UNIVERSITY OF THE PHILIPPINES BAGUIO
Academic Catalogue 2019

UNIVERSITY OF THE PHILIPPINES BAGUIO

ACADEMIC CATALOGUE
2019

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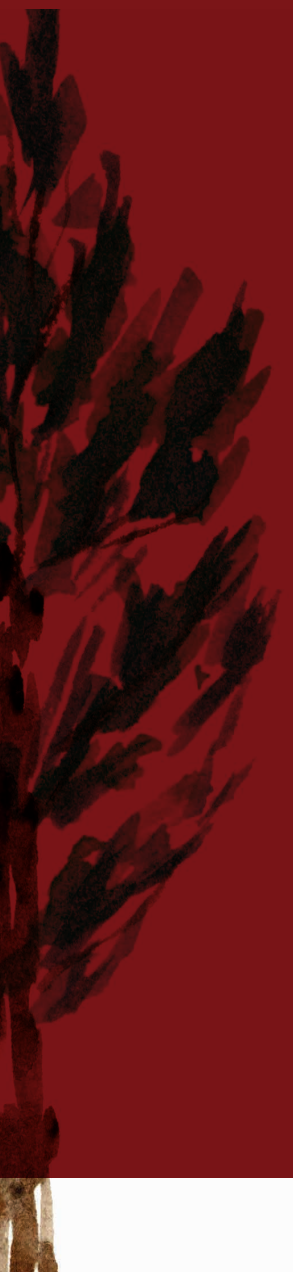


University of the Philippines Baguio

A branch of the College of Liberal Arts, University of the Philippines was established in Vigan, Ilocos Sur in 1921. After some years, the College was transferred to Baguio in 1938 and continued operations under the name of College of Arts and Sciences. Classes were held in the government buildings at the Government Center until the outbreak of World War II when the buildings and facilities were totally destroyed by military operations.

After the war, serious efforts were exerted by UP alumni in Baguio to reestablish the College. Under the leadership of its presidents, the UP Alumni Association, Baguio chapter, approved resolutions requesting University administration to reopen the College. Former Mayor Virginia de Guia, President Fernando Bautista of the Baguio Technical College, and Dr. Fernando Manalo were untiring in their efforts to reestablish the College. Although these resolutions received serious consideration from UP presidents Bienvenido Gonzales and Vidal Tan, it was not possible to accede to these immediately because the main campus itself was engaged in massive post-war reconstruction work.

Under the leadership of Dr. Ernesto Abellera, UP alumni in Baguio pursued their efforts for the reestablishment of UP in Baguio. Their first concern was to secure an appropriate site for the College. When it was learned that the US government was considering giving up the Camp John Hay reservation, it was thought that a portion of this property would be ideal for a campus. Plans for this didn't materialize so the search for a new site commenced.

UP Baguio now occupies the site that these pioneering alumni finally decided on, a pine-clad hill in the heart of a mountain city. They quite unabashedly called this site their "first love," as noted by then UP President Vicente Sinco. The support of local and national officials undergirded the efforts of the UP alumni and University administration. Among these officials were Baguio City Mayor Luis Lardizabal and the City Council, and Congressman Ramon Mitra of the second District of the Mountain Province. Approval for the reservation of 9.2 hectares for the present campus was handed down by then Philippine President Carlos P. Garcia. On March 4, 1960 the Board of Regents approved a resolution setting aside the sum of PhP100,000.00 for the construction of the UP College building in Baguio. Construction was completed in March 1961.

Since its establishment in 1961, UP in Baguio has worked at serving as the lead institution in the delivery of tertiary education in Northern Luzon, sustaining its efforts at modernization, the strengthening of curricular programs, and the active generation of knowledge through research. It is indeed as the "UP in the north" that UP Baguio has quite proudly evolved into, carving out a niche in Cordillera studies developed over the past decades. UP Baguio's distinction was affirmed by the elevation of UP College Baguio

to constituent university status, granted through a unanimous endorsement by the UP Board of Regents on December 2, 2002. UP Baguio is the 7th autonomous unit of the University of the Philippines System.

Three Colleges evolved, namely: the College of Science, from the merger of the former Division of Natural Sciences and Mathematics and the Sports, Physical Education and Recreation Division; the College of Social Sciences from the merger of the Division of Social Sciences and the Management Sciences Division (reorganized as the Institute of Management); and the College of Arts and Communication, formerly the Humanities Division. The Colleges have sought to develop innovative programs in the arts and sciences. New graduate programs were instituted, the Master of Science in Conservation and Restoration Ecology in 2015 and the Ph.D. in Mathematics program in 2017 which is the first doctoral program in the University. In response to the implementation of the K-12 Basic Education program and with the new GE program, all undergraduate programs were revised. Currently, the University offers 1 certificate course, 9 baccalaureate programs, and 6 graduate courses.

Also internationally known for its excellent record in ethnic and interdisciplinary research programs is the Cordillera Studies Center, established in 1983. Through the CSC, faculty workgroups have undertaken research on the following: local literature, biodiversity conservation, local forestry management and upland agricultural practices, urban studies, local governance and development, and ethnicity.

Like most other UP students, UP Baguio students have sharp, inquiring minds and multi-talented inclinations. Over 50 student organizations have been granted recognition, among which are academic groups, regional affiliations, fraternities and sororities, and aggrupations of special interests, like mountaineering, dance, music, theater, and debate.

The UP Baguio Alumni Association has also maintained contact with Baguio-based alumni and its other graduates through internet e-groups. The UPBAA Board is composed of doctors, judges, government workers and UP Baguio faculty. Activities have been annually carried through, including alumni forums, meetings and reunions.

