



**WOODLAND HILLS HIGH SCHOOL
PROGRAM FOR GIFTED STUDENTS
Course Catalog 2010-11**

This catalog is provided to outline the proposed gifted course offerings for the 2010-2011 school year. Following each course title is a letter and a number in parenthesis. Please use the following legend to help in your selection to prepare a course load you are comfortable with.

SEMESTER OFFERED	DESCRIPTION
Y	Year long
F	Fall semester
S	Spring semester

TIME REQUIREMENTS	EXAMPLES
1	Lowest involvement, less than 5 meetings per year, competitions with less than 3 training sessions
2	Less than 10 scheduled meetings, competitions with 3-6 training sessions, activities that are completed outside of regular school day
3	Semester courses that meet on a regular weekly basis
4	Semester courses that meet on a regular weekly basis and include a competition, may require additional preparation outside of gifted class time
5	Highest involvement, yearlong courses with competitions, requires after regular school hours meetings, extensive independent study

Woodland Hills is a member of **The Eastern Suburbs Special Programs Association (E.S.S.P.A.)**. This is a consortium of Gifted programs comprised of thirteen local school districts. Approximately twenty-five different events are conducted throughout the academic year to meet some of the needs of gifted students ranging from grades 7-12.

PERFORMING ARTS

WORKSHOPS AND PROJECTS

PW1-Theater Appreciation Performances (Y, 1) - A series of three performances at the Pittsburgh Public Theater, including workshops before the performance and discussion groups following the performance, will be offered to gifted students. Production staff members will conduct both workshops and discussion groups. Students are asked to help defray the cost of the programs by paying \$45 for the series of three plays.

PW2-Theater Performance Workshop (Y, 2) - A series of six 2-hour performance workshops including improvisation, direction and a performance project. Local professional actor, Katie Hauser, who has appeared in various stage and vocal productions at Point Park University, will conduct the workshops. Students taking this workshop for a second time may only do so if they have completed a scene study off-book in the first workshop.

LANGUAGE ARTS, EDUCATION, CREATIVITY & REASONING SKILLS

ACADEMIC COMPETITIONS

LC1 - Creative Convention (F, 2) - An academic competition sponsored by ESSPA. Creative Convention is an activity in which students meet six to eight times prior to the competition to prepare themselves to develop an understanding of creativity and problem solving skills. Students at the competition compete in individual as well as group exercises.

LC2 - Writing Contest (S, 2) – Students prepare a polished writing piece to be entered into a competition. This event includes both a prose and a poetry category. Mentorship in creative writing is available through the gifted program language arts teachers.

WORKSHOPS AND SEMINARS

LW01 - Sign Language I (Y, 4) – An introduction to Sign Language. Students will become familiar with ASL and SEE versions of Sign Language. Students will use sign language software, text and dictionary to develop proficiency. Students will be involved in a Deaf Awareness Day comprised of a variety of activities culminating in a possible visit to the School for the Deaf.

LW02 - Sign Language II (Y, 4) - A course designed for students who have completed Sign Language I. This course will concentrate on advanced communication skills, preparing students who wish to be fluent in sign language. Students will be involved in a Deaf Awareness Day comprised of a variety of activities culminating in a possible visit to the School for the Deaf.

LW03 - Sign Language III (Y, 5) - Students who have demonstrated fluency in the use of Sign Language will be recruited to serve as student instructors in teaching the Sign Language I and II classes. Student instructors will be involved in the planning of lessons, teaching of the classes, and designing activities for the Deaf Awareness Week Program.

LW05 - Great Books - AP English 11& 12 (S, 2) - A special workshop which uses the Great Books Shared Inquiry Method of discussing and analyzing literature to study such works as *Eveline* by James Joyce, *As I Lay Dying* by William Faulkner or *J. Alfred Prufrock* by T S. Eliot. Students must take AP English 11 or 12 class in order to participate. Great Books sessions occur in three-day sequences two to three times per year. Unlike many other gifted workshops this selection is firmly rooted in the regular course. It will not involve pull-out and will be graded as part of the course. Seniors or juniors who are taking AP English are strongly encouraged to include **Great Books** in their GIEP's.

Literary Magazine - Students publish a literary magazine to showcase the artistic and literary accomplishments of the students of Woodland Hills High School. A Senior Staff and a Leadership Board will be selected from members of each of the three different staffs. *Graphiti Magazine*, the final product, is a high quality, award winning, professionally prepared folio.

