FLORIDA ATLANTIC UNIVERSITY™

Graduate Programs—NEW COURSE PROPOSAL[1]

UGPC APPROVAL _____
UFS APPROVAL _____
SCNS SUBMITTAL _____
CONFIRMED _____
BANNER POSTED _____
CATALOG _____

DEPARTMENT: CIVIL, ENVIRONMENTAL AND GEOMATICS ENGINEERING

COLLEGE: ENGINEERING AND COMPUTER SCIENCE

RECOMMENDED COURSE IDENTIFICATION:

PREFIX TTE COURSE NUMBER 6651 LAB CODE (L or C) _____

(TO OBTAIN A COURSE NUMBER, CONTACT MJENNING@FAU.EDU)

COMPLETE COURSE TITLE: Sustainable Public Transportation

EFFECTIVE DATE
(first term course will be offered)

_____

CREDITS[2]: 3

TEXTBOOK INFORMATION: Urban Public Transportation Systems and Technology by Vuchic, V. V., John Wiley & Sons, 3th Edition, 2007
ISBN: 0139394966

GRADING *(SELECT ONLY ONE GRADING OPTION)*: REGULAR ___X___ SATISFACTORY/UNSATISFACTORY _____

COURSE DESCRIPTION, NO MORE THAN THREE LINES: *DESIGNED TO OUTLINE the principles of the transit systems in the urban transportation arena, the functional relationships that govern bus and rail transit, the issues associated with unbalanced flow and lane* control, transportation system management and the railroad economics and policies.

PREREQUISITES *: NONE	COREQUISITES*: NONE	REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL)*:

* *PREREQUISITES, COREQUISITES AND REGISTRATION CONTROLS WILL BE ENFORCED FOR ALL COURSE SECTIONS.*

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE: PHD IN ENGINEERING OR CLOSELY RELATED FIELDS

Faculty contact, email and complete phone number:
EVANGELOS I. KAISAR, PH.D. ASSOC. PROFESSOR,
EG-190 (BLDG. 36), ROOM 214
EKAISAR@FAU.EDU.
561-297-4084

Please consult and list departments that might be affected by the new course and attach comments.[3]
No other departments affected.

Approved by:	*Date:*
Department Chair:	9/24/14
College Curriculum Chair:	9/29/14
College Dean:	10/1/2014
UGPC Chair:	10/8/14
Graduate College Dean:	10-15-14
UFS President:	
Provost:	

1. **Syllabus** must be attached; see guidelines for requirements: *www.fau.edu/provost/files/course syllabus.2011.pdf*
2. Review **Provost Memorandum: Definition of a Credit Hour** *www.fau.edu/provost/files/Definition_Credit_Hour_Memo_2012.pdf*
3. **Consent** from affected departments (attach if necessary)

Email this form and syllabus to UGPC@fau.edu **one week before** the University Graduate Programs Committee meeting so that materials may be viewed on the UGPC website prior to the meeting.

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Course Syllabus

1. Course title/number, number of credit hours	
Sustainable Public Transportation – TTE 6651	3 credit hours

2. Course prerequisites, corequisites, and where the course fits in the program of study

Prerequisites: None

3. Course logistics

Term: Fall ....
This is a classroom lecture course
Class location and time: SP4: W 7:10 - 10:00 PM (Lecture) Tentative

Exams will be given only at the scheduled times and places. No make-ups, except in documented emergencies. 15-minute quizzes are randomly given throughout the semester.

4. Instructor contact information

Instructor's name	Dr. Evangelos I. Kaisar, Assistant Professor
Office address	Engineering West (EG-36) Bldg., Room 214
Office Hours	T-Tr: 1:00 -2:30 PM
Contact telephone number	561-297-4084
Email address	ekaisar@fau.edu

5. TA contact information

TA's name	TBA
Office address	
Office Hours	
Contact telephone number	
Email address	

6. Course description

DESIGNED TO OUTLINE the principles of the transit systems in the urban transportation arena, the functional relationships that govern bus and rail transit, the issues associated with unbalanced flow and lane control, transportation system management and the railroad economics and policies.