ACADEMIC INFORMATION

ACADEMIC YEAR
The Academic Year is divided into two semesters of at least 16 weeks each, exclusive of registration and final examination periods. A midyear session of 6 weeks follows the second semester.

The first semester starts in August of each year; the second semester in January, and the midyear session in June.

COURSE NUMBERING
In general, courses in the lower division (freshman and sophomore years) are numbered 1 to 99; courses in the upper division (junior and senior years) are numbered 100 to 200; and graduate courses are numbered 201 to 400. Courses numbered 301 and above are generally courses in the doctoral program.

CREDIT UNIT
The unit of credit is the semester hour. Most classes taught at the University meet 3 hours a week; these classes carry 48 clock hours of instruction and 3 units of credit.

Each unit of credit is at least 16 semester-hours of instruction in the form of lecture, discussion, seminar, tutorial, or recitation or in any combination of these forms.

ACADEMIC LOAD
For undergraduate students the academic load is a maximum of 18 non-laboratory units, or 21 units including laboratory, except in courses where the normal semestral load is more than 18 units. However, graduating students with very good academic record may be permitted to carry heavier load in their last year. During the midyear session, the normal load is 6 units, but in justifiable cases the Dean may allow enrollment up to 9 units.

On the graduate level, full-time students are allowed the normal load of 12 units or a maximum load of 14 units. During the midyear session, the normal load is 6 units. Unless there is prior approval from the Dean for a heavier load, a graduate student employed on a full-time basis is allowed an academic load of not more than 10 units in any semester, whether in formal courses or in thesis work.

LANGUAGE POLICY
The UP Language Policy provides for the development and use of the Filipino language while maintaining English as a global lingua franca. The Policy states that Filipino shall be the medium of instruction in the University at the undergraduate level, within a reasonable time-frame or transition period. Graduate courses of study shall be in English, though there could very well be graduate courses of study in which the medium of instruction is Filipino. English shall be maintained as the primary international language in the University to serve as its chief medium of access to the world's intellectual discourse.

CLASSIFICATION OF STUDENTS
Undergraduate and graduate students are designated as regular and non-regular. Regular undergraduate students follow organized programs of study and comply with requirements which lead to the bachelor's degree or undergraduate diploma/certificate. They carry the full semestral load called for by their respective curricula and for registration and classification purposes are divided generally into freshmen, sophomores, juniors, and seniors.

Regular graduate students are prospective candidates for the master's or doctoral degree. They may be either part-time or full-time students.

Non-regular students are: (1) non-degree students, with credits; (2) non-majors, with credits; (3) cross-registrants, with credits; or (4) special students, without credit.

ADMISSION
No student shall be denied admission to the University by reason of age, sex, nationality, religious belief, or political affiliation.

Every applicant for admission shall undergo a thorough health examination. No person shall be admitted to this University who is found by the University Health Service to be suffering from dangerous, communicable, contagious, or infectious disease or who is physically unfit to take courses in any college of the University.

Every student shall, upon admission, sign the following pledge: *"In consideration of my admission to the University of the Philippines and of the privileges of a student in this institution, I hereby promise and pledge to abide by and comply with all the rules and regulations laid down by competent authority in the University and in the college or school in which I am enrolled."* Refusal to take this pledge or violation of its terms shall be sufficient cause for denial of admission or summary dismissal.

No person who has not duly matriculated may be admitted to the classes. In exceptional cases, the University Registrar may, on recommendation of the Dean concerned, authorize the admission of a visitor to a class for not more than five sessions.

ADMISSION REQUIREMENTS

Certificate Program

UP Baguio offers the Certificate in Fine Arts (CFA) program which does not require the UPCAT for admission. However applicants to the CFA must have a GWA of 80% based on their Grade 12 grades, and must pass the Talent Determination Test in lieu of the UPCAT. Application to the CFA program is made directly to the College of Arts and Communication.

Bachelor's Degree Programs

Beginning Freshmen
Graduates of accredited high schools may be admitted as freshmen on the basis of their (1) performance in the UP College Admission Test (UPCAT), (2) weighted average in the last three years of high school, and (3) choice of UP campus and the quota for specific courses/colleges set by the University.

UP College Admission Test (UPCAT)
The UPCAT is a 4-hour examination consisting of sub-tests on language proficiency, reading comprehension, mathematics, and science. It is administered in English and Filipino.

All freshman applicants are required to take the UPCAT, including honor graduates, recipients of scholarships (public and private), and Filipino and foreign graduates of secondary schools abroad. The only exceptions to this rule are applicants for admission into the pre-baccalaureate certificate or diploma programs. There are also courses which require students to pass a talent test.

Eligible to take the UPCAT are:
1. Students of DepEd-accredited high schools who have not taken the UPCAT previously and are high school seniors (Grade 12) expecting to graduate at the end of the school year; or high school graduates who have not taken and/or are not taking any college subject;
2. Those declared eligible for admission to college after taking the Philippine Educational Placement Test (PEPT)

Advanced Placement Examinations (APE)
A new freshman who qualifies for and passes the prescribed examination in basic courses in the freshman year such as Elementary analysis I, etc., within one year from his enrollment in the University, shall be given credit for corresponding subjects in his academic program provided that this privilege is not given for more than 6 units in any one discipline. These examinations are usually scheduled two weeks before registration every semester.

Application forms and more information may be obtained from the College Secretary of the college concerned.