LW06 - Business Staff (Y, 2) - Responsibilities include marketing and sales. This staff will meet approximately twice a month.

LW07 - Literary Staff (Y, 2) - Responsibilities include recruiting, selecting and editing submissions. This staff will meet approximately twice a month.

LW08 - Design Staff (Y, 4) - Responsibilities include layout, camera operations, graphics, and publishing. This staff will meet approximately once a week.

In Design Workshop All design staff members will be required to take a workshop on the software application skills necessary to design the magazine. Your registration for design staff will also include an automatic registration for this workshop.

LW09 – Leadership Staff (Y, 5+) – Includes senior editors and department heads. Responsibilities include organizing staffs, conducting staff meetings, planning the project and making all editorial decisions. Editor-in-Chief must commit a minimum of one period a day to the project; other senior editors must commit two to three periods a week.

LW10 - Creative Writing Workshop I Entry Level (F, 3) - A small group workshop for freshmen or beginning writers designed to increase creative writing skills. Meeting once a week, the workshop focuses on introductory techniques for writing poetry, short fiction and personal essays.

LW11 – Creative Writing Workshop II Advanced (S, 3)– The final workshop for advanced creative writing students, this course is designed primarily for upper classmen. The project emphasis will be on completing longer, more polished pieces of poetry, fiction, drama and personal essay. The emphasis will be on writing for publication. The course will include a component that will deal with writing the college application essay.

LW12 - Student Columnist (Y, 2) - Students will become active contributors to our school on-line publication “Woodland Hills Update”. All columnists will be required to attend three training workshops before they become official reporters.

LW13 – Literature Seminar I (F, 4) – Students will read five longer works that fall within a thematic pattern. Through a series of weekly workshops students will analyze and discuss the literature. The project will culminate with a competition and large group discussion that will require students to demonstrate critical understanding of the authors, texts and historical perspectives.

LW14 – Literature Seminar II (F, 4) – Students will read and analyze five challenging novels that will extend the thematic pattern established in the first course. The novels discussed will include both classic and contemporary works. As with the first course, the culminating project will include a demonstration and discourse of the significance of these evocative pieces of literature in the student’s lives.

LW15 - Literature Seminar III (F, 4) - Students will read four novels that are both challenging and enlightening. These reading assignments will deepen their appreciation of literary themes and styles. Students will be exposed to various theories of literary criticism that will be used in their analysis of the novels. The final activity will be a selection of literature from one of the writers studied accompanied by a book review presented to the class.

LW16 – Great Conversations (S, 3) – This class will be in a seminar format with each class devoted to the philosophical perusal of formative and challenging thought. Students will read from an anthology containing interdisciplinary selections and discuss these ideas in class. From Prometheus to Carl Jung, students will be exposed to many of the ideas that have shaped our world. This will be a semester course for eleventh and twelfth graders.

LW17 - The Art of the Short Story (F, 4) – This course will look at the short story from conception to written form. Through discussion, students will explore all the elements of literature as well as the writer’s intent in creating the story. This course will expose students to internationally acclaimed writers whose literary accomplishments are significant. Biographical information about the authors will be an integral part of our interpretive discussions.

LW18 - Theories of Literary Criticism (S, 4) - The students will study various forms of literary criticism and make theses applicable to specific short stories. As a class, we will review ten critical approaches to literature and discuss how writers use these concepts to reveal meaning in their work. The class will involve discussion of various short stories in terms of their alignment with specific literary critical theory.

LW19 - Career Seminar (Y, 2) – This series of workshops will be conducted by professionals from the community allowing students to become aware of various career fields. Students will become acquainted with the different aspects of each field including educational requirements and future job prospects.

LW20 – A History of Social Society in America (F, 3) - The course will consider the complexities of social changes through a study of literature, architecture, film, art, inventions, human geography, and a myriad of social conventions and organizations. The course content will examine how various customs and ideologies develop and ultimately affect the way Americans live their lives. The class will culminate in an independent research project investigating the impact of one of these areas of social influence.

