Engineering Practice and Principles III

ENGR 350-02 (CRN 12285) – 3 Credit Hours

School of Engineering + Technology
Western Carolina University – Spring 2017

Class hours: **Lecture** Tue 3:35 pm – 5:15 pm (CAT 221)
Laboratory Thu 3:35 pm – 5:15 pm (Belk 366)

Instructor: Dr. Oai Ha
Belk 231, 828-227-2438
E-mail: otha@wcu.edu

Office hours: Mon 9:00-10:00 a.m., 2:00-3:30 p.m.
Wed 9:00-10:00 a.m., 2:00-3:30 p.m., or by appointment

Course Description: Engineering project-based learning (open-ended) with emphasis on project control and engineering design processes. Special emphasis will be placed on professional, ethical, global, environmental, and contemporary issues.

Course Learning Objectives: At the successful completion of this course, the student will be able to:

- develop a problem statement and a requirements matrix for a relevant industry problem
- perform a preliminary design analysis using appropriate computer and mathematical tools
- synthesize a technical solution to those specifications utilizing tools and materials
- quantitatively analyze multiple alternatives and down select to one approach
- develop a Project Plan, including a Work Breakdown Structure (WBS) and Master Schedule
- apply the project plan to monitor, control and report task status and completion
- assess risk and develop a risk plan with mitigation strategies
- create a process for requirements verification and validation
- identify and perform tests and methods to evaluate a design to the original specifications
- identify and evaluate design shortfalls and improve the design in terms of meeting specification including failure mode analysis
- demonstrate effective written and oral communications in project documentation and presentations
- demonstrate an understanding of and a commitment to professional and ethical responsibilities, including a respect for diversity
- demonstrate an understand of the impact of engineering solutions in global, economic, environmental, and societal context
- demonstrate a knowledge of contemporary issues in engineering

Prerequisites: ENGR 200 with C or better

Required Text: Ulrich, K. T., Eppinger, S. D. (2011). Product Design and Development, Fifth Edition, McGraw Hill, ISBN: 978-0073404776

Website: We will use Blackboard (Bb); access via the link at top of WCU homepage.

Evaluation: Your final grade will be determined based on the following weighting for the following course assignments:

Homework and Assignments	20%
Participation and Quizzes	5%
Group Project Progress Reports	35%
Final Project Presentation	20%
Final Project Demonstration	20%

Grading Scale:

97-100 ..... A+ 90-96.9 ..... A 87-89.9 ..... B+ 83-86.9 ..... B 80-82.9 ..... B- 77-79.9 ..... C+	73-76.9 ..... C 70-72.9 ..... C- 67-69.9 ..... D+ 63-66.9 ..... D 60-62.9 ..... D- 0-59.9 ..... F	Note: 1) Grade cutoff points may be lowered at the discretion of the instructor. 2) Scores and grades are only an indication of what you perform in this course, not who you are.

Project

Projects will be generated by students, as presented in the 2nd week of class. These projects should have electro-mechanical content and should adhere to the budgetary guidelines listed later in this syllabus. Students seeking guidance on project ideas are encouraged to consult others, such as the instructor, other professors, family members, etc.

Students will be divided into multi-disciplinary (ET, ECET, BSE, & EE) teams of four to five students during the 2nd week of class. The group members will evaluate each other during the semester and the individual grades will be varied based on this evaluation.

Some project examples from prior years and similar courses:

- emergency USB recharging unit
- bike-powered USB recharging unit
- laser level for carpenters
- beer bottle capper for home brewers
- flounder gigging light
- reading/area light for campers
- dynamic shoe display fixture
- clamp for theatre lighting
- refilling white board marker

Course outline

1. Project Planning (Weeks 1, 2, and 3) Jan 9 – Jan 27

- Develop a problem statement and a requirements matrix for the project conforming to the engineering documentation standards. Template for the requirement matrix will be provided and should be used by the team.
- Develop a Project Plan, including a draft WBS and Master Schedule with effort levels and time duration to tasks. MS Project should be used to produce the WBS and a Gantt Chart for this purpose. Electronic version of the MS Project file also need to be submitted as an attachment to the progress report. Include at least the following activities: project planning, conceptual designs, preliminary design, detail design, materials and components selection, supplier selection, procurement of materials and components, fabrication and assembly, testing, and completion of assignments.
- Discuss and resolve any potential ethical implications.
- Understand the implications of Export Control regulations and apply to the project.
- Evaluate your team's functioning. Could you meet and communicate effectively? Did every team member get the opportunity and use it to contribute his or her fair share of the decision making and the work? *Comment on how the teamwork processes worked for your team and on how it could be improved.*