Holders of the International Baccalaureate (IB) diploma/ certificate may apply for advanced credits for certain subjects they had taken. However, the total credits that may be granted including automatic credits shall not exceed 15 units per subject area.

Deferment of Enrollment
A qualified freshman applicant who for a valid reason cannot enroll during the semester originally applied for may apply for deferment of enrollment to the next succeeding semester by writing to the University Registrar. Such applicant must not take any academic college subject prior to enrollment. The maximum period allowed by the University for deferment of enrollment is one year.

Beginning Foreign Freshmen
Applicants who graduated from high schools abroad and who have not enrolled in college may be admitted as beginning freshmen into a non-quota program without taking the UPCAT provided that they meet the following requirements:

1. Completion of a high school program in the country where s/ he had their secondary education (including the completion of a one- or two-year pre-university education in a country where such is a prerequisite for admission to a bachelor's degree program);

2. Qualification for college admission by any of the following national or international foreign-administered examinations: the SAT, OR General Certificate Education (GCE) Examination, OR the International Baccalaureate Diploma (IB), OR other equivalent examinations approved by UP:

   SAT: minimum total score of 1270 (620 for Math and 650 for Evidence-based Writing + Critical Reading); score must not have been more than 4 years before application)

   GCE: 2 ordinary (O) level passes and 3 advanced (A) level passes

   IBE: International Baccalaureate Diploma

3. In the case of an applicant whose native language or whose medium of instruction in the secondary school is not English, a minimum score (500 if paper-based or 173 if computer based) in the Test of English as a Foreign Language (TOEFL).

4. Official examination result forms should be submitted upon filing of application.

A graduate from a high school abroad who failed to satisfy the requirements for automatic admission (i.e. item 2 above) may take the UPCAT.

A Filipino who graduates from a secondary school abroad and applies for freshman admission to the University must satisfy the same requirements as those for foreign students.

A student holding dual citizenship (e.g. Filipino-American, Filipino-Chinese) who wishes to be considered as Filipino for the purpose of studying in the University of the Philippines must submit *prior to admission* a copy of the order of the Identification Certificate issued by the Bureau of Immigration. Students who choose to be classified as Filipino during their initial enrollment will be considered Filipino until their graduation.

NON-REGULAR ADMISSION

Non-Degree Students
A degree holder or undergraduate student who is not currently enrolled in any other institution of higher learning may be allowed to take courses for credit on the graduate and/or undergraduate level, respectively, provided that this student satisfies the appropriate requirements for admission to the University. He shall not be allowed to enroll for more than one semester, except by special permission of the Dean of the college concerned and the University Registrar.

Since he does not follow any organized program of study, a non-degree student is not a prospective candidate for graduation for any degree in the University.

Special Students
A mature student, even if he does not fully satisfy the entrance requirements, may be admitted as a special student and may enroll for such subjects which, in the opinion of the instructor and the Dean, he has the necessary information and ability to pursue profitably. He shall not be allowed to enroll for more than 9 units a semester or to register for more than two years, except by special permission of the Dean. Subjects taken shall be non-credit although his work may be reported at the end of each semester as "satisfactory" or "unsatisfactory".

TRANSFER STUDENTS

Transfer within UP
Students from another constituent university, who have completed at least 30 collegiate academic units, may be admitted as transfer students subject to the rules of the admitting college.

Subjects cross-enrolled will not be considered for the purpose of meeting the unit requirement.

UP students may transfer from one program to another within the college or may transfer from one program or college to another within an autonomous campus, subject to the rules of the admitting program.

Transfer from other Universities and Colleges
A student with previous college work wishing to transfer to the University must satisfy University rules indicated below on admission of transfer students. Deadlines for applications for transfer are set in the academic calendar for each academic year.

In general, transfer applicants may be admitted provided that:
1. They can present at least 33 academic units with a general weighted average of 2.00 or better for all the collegiate academic units they have taken outside the University;
2. They will have to complete in the University not less than 50% of the units required for their program, 75% if running for honors;
3. If transferring to a second degree, must complete all professional courses and all third and fourth year subjects;
4. The quota set by the Dean of the college concerned has not been filled up.

Requirements for Submission
New transfer applicants should submit the following at least one month prior to the registration period:
1. An official copy of transcript of records (true copy of grades is accepted for evaluation purposes) from all schools attended;
2. 2 pcs. Passport-sized photographs; and
3. A non-refundable application fee of PhP100.00 for Filipinos (PhP150.00 for resident foreign applicants) or US$20 for non-resident foreign applicants.

If qualified, they should submit an official copy of their transcript of records and certificate of honorable dismissal before the University admission slip can be issued. If credentials submitted are confirmed to be spurious, admission will be revoked.

Validation of Advanced Credits
Admitted undergraduate transfer students with less than 66 academic units must validate all subjects they are offering for advanced credits at the rate of at least 18 units a semester from the date of their admission. Their admission will be on probation basis until they shall have validated or repeated, in accordance with the rule on validation of courses, all subjects taken outside UP which are required for their course. No one will be allowed to enroll in a subject the prerequisite of which, taken elsewhere, has not yet been validated, or repeated, as the case may be.

Application for advanced credits should be made on the prescribed form to the Dean of the college where the student has been admitted. The regular period for validation tests is set in the academic calendar for each academic year. There is no fee for validation tests taken during the period. A validation test may be held outside of this period with the consent of the department and approval of the Dean and upon payment of a fee. A student transferee who possesses an Associate in Arts or its equivalent of 66 units of work may be enrolled without validation. Before a student is allowed to major in any discipline, however, the major discipline may prescribe additional courses up to 18 units of general education courses, and/or preparatory courses for the major.