LW21 – Pittsburgh Ethnic Neighborhoods (S, 4) - This course will explore the unique nature of Pittsburgh neighborhoods by studying their ethnicity, topography, personality and industry through literature, film, history and eyewitness accounts. Various field trips are planned designed to enhance student’s appreciation for the rich history and contributions of Pittsburghers. Students will choose a celebrated Pittsburgh personality, assume the persona of this person and be interviewed by the teacher. A presentation of achievements (artifacts) will be presented during the interview as well as commentary on their times. This project will be part of the course.

LW22 – Science Fiction Novels (F, 4) - The students will read three novels by noteworthy authors and discuss their literary and scientific significance. Both an English and Science teacher will conduct the discussions so that both perspectives are considered in the discussion. This class will last nine weeks.

SOCIAL STUDIES, LEADERSHIP & CURRENT EVENTS

ACADEMIC COMPETITIONS

SC1 - Propaganda (S, 2) - Students meet approximately ten times prior to the event to develop an understanding of propaganda skills related to techniques of self-deception, language, irrelevance, exploitation, form, and maneuver. Students at the actual competition study video segments of propaganda techniques and then must display their understanding of the techniques and attempt to persuade fellow students to their line of thinking.

SC2 - Word Master (S, 2) - An academic competition sponsored by ESSPA. Students meet approximately eight to ten times prior to the event. The competition will consist of five rounds of play, including creating words with scrabble tiles, racing to rearrange SAT word syllables, building “word chains” and more. In the process, students will familiarize themselves with SAT words while engaging in an intellectually stimulating activity.

SC3 - World Events (S, 3) - This is an ESSPA competition that tests students' knowledge of current events and a thematic event. Students must provide their own research notes to answer questions on a thematic topic. Students will meet approximately twelve times prior to the competition to practice current events and construct a research notebook. The thematic topic for this year will be: *The American Revolution and will include categories such as Leaders & Personalities, Battles of the American Revolution, Weapons & Technology, Cultural Aspects: Literature, Songs, Paintings, etc; Foreign and Indian Involvement, Politics & Government and Important Documents & Individuals.*

SC4 – Westfield Insurance Hometown High Q – (S, 2) This televised academic competition tests the knowledge of students on a wide variety of topics. Students compete as a three-person team against two other school districts at the KDKA television studios. If the team wins its first match, it then proceeds to the playoff round and continues until there is an eventual winner. Students must qualify to become part of the team by participating in a pre-test.

SC5 - University of Pittsburgh Quiz Bowl (SAGACITY) (S, 2) - This academic competition sponsored by the University of Pittsburgh tests the knowledge of students on a wide variety of topics. Held at the Cathedral of Learning in the fall, teams of four students compete against other teams from different school districts in ten rounds of academic questions. Students meet prior to the competition to practice with their knowledge of a variety of subjects. Students must qualify to become part of the team by participating in a pre-test.

SPECIAL EVENTS

SC6- Mock Trial Competition (Y, 5) - Students will participate in a simulated court case in which they prepare and assume roles as lawyers, witnesses, plaintiffs and defendants in trial cases involving important issues of today. With the assistance of an actual attorney advisor plus a teacher, students present and challenge evidence given by other high schools in simulated courtroom trials before a judge and jury of local lawyers and paralegals. By experiencing the courtroom drama, students will gain a greater understanding and appreciation of our legal system.

WORKSHOPS AND SEMINARS

SW1 - Green Schools-Best Environmental Practices (Y, 4) - Students will explore the notion of "green schools" by discussing various topics. These topics will include: sustainability, designing and planning a garden, outdoor classroom and school ground habitat rehabilitation, "greening" the school, planting, growing, and selling plants, flowers, and fruits and vegetables and grant writing. We will make use of the greenhouse and work with the community to improve the areas around the school. Students will also participate in the Fairchild Challenge at Phipps Conservatory.

SW2 - 20th Century Architecture: Focus on Frank Lloyd Wright (F, 4) - Students will be given an introduction to architectural techniques and styles representative of the twentieth century. A special concentration will be on Frank Lloyd Wright and his unique style. Students will read about the life and works of Frank Lloyd Wright and his unique style. Through examining his work, reading about his artistic vision, and visiting Fallingwater, students will come to appreciate his contributions. Students will recreate a model of one of FLW's structures. A field trip to Fallingwater is planned.