Assignments, Activities, and Tentative Schedule:

- Project proposal (Project Report 0, individual): Due 3 pm (before class) Tue, Jan 17
- Project assignments and groups: Jan 19
- Project Report 1 (group): Due 3 pm Thursday, Feb 9
- Reading assignment for the next class will be announced at the end of each class

2. Conceptual Designs (Weeks 4 and 5) Jan 30 – Feb 10

- Refine the Project Plan, including a refined WBS and Master Schedule with effort levels and time duration to tasks.
- Apply the project plan to monitor, control and report task status and completion.
- Perform a preliminary design analysis using appropriate computer and mathematical tools.
- Turn in sketches and bullet-point descriptions of 3 to 5 alternative conceptual designs for your project. Include a simple description of each of the concept alternatives considered. Beware of too narrow conceptualizing, in which concepts differ in only minor ways of achieving the desired function.
- Describe some of the steps of your processes for generating conceptual designs. Comment on how these steps worked for your team and on how they could be improved. Evaluate the results.
- Evaluate your team's functioning. Could you meet and communicate effectively? Did every team member get the opportunity and use it to contribute his or her fair share of the decision making and the work? Comment on how the teamwork processes worked for your team and on how it could be improved.

Assignments, Activities, and Tentative Schedule:

- Project Report 2: Due 3 pm Thursday, Feb 16
- Reading assignment for the next class will be announced at the end of each class

3. Conceptual Design 'Down Selection' (Week 6) Feb 13 - 17

- Refine the Project Plan, including a refined WBS and Master Schedule with effort levels and time duration to tasks.
- Apply the project plan to monitor, control and report task status and completion.
- Assess risk and develop a risk plan with mitigation strategies for the conceptual designs.
- Quantitatively analyze multiple alternatives and 'down select' one approach. Template of Conceptual Design Selection Matrix will be provided.
- Provide comments on how well and comprehensively your selection criteria are likely to meet the requirements as identified in Project Report 1.
- Prepare a list of the key uncertainties or questions you still need to address to determine the viability of your approach. For each one, specify an associated plan of action (such as analysis, mock-ups, interviews, experiments, etc.).
- Describe the process your team used for concept selection. Comment on how this process worked for your team, on how it could be improved. Evaluate the results.
- Evaluate your team's functioning. Could you meet and communicate effectively? Did every team member get the opportunity and use it to contribute his or her fair share of the decision making and the work? *Comment on how the teamwork processes worked for your team and how it could be improved.*

Assignments, Activities, and Tentative Schedule:

- Project Report 3: Due 3 pm Thursday, Feb 23
- Reading assignment for the next class will be announced at the end of each class

4. Preliminary Design (Week 7) Feb 20 - 24

- Update the Project Plan, including an updated WBS and Master Schedule with effort levels and time duration to tasks.
- Apply the project plan to monitor, control and report task status and completion
- Break down large, complex problems into smaller, solvable problems. Make use of systems thinking (fully understanding the interactions, and product of those interactions, of individual components in a system) in solving engineering problems.
- Synthesize a technical solution of your selected conceptual design to those specifications utilizing tools and materials from a variety of sources.
- Create a process for requirements verification and validation.
- Identify tests and methods to evaluate the selected design to the original specifications.
- Identify and evaluate design shortfalls and improve the design in terms of meeting specifications including failure mode analysis.
- Communicate the design process with the customer and manage the design process to achieve a satisfactory solution.

- Add aesthetic, ergonomic and market driven features to the design solution.
- Prepare design calculations that demonstrate that your concept will meet the functional specifications as applicable (energy, material transport, signal transmission, circuit, micro-controller, force, structural integrity, kinematics, dynamics, ergonomics, environment etc.).
- Evaluate your team's functioning. Could you meet and communicate effectively? Did every team member get the opportunity and use it to contribute his or her fair share of the decision making and the work? *Comment on how the teamwork processes worked for your team and on how it could be improved.*

Assignments, Activities, and Tentative Schedule:

- Advising day, **no class**: Feb 21
- Project Report 4: Due 3 pm Thursday, Mar 2
- Reading assignment for the next class will be announced at the end of each class

