MURRAY STATE UNIVERSITY

DEPARTMENT OF INDUSTRIAL AND ENGINEERING TECHNOLOGY

COURSE SYLLABUS

Course Number: ITD 304 Credit Hours: 4

I. TITLE: Advanced Parametric Modeling

II. CATALOG DESCRIPTION:
An advanced course in the theory and application of computer aided system for parametric drafting and design manufacturing.

III. PURPOSE:
The purpose of this course is to enable students to develop increased knowledge and proficiency in the use of computerized solid modeling techniques. It involves the development and analysis of 3D parametric models using Pro/E (Wildfire 5.0).

IV. COURSE OBJECTIVES:
Upon successful completion of this course, the student will be able to:
1. design a part or assembly of parts using Computer-Aided Design software
2. use parametric modeling techniques to reflect engineering requirements
3. apply top-down design principles to model a design
4. use motion and interference checking to ensure that parts will not interfere throughout their complete range of motion
5. use CAD software collaboratively when designing on a team
6. make appropriate selection of CAD functionality to use as tools in the design process
7. communicate effectively the geometry and intent of design features.

V. CONTENT OUTLINE:
A. Creating sketches
B. Base features
C. Using datums for complex features
D. Advanced modeling tools
E. Assemblies
F. Engineering drawings
G. Surface modeling
H. Sheetmetal modeling
I. Large assembly control
J. Pro/Program
K. Pro/Mechanism
L. Pro/Animation
M. Pro/Piping
N. Pro/Mechanica

VI. INSTRUCTIONAL ACTIVITIES:
A. Lecture and demonstrations
B. Classroom assignments
C. Homework assignments

VII. FIELD, CLINICAL, AND/OR LABORATORY EXPERIENCES:
A. Lab work.
B. Project work.

VIII. RESOURCES:

CAD laboratory

IX. GRADING PROCEDURES:

A.	Classroom and homework assignments	70%
B.	Projects	30%

Grading Scale:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	E

X. ATTENDANCE POLICY:

This course will adhere to the policy published in the MSU Undergraduate Bulletin.
Each of the assignments, homework and projects, after completion, needs to be submitted on the due date specified. No reminders! Late submission will carry a penalty of 5% of the points per day unless there is a justifiable reason for late submission such as:

A. Organized university trip.
B. Illness or death in immediate family.
C. Illness of student.

Please explain it to me well in advance so that I may consider it.
(Each one of these excuses will require either a doctor's statement or a signed statement from the individual in charge of the trip.)

XI. ACADEMIC HONESTY POLICY:

This course will adhere to the policy published in the MSU Undergraduate Bulletin.

XII. TEXT AND REFERENCES:

Toogood, R. & Zecher, J. (2009). *Pro/Engineer Wildfire 5.0 Tutorial and MultiMedia CD*. Schroff Development Corporation, USA.

XIII. PREREQUISITES:

ITD 204

XIV. STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY:

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or other provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact Sabrina Y. Dial, Director of Equal Opportunity, Murray State University, 103 Wells Hall, Murray, KY 42071-3318. Telephone: 270-809-3155 (voice), 270-809-3361 (TDD).

Dr. Emre Bahadir, Spring 2011