SW3 – A Picture is Worth A 1000 Words (F, 3) – Students will participate in a program that explores the historical significance of photographs that elicited great social change. In addition, students will become photojournalists capturing local events of significance and commenting on the change in perception and understanding these photographs created. Students taking this class should enjoy history and current events.

SW4 - World Affairs Council (Y, 3) - Students participate in briefings involving monthly field trips, guest speakers and seminars featuring international, social and political leaders addressing vital issues related to international security. Students will be required to attend all sessions and conduct research as well as complete readings prior to the presentations. Completion of pre-tests and post-tests on the particular topic is required of students.

SCIENCE AND MATHEMATICS

ACADEMIC COMPETITIONS

MC01 - Science Olympiad (S, 5) - Students prepare to participate in twenty-three different science events that bring top science students throughout the state into competition. The events cover various science and math disciplines such as biology, earth science, chemistry, physics, computers and technology. This activity includes preparation and participation in the competition to be held in March at California University of Pennsylvania. The top teams at the regional competition go to the State Finals at Juniata College in April.

MC02 – Science Bowl (S, 1) – An academic competition sponsored by ESSPA in which students compete individually and as a team, testing their science knowledge. Students must qualify to become part of the team by participating in a pre-test.

MC03 - Science Fair Preparation (PJAS and PRSEF) (Y, 5) - Following ISEF guidelines, students work approximately 6 months to prepare a science project of their own selection in biology, chemistry, physics or another science oriented discipline. The project will include extensive research and lab work. Students will also be required to write a scientific paper detailing their project. Projects will be entered into the Pennsylvania Junior Academy of Science competition during the month of February and the Pittsburgh Regional Science and Engineering Fair competition during the month of March.

MC04 – E.A.E.A.O. (S, 2) - This engineering competition, offered through EPSSPA and sponsored by the East Allegheny Experimental Apparatus Organization, involves four experimental contests dealing with innovative and creative solutions. Students must design such items as a mousetrap racecar, a bridge, a catapult and a remote control car. Students will measure such concepts as horizontal displacement, speed and weight distribution. In the process, they will understand and apply various rules of physics.

MC06 – CalcuSolve 9-10 (F, 4) – This program is open to all ninth and tenth grade students and involves preparation for the CalcuSolve competition. The CalcuSolve competition is sponsored by ESSPA and consists of four member teams working to solve higher-order mathematics problems. Preparations for this competition involve a series of approximately five exams covering various areas of mathematics up to and including Algebra II. Each exam will have a follow up class where we will discuss possible solutions for each exam question. The tests are administered locally at WHHS. Top scorers will represent Woodland Hills in the CalcuSolve competition.

MC07 - CalcuSolve 11-12 (F, 4) – This program is open to all eleventh and twelfth grade students and involves preparation for the CalcuSolve competition. The CalcuSolve competition is sponsored by ESSPA and consists of four member teams working to solve higher-order mathematics problems. Preparations for this competition involve a series of approximately five exams covering various areas of mathematics up to and including Statistics and pre-Calculus. Each exam will have a follow up class where we will discuss possible solutions for each exam question. The tests are administered locally at WHHS. Top scorers will represent Woodland Hills in the CalcuSolve competition.

MC08 - Equations (F, 2) - This competition is sponsored by ESSPA. Equations is a game of creative mathematics involving various arithmetic operations ranging from simple addition to exponentiation. Students meet approximately six times prior to the competition to practice their skills.

MC09 – Math Team 9-10 (S, 3) – This program is open to all ninth and tenth grade students and involves using a Jeopardy style approach to enhance math skills up to and including Algebra II. Students will receive enrichment in a special areas topic involving statistics and probability.

MC10 – Math Team 11-12 (S, 3) – This program is open to all eleventh and twelfth grade students and involves using a Jeopardy style approach to enhance math skills up to and including Statistics and Pre-Calculus. Students will receive enrichment in a special areas topic involving statistics and probability.

MC11 – Computational Linguistics (F, 1) – This program is sponsored by Carnegie Mellon University and is open to all students. Students will prepare and participate in the North American Computational Linguistics Olympiad Open Competition. This event is an opportunity for students who are interested in languages and speech technologies to exercise their talents and problem-solving skills in a competitive event. Top scorers in the Open Competition will be eligible to compete in an Invitational Competition.