The grant of advanced credits for courses which are completed in other institutions but which have no equivalent in this University shall be left to the faculty of the unit concerned.

FOREIGN STUDENTS TRANSFER ADMISSION
Foreign students with credits for college-level course work should meet the University requirements for transfer students.

A TOEFL score of 500, or 173 in the computerized form, is required of applicants whose medium of instruction in the school they attended is not English.

Applicants transferring from another Philippine school should secure a permit to transfer from DepEd.

Foreign freshman applicants who qualify under automatic admission as well as qualified transfer applicants may choose a degree program only from non-quota programs.

Requirements for Submission
Only properly accomplished application forms with all the requirements listed below will be processed:
1. Accomplished application form (UP Form No. 3.2);
2. A non-refundable application fee of PhP150.00 for resident foreign or US$20 for non-resident foreign students in the form of a money order, cashier's or manager's check payable to the University of the Philippines;
3. Two copies of one's official transcript of records from each high school and college attended and official certifications, if any; for evaluation purposes, photocopies of records may be accepted provided that they are properly authenticated by the Department of Education or by duly designated authorities in the country of the applicant. Final admission will be subject to verification of documents submitted against original copies of credentials. Certified English translation should also be submitted, when necessary;
4. Course syllabus, school catalogue and handbook of examination;
5. Two copies of certification from a reputable bank in the applicant's country about his/her capability to finance the travel, educational, and personal and other expenses he/she is expected to incur in his/her studies in the Philippines;
6. Official TOEFL results; and
7. Copy of birth certificate or passport duly authenticated.

Credentials filed in support of an application become the property of the University of the Philippines and will not be returned to the applicant.

Immigration Requirements
Foreign students may be allowed to enroll only if they have a student visa (9-f) or any of the following types of visa:
1. 9(e), 9(e-1) or 9(e-2) – foreign government official or dependent
2. 47(a)(2) – exchange fellow or scholar sponsored by an international organization
3. 9(g) – pre-arranged employment (working/missionary visa)
4. PD 218 – foreign investor
5. 9(d) – treaty trader
6. 13, 13(a) to 13(g) – permanent resident
7. SRR V – Special Resident Retiree Visa
8. SIR V – Special Investor Resident Visa

CROSS-REGISTRATION

Within the University
A student who wants to register in another UP campus must fill out the cross-registration form. The total number of units of credit for which students may register in another campus in this university should not exceed the maximum allowed by the rules on academic load.

Full cross-registration in any other UP campus shall be allowed only when a graduating student that particular semester needs required subject/s which is/are not offered in the student's mother campus or for health reasons necessitating prolonged medical treatment.

NOTE: Units earned as cross-registrant in another UP campus are not counted towards the 30-unit requirement for admission as a transfer student to other UP campuses. Freshmen are not allowed to cross-register.

Additional UPB Policies on Cross-registration
1. A student may cross-register only for a maximum of two semesters (excluding midyear).
2. He/she must be in good standing during the semester immediately preceding his/her cross-enrollment.
3. He/she must not have been subject to any disciplinary action.

From Another Institution
Students who are registered in another institution and who wish to cross-register in UP must present a permit from their Dean or Registrar. The permit should state, in writing, the total number of units for which the student is to be registered and the subjects that he/she is authorized to take in the University.

To Another Institution
The University gives no credit for any course taken by any of its students in any other institution unless the taking of such course was authorized by the Chancellor. Such cross-registration may be authorized if the student is graduating and the course necessary for his/her graduation is not offered in UP in that particular semester. This written authorization is to be recorded by the University Registrar and should specify the subjects authorized. Courses taken outside the University under these rules need not be validated.

WAIVER OF PREREQUISITES
Courses approved by the University Council as prerequisites to other courses may not be waived.

However, in meritorious cases, a student who has previously enrolled and fully attended a course that is a prerequisite to another may be allowed to enroll and attend the latter course for credit, without having passed or earned credit for the prerequisite course.

No permission shall be granted except upon application by the student. The application shall be accompanied by a certification that the student had fully attended the prerequisite course from the student's instructor in said course. The application, furthermore, shall be accompanied by a certification from the Director for Student Affairs that the student's failure to pass or earn credit in the prerequisite course was not due to disciplinary action imposed on him.

Each college or school shall be authorized to grant the permission, and shall act through a Dean's committee which shall determine the merit of the application, said committee to include the College Secretary.

The student who is granted permission under these rules is required to enroll in the prerequisite course simultaneously with the course to which the former is a prerequisite, or immediately in the next semester.

The permission which may be granted under these rules does not apply to courses in the General Education Program.

PE AND NSTP REQUIREMENTS

PE Requirements
Basic Physical Education is a prerequisite for graduation. All students should comply with this requirement during their freshman and sophomore years.

Eight units of PE are required of all undergraduates, except for the following:

1. Students who hold the Associate in Arts or Bachelor's degree;
2. Those who are 30 years old or more;
3. Veterans of the armed forces, navy or air force;
4. Those who have served on a full-time basis for at least 2 years in the armed forces, navy, or air force.

The required PE courses are PE 1 and any three courses classified as PE 2, 3, or 4, provided the PE 2 or 3 courses are for different activities.
PE 1 Foundations of Physical Fitness
PE 2 Physical education activities (beginners)
PE 3 Physical education activities (advanced)
PE 4 Physical education exclusively for Varsity athletes

NSTP Guidelines
Starting AY 2002-2003, all incoming freshmen, male and female, enrolled in any baccalaureate program of the university shall be required to complete six (6) units in one (1) NSTP component of their choice as a graduation requirement.