7. Course objectives/student learning outcomes/program outcomes

Course objectives	I. Ability to conceptualize, and solve transit transportation problems. II. Introduce the theoretical concepts of public transportation and network design. III. Analyze and design urban operations in the network by identifying the parameters needed to perform this analysis. IV. To investigate different ideas in urban transportation via class room discussion, problem sets and semester long project.

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Student learning outcomes & relationship to ABET a-k objectives	A. An ability to understand the principles of transit systems in the transportation arena. (a, b, c, d, e, k) B. An ability to understand the functional relationships that govern bus and rail transit. (a, b, e, k) C. An ability to understand the concepts of public transportation. (a, b, e, i, g, k) D. An ability to understand the concepts of unbalanced flow and lane E. control. (a, b, e, k) F. An ability to understand the transportation system management and the railroad economics and policies. (a, b, c, e, l, j, k) G. Experience working with peers in projects to deal with real world problems. (a, b, c, e, k)	
Relationship to program outcomes	**Outcome 1**: An understanding of professional and ethical responsibility.	High
	Outcome 2: A working knowledge of fundamentals, engineering tools, and experimental methodologies.	High
	Outcome 3: An understanding of the social, economic, and political contexts in which engineers must function.	Low
	Outcome 4: An ability to plan and execute an engineering design to meet an identified need.	High
	Outcome 5: An ability to function on multi-disciplinary teams.	High
	Outcome 6: An ability to communicate effectively.	High
	Outcome 7: Graduates will have proficiency in the following areas of civil engineering: (i) structural engineering, (ii) transportation engineering, (iii) geotechnical engineering, (iv) water resources, and (v) environmental engineering.	High
	Outcome 8: Graduates will have an adequate appreciation for the role of civil engineering in infrastructure planning and sustainability including safety, risk assessment, and hazard mitigation.	Medium
	Outcome 9: Graduates will be successful in finding professional employment and/or pursuing further academic studies.	Medium

8. Course evaluation method

Class Participation:	5%	*Note*: The minimum grade required to pass the course is C.
Homework Assignments:	10%	
Quizzes:	5%	
Midterm Exam/Final Exam:	40%	
Class Project:	40%	

9. Course grading scale

There is not any fix criteria for the grading scale. The overall performance as related to course objectives and outcomes is evaluated and considered during grading.

10. Policy on makeup tests, late work, and incompletes

Makeup tests are given only if there is solid evidence of a medical or otherwise serious emergency that prevented the student of participating in the exam. Makeup exam should be administered and proctored by department personnel unless there are other pre-approved arrangements. As one worst quiz will be

dropped, there will be no make-up quizzes.

Late work is not unacceptable.
Incomplete grades are against the policy of the department. Unless there is solid evidence of medical or otherwise serious emergency situation incomplete grades will not be given.

11. Special course requirements

None

12. Classroom etiquette policy

1. Cell phones and beepers should have the ringers turned off as a courtesy to the instructor and your fellow classmates.
2. Computers must be closed and turned off in class
3. You can leave only on breaks
4. Exams will be given only at the scheduled times and places. No make-ups, except in documented emergencies. No one is exempt from the final examination.
5. Attendance to class is required. You are expected to attend and participate in all class sessions. Final grades will be reduced by one letter for every three (3) unexcused absences (as determined by the instructor). Attendance to at least one (1) professional meeting is required.
6. You are expected to complete the assigned reading prior to the date indicated on the class schedule, to do all homework assignments, and to participate fully in the group projects.
7. Assignments are due at the beginning of class on the date indicated on the assignment sheet.

University policy requires that in order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular phones and laptops, are to be disabled in class sessions. You are expected to complete the assigned reading prior to the date indicated on the class schedule, to do all homework assignments, and to participate fully in the group projects

13. Disability policy statement

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton campus, SU 133 (561) 297-3880 and follow all OSD procedures.

14. Honor code policy

Consultation with your classmates on assignments is expected and encouraged; however what you turn in must be your own work. Representing the work of others as your own is unethical and may result in sanctions (see the FAU Policy on Academic Honesty). FAU is committed to a policy of honesty in academic affairs. The instructor's duty is to pursue any reasonable allegation, taking action where appropriate, as described in the appropriate section of the FAU Catalog (http://www.fau.edu/ug-cat/academic.htm#irregular) and the Florida Administrative Code. Please be advised that the copying of material from the world wide web or any other written material is considered plagiarism and is also a breach of the Honor Code.