5. Detail Design Review (Report & Presentation, Week 8) Feb 27 – Mar 3

- Update the Project Plan, including an updated WBS and Master Schedule with effort levels and time duration to tasks.
- Apply the project plan to monitor, control and report task status and completion.
- Include a review of your problem statement, requirements, selected concept, and your key specifications.
- Prepare assembly drawing you intend to build, including dimensioned sketches of each component and circuit schematics that you plan to prototype.
- Include a bill of material indicating whether the prototype parts will be purchased or fabricated, and a description of the assembly process. Indicate the material and fabrication process you have selected for each prototype part.
- Provide photocopies of the supplier specification sheets for the purchased materials and components. On catalogue pages, identify which items you have selected for purchase.
- List the web resources and vendors you have found to be helpful in sourcing components, materials and services to aid your design of the prototype and of the manufacturing process.
- Summarize the important decisions you have made since the previous assignment. Describe your prototyping plans.
- Prepare a 12-minute presentation of your detailed design. Allow 3 minutes for Q&A.
- As part of your presentation, demonstrate some form of "proof-of-concept" prototype model.
- Describe the processes your team followed to decide which items to make and which to buy, and to obtain the specifications of materials and components from suppliers. *Comment on how these processes worked for your team, on how they could be improved. Evaluate the results.*

Assignments, Activities, and Tentative Schedule:

- Project Report 5 & MS PowerPoint presentation: Due 3 pm Thursday, Mar 23
- Reading assignment for following class will be announced on the end

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Spring Break Mar 6 - 10, no classes

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6. Fabrication, Assembly, and Testing (Week 9 and 10) Mar 13 - 24

- Provide a brief description on your prototyping and testing progress.
- Perform tests and methods to verify the design compared to specifications.
- Present results of your testing and verifications.
- Evaluate your team's functioning. Could you meet and communicate effectively? Did every team member get the opportunity and use it to contribute his or her fair share of the decision making and the work? *Comment on how the teamwork processes worked for your team and on how it could be improved.*

Assignments, Activities, and Tentative Schedule:

- Project Report 6: Due 3 pm Thursday, Mar 30
- Reading assignment for following class will be announced on the end

7. Refinement, final demonstration, and presentation (Weeks 11 to 16) Mar 27 – May 5

- Revisit target specifications set earlier in the designing process (phases 4 and 5 above), commit to the selected specifications, and identify limitations and constraints.
- Finalize and prepare prototype and MS PowerPoint slides for final demonstration and presentation.

Assignments, Activities, and Tentative Schedule:

- Final Demonstration – Due: Thursday, April 27
- Final Presentation (12 minutes) – Due: Friday, May 5, 12:00-2:30 p.m.

Guest Speakers' schedule and video case study

During the semester, there will be several guest speakers from industry and academic institutions visiting and contributing to the course learning objectives. Guest speakers will provide students real work experiences, insights, and perspectives within their fields and disciplines varying from patent and intellectual properties to diversity in workplace. Also, a video case study will be used to showcase ethical issues in engineering practices. All schedules are tentative and will be updated on Blackboard when needed. Reflection papers (individual assignments) are normally due one week after the scheduled events.

- Guest speaker: Dr. Scott Pierce, Ph.D., P.E., Assistant Professor of Engineering at Western Carolina University
  Topic: Patent and Intellectual Properties
  Place & Time: Regular class meeting on Thursday, Mar 23rd, 2017.

- Guest speaker: Mr. Tim Gillig, President of Livingston & Haven, LLC, Charlotte, NC
  Topic: Professional development and life-long learning
  Place & Time: Regular class meeting on Thursday, Mar 30th, 2017

- Video Case Study: Incident at Morales - An Engineering Ethics Story
  Topic: Engineering Ethics
  Place & Time: Regular class meeting on Tue., April 4th, 2017.

- Guest speaker: Mr. Ricardo Nazario y Colón, Chief Diversity Officer at Western Carolina University
  Topic: Diversity in the Workplace
  Place & Time: CAT 219, Tuesday, April 11 at 3:35 PM

Samples and Templates for proposals, reports, and final presentations of previous classes can be found on the Blackboard

Team Policies and Expectations

Your team will have a number of responsibilities as it completes project assignments.