Program Components
A student can choose from the following components: Reserve Officers Training Corps (ROTC); Literacy Training Service (LTS); and Civic Welfare Training Service (CWTS).

LTS refers to the component designed to teach literacy and numeracy skills to school children, out-of-school youth, and other sectors of society in need of these services.

CWTS refers to the component or activities contributory to general welfare and betterment of life or enhancement of community facilities, especially those devoted to improving health, education, environment, entrepreneurship, safety, recreation, and morale of the citizenry and other social services.

Duration and Equivalent Course Unit
Each NSTP component shall be undertaken for a period of two (2) semesters, with fifty-four (54) training hours per semester and given a credit of 3.0 units per semester. An official form for the purpose of reporting completion of NSTP shall be provided by the College.

A one (1) summer program in lieu of the two (2) semester program may be taken except in the case of ROTC which will need coordination with the AFP.

The successful completion of the NSTP requirement is a prerequisite for graduation.

DROPPING OF COURSES
A student may, with the consent of his/her instructor and the Dean, drop a subject by filling out the prescribed UP Form 26 before 3/4 of the hours prescribed for the semester have lapsed, and not later. Any student who drops a course without the approval of the Dean shall have his/her registration privileges curtailed or entirely withdrawn. If a subject is dropped after the middle of the term, the faculty member concerned shall indicate the date and the class standing of the student at the time of dropping as either "Passing" or "Failing," solely for administrative guidance.

SUBSTITUTION OF COURSES
Every substitution of subjects must be based on at least one of the following:
1. When a student's curriculum has been superseded by a new one and the substitution tends to bring the old curriculum in line with the new;
2. When there is conflict of hours between two required subjects; or
3. When the required subject is not offered during the semester the student needs it.

Every substitution

1. Must involve subjects within the same department; if not, the two subjects concerned must be allied to each other;
2. Must be between subjects in which the subject substituted carries a number of units equal to or greater than the units of the required subject;
3. Must be recommended by the adviser and by the heads of the departments concerned.

All petitions for substitution must be submitted to the Office of the Dean concerned before 12% of the regular class meetings have been held. No substitution shall be allowed for any subject prescribed in the curriculum in which the student has failed or received a grade of "5," except when, in the opinion of the department offering the prescribed subject, the proposed substitution covers substantially the same subject matter as the required subject.

ATTENDANCE

Any student who, for unavoidable cause, absents him/herself from class must obtain an excuse slip from the Dean to be presented to the instructor concerned not later than the second class session following the student's return. In addition, in case the absence is due to illness, a certification to this effect must be secured from the medical officer of the University.

Excuses are for time missed only. All work covered by the class during the absence shall be made up for to the satisfaction of the instructor within a reasonable time from the date of absence. When the number of hours lost by absence of a student reaches 20% of the hours of the scheduled work in one class, he/she shall be dropped from the class. However, a faculty member may prescribe a longer attendance requirement to meet special needs.

If the majority of the absences are excused, the student shall not be given a grade of "5" upon being thus dropped; otherwise, he/she shall be given a grade of "5". Time lost by late enrollment shall be considered as time lost by absence.

GRADING SYSTEM

The work of students shall be graded at the end of each semester/midyear term in accordance with the following system:

1 1.25	Excellent
1.5 1.75	Very Good
2 2.25	Good
2.5 2.75	Satisfactory
3	Pass
4	Conditional
5	Fail
INC	Incomplete

"4" means conditional failure. It may be made up for by successful repetition of the course, or by passing a re-examination. Students are given a grade of "3" if they pass the re-examination, "5" if they fail. Only one re-examination which must be taken within the prescribed time is allowed. If a student does not remove the grade of "4" within the prescribed time, he/she may earn credit for the course only by repeating and passing it. A grade of "4" given for the first semester work of a two-semester course shall be converted to a grade of "3" if the student passes the second semester part of the same course in the same academic year; if he/she fails, the grade of "4" which he/she received for the first semester work shall be converted to a grade of "5".

The grade of "INC" is given if a student whose class standing throughout the semester is "Passing," fails to take the final examination or fails to complete other requirements for the course due to illness or other valid reasons. In case the class standing is not passing and the student fails to take the final examination for any reason, a grade of "5" is given. Removal of the "INC" must be done within the prescribed time by passing an examination or meeting all the requirements for the course, after which the student shall be given a final grade based on his/her overall performance.

Clearing of Grades of "Incomplete" or "4"

Examinations for the completion or removal of grades of "Incomplete (INC)" or "4" may be taken without fee: (1) during the regular examination period, if the subject is included in the schedule of examinations, and (2) during the removal examination period, viz., the period covering ten days preceding the registration in each semester during which case, the examination is taken at the time it is scheduled.

Clearing examinations may be taken at other times on the recommendation of the Dean and upon payment of the clearing fee. Students not in residence shall pay the registration fee besides the examination fee in order to be entitled to take the removal/completion examination.

There shall be a regular period for clearing grades of "4" and "INC" before the start of each semester. Such a grade may no longer be improved after the end of the third regular removal period immediately following the semester/term in which the grade was incurred. A grade of "4" received after clearing a grade of "INC," however, must be removed within the remaining portion of the prescribed period for the clearing of the original grade of "INC."

NOTE:

1. No removal/completion examination should be given without a duly approved permit to take such examination (NO PERMIT, NO EXAM). The Office of the University Registrar will not accept any removal/completion grade without the accompanying approved permit for examination.
2. The removal or completion grades and the date of the examination must be hand-written on the report of grades by the instructor.
3. Removal/completion grades shall be submitted one week after the examination is given.