WORKSHOPS, SEMINARS AND RESEARCH PROJECTS

MW01 – Forensic Science (F, 4) - This workshop is opened to 10th, 11th, and 12th grade students who are interested in the real world of forensic science. We will explore various topics using both discussion and lab techniques. Some of the areas examined will be DNA identification, fingerprinting, fiber analysis, and crime scene investigation. *This course may only be taken once.*

MW02 - MedQuest I (F, 4) – The MedQuest workshops are designed for any student who is interested in the functions of the human body. The workshops are especially recommended for any student considering a career in the medical field. Students in MedQuest I will explore medical terminology, the cell, the 4 tissue types, and the integumentary system. In Spring, students may elect to participate in the MedQuest Challenge.

MW03 - MedQuest I (S, 4) – The MedQuest workshops are designed for any student who is interested in the functions of the human body. The workshops are especially recommended for any student considering a career in the medical field. Students in MedQuest I will explore medical terminology, the skeletal system, and muscular system. In Spring, students may elect to participate in the MedQuest Challenge.

MW04 - MedQuest II (F, 4) - (It is recommended but not required that students should complete MedQuest I prior to taking this workshop.) This workshop follows the same format as MedQuest I with students exploring medical terminology, the respiratory system and the cardiovascular system. In Spring, students may elect to participate in the MedQuest Challenge.

MW05 - MedQuest II (S, 4) - (It is recommended but not required that students should complete MedQuest I prior to taking this workshop.) This workshop follows the same format as MedQuest I with students exploring medical terminology, the nervous system and the endocrine system. In Spring, students may elect to participate in the MedQuest Challenge.

MW06 - MedQuest III (F, 4) - (It is recommended but not required that students should complete MedQuest I and II prior to taking this workshop.) This workshop follows the same format as MedQuest I and II with students exploring medical terminology, the lymphatic system and the digestive system. In Spring, students may elect to participate in the MedQuest Challenge.

MW07 - MedQuest III (S, 4) - (It is recommended but not required that students should complete MedQuest I and II prior to taking this workshop.) This workshop follows the same format as MedQuest I and II with students exploring medical terminology, the urinary and reproductive systems. In Spring, students may elect to participate in the MedQuest Challenge.

MW08 – MedQuest IV (F, 4) - This MedQuest is designed for seniors who have taken the previous MedQuest classes. Students will select the topics for research. These topics may include any field of study, which was not adequately explored in the previous MedQuest Workshops, or any new areas students wish to pursue. In Spring, students may elect to participate in the MedQuest Challenge.

MW09 – MedQuest IV (S, 4) - This MedQuest is designed for seniors who have taken the previous MedQuest classes. Students will select the topics for research. These topics may include any field of study, which was not adequately explored in the previous MedQuest Workshops, or any new areas students wish to pursue. In Spring, students may elect to participate in the MedQuest Challenge.

MW10 - Zoo Life (S, 3) - This workshop offers 11th and 12th grade students a survey of the animal kingdom. Topics covered will include: the nine animal phyla, common zoo mammals, the Zoo Species Survival Plan, and careers in zoology. The topics covered during the workshop will be reinforced with two separate tours of the Pittsburgh Zoo and Aquarium. Students are asked to help defray the cost of the workshop by paying approximately \$35 for the zoo tours.

MW11 - Electronic Devices Workshop I (F, 3) - This workshop, open to all grade levels, will meet weekly for one semester. Students will investigate common electrical devices such as resistors, capacitors, diodes, transistors, LEDs, photocells and speakers. These components will be combined in simple circuits to make electronic devices on breadboards, computer programs, and soldering kits. Students may elect to participate in the ESSPA sponsored Technology Challenge.

MW12 - Electronic Devices Workshop II (F, 3) – This workshop, open to all students who have completed Electronics Devises I, will meet weekly for one semester. Students will focus on applying and enhancing skills from Electronics I. Students will further their understanding of electronic circuits by using schematics to troubleshoot and repair faulty electronic devices. Students may elect to participate in the ESSPA sponsored Technology Challenge.

MW13 - Robotics (S, 3) - This hands-on program will involve students in a robotics laboratory. Students will model real life mechanisms using logic and problem solving skills to study math, science, technology, and engineering concepts. Students will construct a working robot and use various programming languages to program their robot to perform specific duties.