- Designate a **coordinator**, **recorder** and **checke**r for each assignment. Rotate these roles for every assignment to give everyone a fair learning opportunity and to share work load fairly.
- Agree on a common meeting time and what each member should have done before the meeting (readings, making the first attempt at some or all of the assigned work, etc.).
- Do the required individual preparation.
- **Coordinator** checks with other team members before the meeting to remind them of when and where they will meet and what they are supposed to do.
- Meet and work. **Coordinator** keeps everyone on task and makes sure everyone is involved, **recorder** prepares final solution to be turned in, **Coordinator** checks to makes sure everyone understands both the solution and the strategy used to get it, and **checker** double-checks it before it is handed in. Agree on next meeting time and roles for next assignment.
- **Checker** turns in the assignment, with the names on it of every team member who participated actively in completing it. If the checker anticipates a problem getting to class on time on the due date of the assignment, it is his/her responsibility to make sure someone turns it in.
- Review returned assignments. Make sure everyone understands why points were lost and how to correct errors.
- Consult with your instructor if a conflict arises that cannot be worked through by the team.

- **If a team member refuses to cooperate on an assignment, his/her name should not be included on the completed work**. If the non-cooperation continues, the team should meet with the instructor so that the problem can be resolved, if possible. If no resolution is achieved, the team members may notify the uncooperative member in writing that he/she is in danger of being fired, sending a copy of the memo to the instructor. If there is no subsequent improvement, they should notify the individual in writing that he/she is no longer with the team. The fired student should meet with the instructor to discuss options. Similarly, students who are consistently doing all the work for their team may issue a warning memo that they will quit unless they start getting cooperation, and a second memo quitting the team if cooperation from team members is not forthcoming. Students who get fired or quit must find a team willing to accept them as a member; otherwise they will not get a grade for this course.
- Group work is not always easy – team members sometimes cannot prepare for or attend group sessions because of other responsibilities, and conflicts often result from differing skill levels and work ethic. When teams work and communicate well, however, the benefits more than compensate for the difficulties. One way to improve the chances that a team will work well is to agree beforehand on what everyone on the team expects from everyone else.
- At the end of the course each student will fill out an assessment form to evaluate fellow team members. Each student's individual grade on the team assignments will be affected by these evaluations. This may seem unusual from your experience of academic assessment, but it is based on accepted principles and practice both in the academic world and in performance assessment in the industry.

Attendance: This course is structured to maximize collaborative learning during the scheduled class time through discussions and group activities. Attendance is expected and therefore, the student's final grade will be reduced by a full letter grade for every 3 unexcused absences. North Carolina law allows you two excused absences for required religious observances each academic year; to use these days, you must notify the instructor at least 2 weeks in advance, and file the electronic form with the Senior Associate Vice Chancellor for Academic Affairs for final approval; it is your responsibility to make up all missed work. Any missed in-class assignments, such as presentations, must be cleared by submitting appropriate documentation to the Office of Student Affairs (828-227-7147, 114 Scott Hall East).

Course Assignments: Late assignments or project reports will not be accepted without a prior arrangement with the instructor at least 24 hours before the assignment is due, except in the event of an emergency. Assignments turned in after the due date because of an excused absence or an emergency must be handed in as soon as possible. A 10% reduction in the grade will be made for each day of delay.

Homework: Regular homework will be assigned during the semester. Students may work together on these assignments but each student must turn in an original solution/answer. Homework assignments may be hand written. However, the writing should be neat and legible with an explanation and a listing of all necessary assumptions.

Project Progress Reports: Multiple project progress reports will be due for different phases of the project during the semester. Each group should submit one report. The reports are expected to be of a very high technical quality and should be typed in. Each group should distribute report writing between the members based on an agreement between group members.

Project Materials and Expenses: Each team will be provided with basic parts and materials and allocated a budget of $150 for completing the project, including building prototypes. The budget for making prototypes may exceed this amount. However, the project group will be responsible for obtaining sponsorship from other sources to cover expenses in excess of $150. Teams should be very careful before finalizing the purchasing list. A process for placing a purchase request will be provided to the teams, and teams are required to strictly abide by the process. Teams should also be aware that the machine shop and the electrical labs get extremely busy, and thus, sufficient time should be allocated to activities involving the use of these labs.

Course support: Two graduate TAs, Jairo Nevarez and Kaleb Frizzell, will help teams with parts ordering process and technical questions. Their schedules are attached below and emails are jnevarez1@catamount.wcu.edu and kjfrizzell1@catamount.wcu.edu.