Change of Grades

A student who has received a passing grade in a given course is not allowed a reexamination for the purpose of improving his/her grade.

No faculty member shall change any grade after the report has been filed with the Secretary of the college or with the University Registrar. In exceptional cases, as where an error has been committed, the instructor may request authority from the faculty of his/her college to make the necessary change. If the request is granted, a copy of the resolution of the faculty authorizing the change shall be forwarded to the Office of the University Registrar for recording and filing.

Notwithstanding the foregoing provision and to avoid any injustice, the grade on a final examination paper may be revised by a committee of the Dean of the college if it should clearly appear, on the basis of the quality of the scholastic record of the student, that such grade is the result of an erroneous appreciation of the answers or of an arbitrary or careless decision by the faculty member concerned. Should the change of the grade on said paper affect the final grade of the student, the committee may request authority from the faculty of the college to make the necessary change in the final grade. The request for reconsideration shall be made within 30 days after the receipt of the final grade by the student concerned.

No student of the University shall directly or indirectly ask any person to recommend him/her to his/her professor/s for any grade in his/her class record, examination paper, or final report of grades. Any student violating this rule shall lose credit in the subject/s regarding which such recommendation is made. The fact that a student is thus recommended shall be prima facie evidence that the recommendation is made at the request of the student concerned.

Submission of Grades

Every faculty member shall submit his/her report of grades as soon as possible after the final examinations at the end of each term. A period of five days is ordinarily allowed for each section for the grading of papers and the preparation of the report of grades. In case an instructor handles several sections and the interval between the examinations is less than five days, he/she shall submit the reports of grades for the various sections at the rate of one report at the end of every five-day period after each examination, provided, that all reports of grades must be submitted not later than seven days after the last day of the examination period. In justifiable cases, deviation from the above rules may be authorized by the Chancellor.

Penalties for Late Submission of Grades

The following implementing rules and regulations shall govern penalties applicable to faculty members who, without good reason, fail to submit grades of students within the deadline prescribed above:

1. Since the prompt submission of grades is in large part a matter of good management, discipline, and enforcement of University regulations, Department Chairperson, College Secretaries, and Deans are enjoined to bend all efforts towards compliance with codal provisions regarding deadlines for submission of grades as well as recommendations for graduation of students.
2. Faculty members who fail to meet deadlines for the submission of grades should be reported to the appropriate authorities in the University. The delinquencies should be entered in the personnel records of the erring faculty members.
3. Upon recommendation of the Dean and subject to the approval of the President, a faculty member who, without justifiable cause, fails to submit grades on time, shall be liable to any of the following penalties:
    a. Warning;
    b. Reprimand;
    c. Fine of not more than his salary per day for each day of delay: or
    d. Suspension without pay for a period not exceeding one semester in case of repeated delinquency.
4. The procedure for the imposition of any penalty shall consist of the following steps:
    a. Notification of deadline, including request for an explanation;
    b. Report of delinquency; and
    c. Order imposing the penalty.

LEAVE OF ABSENCE

A leave of absence should be requested in a written petition to the Dean. The petition should state the reason for which the leave is desired and specify the period of the leave. The leave should not exceed one year, but may be renewed for at most another year. When not taken in two successive years, the aggregate leave of absence should not exceed two years.

For leave of absence availed of during the second half of the semester, the faculty members concerned shall be required to indicate the class standing (passing or failing) of the student at the time of the application for the leave. No application for leave of absence shall be approved without indication of the student's class standing by the instructors concerned. This, however, should not be entered in the official Report of Grades. Students who withdraw after 3/4 of the total amount of hours

prescribed for the course has already lapsed, may be given a grade of "5" if their class standing up to the time of their withdrawal is below "3."

No leave of absence shall be granted later than two weeks before the last day of classes during the semester. If the inability to continue with classes is due to illness or similar justifiable causes, the student's absence during this period shall be considered excused. In such cases, the student shall be required to present an excuse slip to the faculty members concerned.

Students who withdraw from the College without formal leave of absence shall have their registration privileges curtailed or entirely withdrawn.

MAXIMUM RESIDENCE RULE
An undergraduate student must finish the requirements of a course within a period of actual residence equivalent to 1 1/2 times the normal length prescribed for the course; otherwise, he/she shall not be allowed to register further.

This rule shall not apply to graduate students who are covered by specific rules for graduate programs.

READMISSION
Applications for readmission, both on the graduate and undergraduate levels, must be filed with the Committee on Admission, Readmission, and Student Progress for proper action and recommendation to the Chancellor. The deadline for such application is set in the academic calendar for each academic year.

HONORABLE DISMISSAL
A student in good standing who desires to sever connection with the University shall present a written petition to this effect to the University Registrar, signed by his/her parent or guardian. If the petition is granted, the student shall be given honorable dismissal. Generally, honorable dismissal is voluntary withdrawal from the University with the consent of the University Registrar or his/her representative. All indebtedness to the University must be settled before a statement of honorable dismissal can be issued. The statement indicates that the student withdrew in good standing as far as character and conduct are concerned. If the student has been dropped from the rolls on account of poor scholarship, a statement to that effect may be added to the honorable dismissal.

