

**CB576 Special Topics In Railway**

**COURSE INFORMATION**

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laborator y	
CB472	5	9 – 10	2	2	0	3

**COURSE AIM**

The course aims at introducing the student to the fundamentals of Railway planning and design and their relation to the field of transportation.

**COURSE WEEKLY CONTENTS**

- 1 Basic components of passenger and freight trains, tractive force, movement resistance
- 2 Acceleration and braking.
- 3 Basic principles of track alignment
- 4 Design of horizontal and vertical curve..
- 5 Basic components track elements, jointed and welded rail design.
- 6 Sleeper and ballast design.
- 7 Railway turnouts. + Midterm Exam
- 8 Alignment of passenger and freight stations.
- 9 Locomotive and stabling yard, Sorting and marshalling yards
- 10 Railway signaling.
- 11 Train traffic management
- 12 Railway capacity. 12th Week Assessment
- 13 Railway cost , Price and subsidy
- 14 Railway renewal and maintenance management
- 15 Track construction equipments

**STUDENT GRADING & ASSESSMENT**

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	10	MARKS		→	30
To be freely distributed among possible assessments							
8 to 12	←		20	MARKS		→	20
13 to 15	←		10	MARKS		→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

**REFERENCES**

<b>Textbook</b>	Modern Railway Track, Coenraad Esveld, MRT-production, 2nd Edition, 2001.
<b>Other</b>	Standard Handbook for Civil Engineers, F.S.Merritt, McGraw Hill book NY, 1983. Railway Engineering, Hemeda and Salem, Alexandria University, 2002.