	Monday	Tuesday	Wednesday	Thursday	Friday
8AM-9AM					
9AM-10AM		Kaleb (Belk 360)			
10AM-11AM		Kaleb (Belk 360)			
11AM-12PM					
12PM-1PM		Class		Class	Kaleb & Jairo (Belk 362)
1PM-2PM		Class	Jairo (Belk 360)	Class	Kaleb & Jairo (Belk 362)
2PM-3PM	Jairo (Belk 360)		Jairo (Belk 360)	Kaleb (Belk 360)	Jairo (Belk 360)
3PM-4PM	Jairo (Belk 360)		Class	Kaleb (Belk 360)	Jairo (Belk 360)
4PM-5PM	Kaleb (Belk 360)		Class		
5PM-6PM	Kaleb (Belk 360)				

Intellectual Property: Any inventions developed during this course will be subject to the university policy on student ownership of intellectual property. If a team should decide to pursue a patent, they should consult Mr. Shea Browning, Associate General Counsel for the university, 520 H.F. Robinson Administration Building, Ph: (828) 227-7116.

Honor Code: Refer to Academic Integrity Policy and Reporting Process at the WCU website or at the end of this syllabus.

CoursEval: This course will be evaluated using the online evaluation tool, CoursEval. The time window for evaluation will be April, 2 to 29, 2017 (8a.m.). Your feedback through this student assessment of instruction (SAI) is very important and truly valued.

Disabilities: Western Carolina University is committed to providing equal educational opportunities for students with documented disabilities and/or medical conditions. Students who require reasonable accommodations must identify themselves as having a disability and/or medical condition and provide current diagnostic documentation to the Office of Disability Services. All information is confidential. Please contact the Office of Disability Services at (828) 227-3886 or come by Suite 135 Killian Annex for an appointment.

Support: Student Support Services provides support to students who are either first-generation, low-income or those who have disclosed a disability with: academic advising, mentoring, one-on-one tutorial support, and workshops focused on career, financial aid and graduate school preparation. You may contact SSS at (828) 227-7127 or email sssprogram@wcu.edu for more information. SSS is located in the Killian Annex, room 138.

WaLC: The Writing and Learning Commons (WaLC) is a free student service, located in BELK 207, providing course tutoring, writing tutoring, academic skills consultations, international student consultations, graduate and professional exam preparation resources, and online writing and learning resources for all students. To schedule tutoring appointments, visit the WaLC homepage (http://walc.wcu.edu) or call 828-227-2274.

Distance students and students taking classes at Biltmore Park are encouraged to use Smarthinking (http://www.wcu.edu/academics/edoutreach/distance-online-programs/student-resources/services-for-distance-students.asp) and the WaLC's online resources.

Math Tutor: The Mathematics Tutoring Center provides tutoring in all lower-division math and many CS courses (455 Stillwell, http://mathlab.wcu.edu, 828-227-3830), help with mathematical concepts in other disciplines, and workshops on study skills specific to mathematics courses. Tutoring is available on a drop-in basis, 9 am - 5 pm and 6 - 9 pm Monday-Thursday, and 9 am - 5 pm on Friday.

Calendar: Academic Calendar includes dates for all breaks, university closures, final exams, etc. The academic calendar can be found at: http://www.wcu.edu/learn/academic-calendar.aspx

Registrar: In addition to the Academic Calendar the Registrar's webpage has the final exam schedule, schedule of classes, and much more. Visit this site: http://www.wcu.edu/learn/academic-services/registrars-office/

I plan to enjoy this course, and hope that you do, as well. Don't hesitate to call me or schedule an appointment if you have any questions concerning the material. I encourage an open line of communication and look forward to having spirited discussions concerning course topics.

NOTE: This syllabus is subject to change at the discretion of the instructor.

Homework #0

- Meet with the professor for 5 or 10 minutes to talk about work experiences, post-graduation plans, hobbies, etc.
- This may be done in groups of up to 3.
- Yes, this counts as much as any other HW assignment during the semester.
- Complete between Weeks 2 and 4, or from Jan 17 to Feb 3, 2017.

Academic Integrity Policy and Reporting Process:

This policy addresses academic integrity violations of undergraduate and graduate students. Graduate students should read inside the parenthesis below to identify the appropriate entities in charge of that step of the process.