Students who leave the University by reason of expulsion due to disciplinary action shall be allowed to obtain their academic transcript of record without reference to Dishonorable Dismissal, provided:

1. The students write an application;
2. Not less than one school year has elapsed after the effectivity of the expulsion decision;
3. The parties concerned during the period of expulsion have not been involved in any untoward incident affecting the University, or been charged in court after the fiscal's investigation; and
4. All such applications are subject to Board of Regents action.

UPB RULES ON SCHOLASTIC DELINQUENCY
(as of May 2004)

UNDERGRADUATE PROGRAMS
1. **First Probation.** Undergraduate students who, at the end of the semester, fail to pass at least 50% of the total number of academic units they are enrolled in as of the last day of late registration shall be placed on first probation for the succeeding semester.

To revert to good standing in the succeeding semester, students on first probation should pass at least 50% of the total number of academic units they are enrolled in as of the last day of late registration during the semester that they are on first probation.

2. **Second Probation.** Students on first probation who, at the end of the semester, again fail to pass at least 50% of the total number of academic units they are enrolled in as of the last day of late registration shall be placed on second probation.

To revert to good standing in the succeeding semester, students on second probation are required to pass 100% of the total number of academic units they are enrolled in as of the last day of late registration during the semester that they are on second probation.

3. Dismissal
   a. Undergraduate students who, at the end of the semester, fail in more than 75% but less than 100% of the total number of academic units they are enrolled in as of the last day of late registration shall be dropped from the rolls of the College.
   b. Students on second probation who fail to pass 100% of the total number of academic units they are enrolled in as of last day of late registration shall also be dropped from the rolls of the College.
   c. Students who fail to earn 21 units in one school year (including midyear term) shall also be dropped from the rolls of the College.
   d. Finally, students, whether graduate or undergraduate, are considered dismissed from the College if they, upon failing to enroll in any semester, fail to secure an approved Leave of Absence from the University.

Dismissed students may appeal to the Chancellor through the Committee on Admission, Readmission, and Student Progress. Should they be readmitted, they are placed on last probation, and required to pass 100% of their total load, with no "Drp" or "4" or "INC;" neither are they allowed to go on Leave of Absence (LOA) in the semester they are on probation.

Deadlines for such appeals are set in the academic calendar for each academic year.

4. Permanent Disqualification

a. Students who, at the end of the semester, do not earn any academic credit shall be permanently barred from readmission to any college or school of the University System; provided that this shall not apply to students who receive final grades in less than 12 academic units.

b. Permanent disqualification does not apply to cases where the faculty certifies that the grades of "5" were due to the student's unauthorized dropping of the subjects and not to poor scholarship. However, if the unauthorized withdrawal takes place after the mid-semester and the student's class standing is poor, his/her grade of "5" shall be counted against him/her for the purpose of this rule on scholastic delinquency.

GRADUATION REQUIREMENTS

No student shall be recommended for graduation unless he/she has satisfied all academic and other requirements prescribed for graduation.

Candidates for graduation who began their studies under a curriculum more than 10 years old shall be governed by the following rules:

1. Those who had completed all the requirements of the curriculum but did not apply for, nor were granted, the corresponding degree or title shall have their graduation approved as of the date they should have originally graduated.
2. Those who had completed all but two or three subjects required by a curriculum shall be made to follow any of the curricula enforced from the time they first attended the University to the present.

All candidates for graduation must have their deficiencies made up for and their records cleared not later than five weeks before the end of their last semester, with the exception of those courses in which the student is enrolled in during that semester.

No student shall be graduated from the University unless he/she has completed at least one year of residence work which may, however, be extended to a longer period by the proper faculty. The residence work referred to must be done immediately prior to graduation.

No student who fails to pay the required graduation fee within the specified period set by the University Registrar shall be conferred any title or degree. Such a student may, however, upon request and payment of the necessary fees, be given a certified copy of credentials without specifying completion of the requirements toward any title or degree.

Students must file formal applications as candidates for graduation in the office of the Dean of their respective colleges. Failure to do this will require special permission from the Chancellor and payment of the corresponding fine.

Graduation with Honors

Students who complete their courses with the following absolute minimum weighted average shall be graduated with honors:

Summa Cum Laude	1.20
Magna Cum Laude	1.45
Cum Laude	1.75

provided that all the grades in all subjects prescribed in the curriculum, as well as subjects that qualify as electives, shall be included in the computation of the weighted average grade; provided further that in cases where the electives taken are more than those required in the program, the following procedures will be used in selecting the electives to be included in the computation of the weighted average grade:

1. For students who did not shift programs, the required number of electives shall be selected in chronological order.
2. For students who shifted from one program to another, the electives to be considered shall be selected according to the following order of priority:
   a. Electives taken in the program where the student is graduating will be selected in chronological order.
   b. Electives taken in the previous program and acceptable as electives in the second program will be selected in chronological order.
   c. Prescribed courses taken in the previous program which qualify as electives in the second program will be selected in chronological order.

In the case of students graduating with honors in courses whose prescribed length is less than four years, the English equivalent, namely, "With Honors," "With High Honors," and "With Highest Honors," shall be used instead.

Candidates for graduation with honors must have completed in the University of the Philippines at least 75% of the total number of academic units or hours for graduation and must have been in residence therein for at least two years immediately prior to graduation. In the computation of the final average of students who are candidates for graduation with honors, only resident credits shall be included.

Students who are candidates for graduation with honors must have taken during each semester/trimester/quarter not less than 15 units of credit, or the normal load prescribed in the curriculum in cases where such normal load is less than 15 units, unless the lighter load was due to justifiable causes such as health reasons, the unavailability of courses needed in the curriculum to complete the full load, or the fact that the candidate is a working student. If a student has only 15 units remaining in his/her curriculum but one of the courses equivalent to 3 units is offered only the following semester, he/she must enroll in all the remaining 12 units during the

current semester, as required of him/her. In this case, his/ her chances of graduating with honors shall not be jeopardized.

