.
	16 th			<i>Research paper Draft due</i>
	16 th	20.	USA – 19 th Century - 3	Post-civil war to 1900 – general contracting; labor unions.
Mar	20 th		Spring Break	
	28 th	21.	USA- 19 th Century - 4	Review of American industrial revolution; technological changes & effect on building industry.
	30 th	22.	USA – 20 th Century - 1	1900 to WW II – rise of unions, consolidation of general contractors, architects and engineers.
Apr	4 th	23.	USA – 20 th Century - 2	Post-war period to 1970 – fall of the unions, owner’s revolt.
	6 th	24.	USA – 20 th Century - 3	1970 to Today – a changing industry; experiments with industrialization.
	11 th	25.	International Directions – 19 th & 20 th C.	Early stages of globalization; prefabrication trade; export of British railroad know-how; international operations by US firms.
	13 th	26.	International Case Studies	Examination of three countries: Great Britain, France & Japan. Is there something to learn?

C. FUTURE TRENDS AND DIRECTIONS

Month	Date	No.	Subject	Outline Content
Apr	18 th	27.	Conclusions	What have we learned from our History lessons relevant to the industry today?
	20 th	28.	Future Trends	Short & long term trends underway; future directions?
	22 nd			<i>Final Research Paper Due</i>
	25 th &26 th May 4th			Research Paper Presentations