Students, faculty, staff, and administrators of Western Carolina University (WCU) strive to achieve the highest standards of scholarship and integrity. Any violation of the Academic Integrity Policy is a serious offense because it threatens the quality of scholarship and undermines the integrity of the community. While academic in scope, any violation of this policy is by nature, a violation of the Code of Student Conduct and will follow the same conduct process (see ArticleVII.B.1.a.). If the charge occurs close to the end of an academic semester or term or in the event of the reasonable need of either party for additional time to gather information timelines may be extended at the discretion of the Department of Student Community Ethics (DSCE).

I. General:

This policy addresses academic integrity violations of undergraduate and graduate students.

Students, faculty, staff, and administrators of Western Carolina University (WCU) strive to achieve the highest standards of scholarship and integrity. Any violation of this policy is a serious offense because it threatens the quality of scholarship and undermines the integrity of the community.

Instructors have the right to determine the appropriate academic sanctions for violations of the Academic Integrity Policy within their courses, up to an including a final grade of "F" in the course in which the violation occurs.

II. Definitions:

1. Cheating – Using, or attempting to use, unauthorized materials, information, or study aids in any academic exercise.
2. Fabrication – Creating and/or falsifying information or citation in any academic exercise.
3. Plagiarism – Representing the words or ideas of someone else as one's own in any academic exercise.
4. Facilitation – Helping or attempting to help someone to commit a violation of the Academic Integrity Policy in any academic exercise (e.g. allowing another person to copy information during an examination).

III. Undergraduate and Graduate Academic Integrity Process:

1. Within five (5) business days of the instructor's knowledge of the alleged violation of the Academic Integrity Policy, s/he will inform his/her department head (or associate Dean of the graduate school when applicable) in writing of the allegation and proposed sanction(s).
2. Within ten (10) business days of the instructor's knowledge of the alleged violation of the Academic Integrity Policy, the instructor will inform the student of the allegation, including the proposed sanction(s), in writing. In the written notification, the instructor will inform the student of his/her right to request a meeting with the instructor. During the

meeting, the instructor shall complete the Academic Integrity Violation Faculty Resolution Form. If the student does not request a meeting with the instructor within five (5) business days of receipt of the written allegation(s), the student shall be deemed to have mutually resolved the matter and shall be bound to the sanction(s) outlined by the instructor in the written allegation. If the student does not request a meeting, the alleged violation of the Academic Integrity Policy shall not be subject to further review and/or appeal.

3. Within five (5) business days of meeting with the instructor, the student shall either appeal the decision to the department head or mutually resolve the matter by accepting the allegation and proposed sanction(s). No action by the student within five (5) business days of the meeting with the instructor shall constitute a mutual resolution and waiver of the student's rights to appeal pursuant to the Academic Integrity Policy. If the student does not respond within five (5) business days of meeting with the instructor, the alleged violation of the Academic Integrity Policy shall not be subject to further review and/or appeal.
4. Within five (5) business days of receiving a student's appeal, the department head must schedule a meeting with the student. The instructor may be present during the meeting. During the meeting, the department head shall complete the Academic Integrity Violation Department Head Resolution Form. Only information submitted during the meeting with the student, or in the meeting between the instructor and the student, may be considered by the department head. The evidentiary standard for making a decision shall be preponderance of the evidence. The department head may agree or disagree with the allegation(s) of the instructor. The department head may also approve, overturn, or modify the sanction(s) proposed by the instructor. If the student does not attend the scheduled meeting with the department head, the matter will be heard in absentia and shall not be subject to further review and/or appeal.
5. Within five (5) business days of meeting with the department head, the student shall either appeal the decision to an Academic Integrity Board or mutually resolve the matter by accepting the allegation and proposed sanction(s). The student must submit an appeal to the academic Dean listed on the Academic Integrity Violation Department Head Resolution Form. No action by the student within five (5) business days of the meeting with the department head shall constitute a mutual resolution and waiver of the student's rights to appeal pursuant to the Academic Integrity Policy. If the student does not respond within five (5) business days of meeting with the department head, the alleged violation of the Academic Integrity Policy shall not be subject to further review and/or appeal.
6. Within seven (7) business days of receiving a student's appeal, the appropriate academic Dean must schedule an Academic Integrity Board hearing with the student. The Academic Integrity Board shall consist of a minimum of two (2) currently enrolled students and/or faculty members (with a minimum of one faculty member). A faculty member will serve as chair of the board. The instructor may be present during the hearing. Only information submitted during the hearing, or in the meetings between the instructor/department head and the student, may be considered by the hearing board. The evidentiary standard for making a decision shall be preponderance of the evidence. The hearing board may agree or disagree with the allegation(s) of the instructor. The hearing board may also approve, overturn, or modify the sanction(s) proposed by the instructor and/or department head. If the student does not attend the scheduled hearing, the matter will be heard in absentia and shall not be subject to further review and/or appeal. Within ten (10) business days of the hearing, the appropriate academic Dean shall review pertinent records and send the student written notification of the decision of the Academic Integrity Board.