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and place high value on personal integrity and individual responsibility. Harsh

penalties are associated with academic dishonesty. See University Regulation 4.001 at www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf.

Florida Atlantic University
Regulation 4.001 Code of Academic Integrity
(1) Purpose. Students at Florida Atlantic University are expected to maintain the highest ethical standards. Dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

(2) Definitions. The FAU Code of Academic Integrity prohibits dishonesty and requires a faculty member, student, or staff member to notify an instructor when there is reason to believe dishonesty has occurred in a course/program requirement. The instructor must pursue any reasonable allegation, taking action where appropriate. Examples of academic dishonesty include, but are not limited to, the following:

(A) Cheating
1. The unauthorized use of notes, books, electronic devices, or other study aids while taking an examination or working on an assignment.
2. Providing unauthorized assistance to or receiving assistance from another student during an examination or while working on an assignment.
3. Having someone take an exam or complete an assignment in one's place.
4. Securing an exam, receiving an unauthorized copy of an exam, or sharing a copy of an exam.
(B) Plagiarism
1. The presentation of words from any other source or another person as one's own without proper quotation and citation.
2. Putting someone else's ideas or facts into your own words (paraphrasing) without proper citation.
3. Turning in someone else's work as one's own, including the buying and selling of term papers or assignments.
(C) Other Forms of Dishonesty
1. Falsifying or inventing information, data, or citations.
2. Failing to comply with examination regulations or failing to obey the instructions of an examination proctor.
3. Submitting the same paper or assignment, or part thereof, in more than one class without the written consent of both instructors.
4. Any other form of academic cheating, plagiarism, or dishonesty.

(3) Procedures.
(A) If the instructor determines that there is sufficient evidence to believe that a student engaged in dishonesty, the instructor will meet with the student at the earliest possible opportunity and provide notice to the student of the instructor's perception of the

facts, the charges against the student, and the sanction. The instructor may not remove the student from the course until the appeal process has come to a conclusion.

(B) If, after this meeting, the instructor continues to believe that the student engaged in dishonesty, the instructor will provide the student written notice of the charges and the penalty. A copy of this statement shall be sent to the chair of the department or director of the school/program administering the course.

(C) The student is entitled to an opportunity to be heard at a meeting with the instructor and chair/director to review and discuss the instructor's charges/statement. Such request for a meeting must be made in writing and received by the chair/director within five (5) business days of receipt of the

instructor's charges/statement. The purpose of the meeting is to discuss the facts and to advise the student of the appeal process. The chair/director will provide the student, the instructor, and the dean of the college administering the course a summary of both the student's position and the instructor's position.

(D) The student may appeal in writing to the dean of the college administering the course. The appeal must be received by the dean within five (5) business days of receipt of the chair/director's summary from the review meeting. The dean will convene a Faculty-Student Council ("Council"), which will be composed of the dean (or designee), two faculty members, and two students. The dean (or designee) will act as chair of the Council, direct the hearing, and maintain the minutes and all records of the appeal hearing, which will not be transcribed or recorded. The hearing is an educational activity subject to student privacy laws/regulations, and the strict rules of evidence do not apply. The student may choose to be accompanied by a single advisor, but only the student may speak on her/his own behalf. The student and instructor may present testimony and documents on his/her behalf. Additional witnesses may be permitted to speak at the dean's (or designee's) discretion and only if relevant and helpful to the Council. The Council will deliberate and make a recommendation to the dean to affirm or void the instructor's findings of academic dishonesty. The dean (or designee) will inform the student and instructor in writing of his/her findings of academic dishonesty after receipt of the Council's recommendation.

(E) The student may request an appeal in writing of the dean's findings of academic dishonesty to the University Provost (or designee) and include relevant documentation in support of such appeal. The University Provost (or designee) will notify the student, dean, and instructor of his/her decision in writing. This decision by the Provost (or designee) constitutes final University action.