MW14 - Genetics (S, 4) – (More info to come)

SHORT TERM ENRICHMENT ACTIVITIES

These additional programs may be available to gifted students throughout the regular school year/and or summer. They will not be listed as part of the Gifted Individualized Educational Program (GIEP) but may be added to a student's letter of accomplishment pending completion of the activity.

ZW01 - Orientation to Gifted Programs - All students in Gifted will be registered for a specially designed program to enhance their experience in Gifted Classes and prepare them for the rigors of high school. Besides reviewing time management and study habits, the focus of instructional time will be an orientation to the process of building a resume that reflects their academic time in gifted. An online tutorial will help students build a resume that can be refined for their purposes as they approach their senior year. A series of embedded resources will be available to gifted students via their e-mail accounts or the gifted web page. All of this preparation will be stored electronically so that all of their experiences in gifted can be accounted for on their resume. This orientation is required for all of our students before classes begin in the fall.

ZW02 - Chemistry Olympics - Students compete as a three-member team conducting labs focusing on such categories as aqueous equilibrium, food analysis, quantitative or qualitative analysis, etc. Students should be currently enrolled in Chemistry I or A. P. Chemistry to register. This activity occurs at the end of the school year at the University of Pittsburgh.

ZW03 - Westinghouse Science Honors Institute (juniors only) - A series of twelve Saturday morning lectures covering a range of topics in all areas of chemistry and physics. Students must submit an application to Westinghouse Institute. The Institute makes the final selection. The final selection of students is at the discretion of WSHI. All workshops are conducted off campus; students must provide their own transportation.

ZW04 - Senator Sean Logan Student Government Seminar – This one-day activity sponsored by Senator Sean Logan will focus on the operation of state government and in particular the introduction and passage of bills dealing with controversial issues. The number of students permitted to attend is generally limited with preference given to students who have participated in social studies activities such as World Affairs Council, Model U.N., World Events, etc.

ZW05- Introduction to Latin (Y, 5) – In this course that will meet twice a week, students will develop the fundamental concepts and building blocks of the Latin language. Students will learn how to decline nouns and adjectives and how to conjugate Latin verbs. They will memorize Latin vocabulary, translate sentences, learn Latin/English derivatives, and practice basic Latin pronunciation. In addition, students in this course will be exposed to Greco-Roman culture and ancient history.

APPRENTICESHIP PROGRAMS

ZW06 - Apprenticeship Programs (Y, 3) - This program is sponsored by the Allegheny Intermediate Unit. It provides an opportunity for students to spend time, an average of one day a month, working with professionals in various fields. All workshops are conducted off campus with students providing their own transportation. Students will submit an application in May for an apprenticeship in the following school year. The current registration fee is \$50. Some programs have additional fees. Apprenticeships are available to tenth, eleventh and twelfth grade students. (Some apprenticeships are for juniors and seniors only.)

Please visit the AIU web site for more information: <http://gateapprenticeship.aiu3.net/>

Completion of this project as a part of a GIEP is contingent on the student being accepted by the AIU.

PERFORMING ARTS

PA1 – Conducting
PA2 – Contemporary Dance -Pgh Alloy
PA3 – Opera

PA4 - Acting
PA5 – Musical Theater
PA6 – Dance Academy – CLO

FINE ARTS, GRAPHIC ARTS AND MEDIA

FA01 – Architecture
FA02 – Filmmaking
FA03 – Photography
FA04 - Visual Arts
FA05 – Videography

FA06 – Art Careers
FA07 - Journalistic Careers
FA08 - Broadcast Journalism
FA09 - Animation Studio
FA10 - Digital Photography

LANGUAGE ARTS, EDUCATION, CREATIVITY & REASONING SKILLS

LA1 – Education
LA3 – Short Fiction
LA4 - Screen Writing
LA5 - Journalism Writing

LA6 - Play Writing
LA7 – Advertising/Public Relations
LA8 – Memoir

SOCIAL STUDIES, LEADERSHIP & CURRENT EVENTS

SA1 - International Affairs
SA2 – Business

SA3 - Anthropology

SCIENCE AND MATHEMATICS

MA01 – Astronomy
MA02 – Engineering
MA03 -- Zoo Animal Care
MA04 – Civil / Enviro Engineering
MA05 - Marine Biology

MA06 – Nursing
MA07 - Web Page Design
MA08 – Biotechnology
MA09 – Avian Care
MA10 - Robotics