7. Within five (5) business days of receiving written notification of the decision of the Academic Integrity Board the student may accept the findings and sanctions of the board or submit an appeal to the designated academic Dean. No action by the student within five (5) business days of the meeting with the department head shall constitute a mutual resolution and waiver of the student's rights to appeal pursuant to the Academic Integrity Policy. If the student does not respond within five (5) business days of meeting with the Academic Integrity Board, the alleged violation of the Academic Integrity Policy shall not be subject to further review and/or appeal.
8. If the student elects to file an appeal of the decision of the Academic Integrity Board, she must submit a written appeal within five (5) business days of receiving written notification of the decision of the Academic Integrity Board to the designated academic Dean. An appeal to an academic Dean must be limited to the following grounds; 1) a violation or due process or 2) a material deviation from Substantive and Procedural Standards by the UNC Board of Governors (as set forth in the UNC Manual 700.4.1).
9. If an appeal is heard by an academic Dean, s/he shall review pertinent records within ten (10) business days of receiving a valid appeal. The academic Dean may agree or disagree with the allegation(s) of the instructor. The academic Dean may also approve, overturn, or modify the sanction(s) proposed by the instructor, department head, and or Academic Integrity Board. Within five (5) days of making a decision, the academic Dean shall provide the student with a written decision. The decision of the academic Dean shall be final.
10. The student must remain enrolled in the course related to the case, and may not be permitted to withdraw from the course related to the case, until all hearing timelines, notifications, and/or appeals have been completed.
11. Upon resolution of each level of the case (no matter the outcome), the instructor, department head, and academic Dean must provide the Department of Student Community Ethics with all materials and documents related to the case (i.e. course syllabus, materials in violation of the Academic Integrity Policy, Instructor Resolution Form, Department Head Resolution Form, Academic Integrity Board decision letter, academic Dean decision letter, etc…). The Department of Student Community Ethics shall serve as the repository for all records associated with allegations and violations associated with the Academic Integrity Policy.

IV. Academic Integrity Board:

The Academic Integrity Board shall consist of a minimum of two (2) currently enrolled students and/or faculty members (with a minimum of one faculty member). A faculty member will serve as chair of the board. Students and faculty members serving on boards for each college will be selected by each college Dean. The Department of Student Community Ethics will train all board members prior to their service on a hearing board. Each academic Dean will convene hearing boards as necessary, and will determine a faculty member to serve as chair prior to a hearing.

V. Sanctions:

The instructor, department head, Academic Integrity Board, and/or academic Dean may impose academic sanctions permitted by the institution (not to exceed receiving a grade of "F" for the course). The instructor, department head, Academic Integrity Board, and/or academic Dean may

not permanently remove the student from the course or suspend/expel the student from a program or the University. Student behavior of the magnitude to warrant consideration for permanently removal from the course or suspension/expulsion from a program or the University must be referred to the Department of Student Community Ethics.

VI. Habitual Violations of the Academic Integrity Policy:

Upon receipt of materials associated with violations of the Academic Integrity Policy, the Department of Student Community Ethics will determine if a student has previous violations of University policies. Students with a prior record of violations, or who commits a gross and/or egregious violation of the Academic Integrity Policy, will be referred to the Department of Student Community Ethics for consideration of being subject to hearing proceedings as a habitual violator. Students with three or more violations of the Academic Integrity Policy will automatically be subject to hearing proceedings as a habitual violator. Students in this category are subject to course-related sanctions imposed by the instructor, department head, Academic Integrity Board, and/or academic Dean and University-level sanctions imposed by the Department of Student Community Ethics for habitual violations of University policies.

Additional information is available on the Student Success website under Student Community Ethics.