(F) If there is a finding that the Code of Academic Integrity has been violated, the chair will notify the University Registrar that the following notation be included on both the student's official transcript and on the student's internal record: "Violation of Code of Academic Integrity, University Regulations 4.001." If such violation is appealed and overturned, the dean or University Provost (or their designees) will notify the University

Registrar that such notation should be removed from the student's transcript and internal record.

(4) Penalties.
(A) The instructor will determine the penalty to be administered to the student in the course. Penalty grades cannot be removed by drop, withdrawal, or forgiveness policy. Students should be aware that, in some Colleges/programs, failure in a course or a finding of dishonesty may result in other penalties, including expulsion or suspension from the College/program.

(B) In the case of a first offense, the student may elect to complete a peer counseling program administered by the Division of Student Affairs by the end of the semester following the semester in which the dishonesty occurred. Upon successful completion of this program, the notation regarding violation of the Code of Academic Integrity will be expunged from the student's official transcript. The grade, however, will remain unchanged and cannot be removed by drop or forgiveness policy. Also, the notation will remain in internal University student records.

(C) In the case of a repeat offense, even if the notation of violation of the Code of Academic Integrity from the first offense had been expunged from the official transcript as a result of successful completion of the peer counseling program, the student will be expelled from the University.

Specific Authority: Article IX of the Florida Constitution, 1001.706, 1001.74 F.S., Board of Governors Regulations 1.001, 6.010, and 6.0105. History–New 10-1-75, Amended 12-17-78, 3-28-84, Formerly 6C5-4.01, Amended 11-11-87. Formerly 6C5-4.001. Amended 5-26-10

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See University Regulation 4.001 at www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf.

15. Required texts/reading

1. Vukan R. Vuchic "Urban Transit Operations, Planning and Economics", 3th Edition, John Wiley & Sons, 2007.
2. Handouts provided by instructor

16. Supplementary/recommended readings

1. Winston, W.l., "Operation Research, Applications and Algorithms", 4th Edition , Thomson,, 2006
2. Highway Capacity Manual, TRB Publication, Special report 209, 2000.
3. Manual on Uniform Traffic Control Devices for Streets and Highways, US Department of Transportation, FHWA 2010.
3. John D. Fricker and Robert K. Whitford. "Fundamentals of Transportation Engineering. A Multimodal Systems Approach", 3th Edition, Prentice Hall, 2004.
4. Papacostas C., and Prevedouros P., "Transportation Engineering and Planning" Prentice Hall, 2008.
5. Law A., and Kelton WD., "Simulation Modeling and Analysis" Third Edition, Mc Graw Hill, 2000.
6. Lecture Notes; Software User Manuals.

17. Course topical outline, including dates for exams/quizzes, papers, completion of reading

Date		Topic
August 28		Administrative, Overview Goals and Introduction
September 4	Chapter 1	Transit Systems Characteristics Transit System Development
September 11	Chapter 1	Systems Analysis and Evaluation **Project:** Declaration of general area, tentative topic, and key references for term project (1/2-1 page)
September 18	Chapter 2	Signs, Signal Principals and Warrants Vehicle Motion
September 25	Chapter 3	Supply Analysis **Project:** Specific Topic, problem statement and initial work plan for term project (Presentation, 2 pages)
October 2	Chapter 3	Supply analysis
October 9	Chapter 3&5	Routes and Scheduled Introduction to location theory
October 17	Chapter 4	Public Mass Transportation Review, **Project:** Literature review and detailed proposal for term project(5-8 pages)
October 24		**Field Trip/Project Study**

October 31	Chapter 6	Public Transportation and Freight
November 6	Chapter 9	Paratransit and Specialized Modes **Project:** Progress report and preliminary results for term project (Presentation, 8-10 pages)
November 13	Chapter9	Urban System Characteristics
November 20	Chapter 10	Vehicle and Facilities Transportation Planning
November 27	Chapter 10	Transportation Planning Traffic Assignment – Review
December 4		**Final Group Presentations/Paper Due for Term Project**
December TBA		**Final Exam: Take Home**
December 13		**Semester Ends**