To justify underloading, the submission of pertinent documents is required, as follows:
1. For health reasons, medical certification to be confirmed by the University Health Service.
2. For unavailability of courses, certification by the major adviser and copy of schedule of classes.
3. For employment, copy of payroll and appointment papers indicating among others duration of employment.

It is the responsibility of the student to establish beyond reasonable doubt the veracity of the cause(s) of his/her light loading. Documents submitted to establish the cause(s) of his/her light loading, such as certificate of employment and/ or medical certificate, must be sworn to. These documents must be submitted during the semester of underloading.

HONORIFIC ACADEMIC AWARDS

University Scholar
Any undergraduate student who obtains at the end of the semester an absolute minimum weighted average of 1.45 or better, or a graduate student with an absolute minimum weighted average of 1.25 or better is given this honorific scholarship. University academic awardees are listed in the President's List of Scholars.

College Scholar
Any undergraduate student who, not being classed as a University Scholar, obtains at the end of the semester an absolute minimum weighted average of 1.75 or better, or a graduate student who obtains an absolute minimum weighted average of 1.50 or better, is given this honorific academic award. College academic awardees are listed in the Dean's List of Scholars.

Additional Requirements for Honorific Awards
In addition to the general weighted average prescribed, a student must have taken at least 15 units of academic credit or the normal load prescribed during the previous semester (in the case of graduate students, not less than 8 units); and must have no grade below "3" in any academic, or non-academic subject.

Grades of "INC" must be completed by the end of the semester. (The end of the 1st semester is the day before the registration for the second semester. The end of the second semester is commencement day.)

These honorific awards shall last only for one semester, renewable for the succeeding semester if the student meets the prescribed conditions. Honorific awards do not entitle the holders to any tuition fee waiver, either partial or full.

SECOND BACCALAUREATE DEGREE
Only one baccalaureate degree may be conferred at a time. A holder of a University of the Philippines bachelor's degree may earn another bachelor's degree upon the successful completion of at least 36 additional units prescribed by a discipline, after the previous degree.

COMMENCEMENT EXERCISES
Attendance at general commencement exercises shall be optional. Graduating students who choose not to participate in the general commencement exercises must so inform their respective deans or their duly designated representatives at least ten days before the commencement exercises.

Graduating students who absent themselves from the general commencement exercises shall obtain their diplomas, or certificates, and transcripts of records from the Office of the University Registrar provided that they comply with the above provision and upon presentation of the receipt of payment of the graduation fee and student's clearance.

Academic Costumes
Candidates for graduation with degrees or titles which require no less than four years of collegiate instruction shall be required to wear academic costumes during the baccalaureate service and commencement exercises in accordance with the rules and regulations of the University.

TRANSCRIPTS
Student records are confidential and information is released only at the request of the student or of appropriate institutions. "Partial" transcripts are not issued. Official transcripts of records obtained from other institutions and which have been submitted to the University for admission and/or transfer of credit become a part of the student's permanent record and are issued as true copies with the UP transcript.

Application for transcript of records should be accompanied by a student clearance. Clearance should be applied for immediately after the last semester/trimester/term of enrollment.

GENERAL RULES GOVERNING THE MASTER'S DEGREE PROGRAMS
(Adopted from UP Diliman by the UPB University Council on April 7, 2000)

Admission
Admission to a Master's program shall require:
1. a Bachelor's degree from a recognized institution of higher learning;
2. intellectual capacity and aptitude for advanced studies and research;
3. language proficiency; and
4. satisfaction of additional University requirements such as health clearance and other special admission requirements that may be imposed by the head of the Unit concerned and/or appropriate Graduate Committee/Office, through channels.

Proof of English and/or Filipino proficiency shall be required of students whose native language is not English or Filipino, except those who graduated from institutions where the medium of instruction is English or Filipino. For English proficiency, a score of at least 500 in the Test of English as a Foreign Language (TOEFL) shall be required. For Filipino proficiency, a certification shall be required from a duly authorized unit of the University.

Each application for admission into a Master's program shall be accomplished in the official application form and accompanied by the official transcript of records, and two (2) written recommendations from former professors or experts in the field.

Each application shall be submitted to the appropriate College/Unit Graduate Office/Committee, and referred to the head of the College/Unit concerned for evaluation. The deserving applicant shall be recommended for admission by the latter to the Dean/ Director, through channels.

Applications for a system program shall be submitted to the appropriate body in the autonomous unit where the system program is being offered.

General Requirements
The Master's Degree may be obtained through either of the following two (2) options:

Thesis Option
To qualify for the Master's Degree under the Thesis Option, a student must satisfy the following requirements:
1. complete a minimum of twenty-four (24) units of formal graduate courses;
2. maintain a Cumulative Weighted Average Grade (CWAG) of "2.0" or better in his/her graduate courses at the end of each academic year;
3. successfully defend a Master's Thesis; and
4. submit at least five (5) bound and certified copies of the approved Master's Thesis.

Non-Thesis Option
To qualify for the Master's Degree under the Non-Thesis Option, a student must satisfy the following requirements:
1. complete a minimum of thirty (30) units of formal graduate courses;
2. maintain a Cumulative Weighted Average Grade (CWAG) of "2.0" or better in his/her graduate courses at the end of each academic year; and
3. pass the Master's Comprehensive Examination.

Additional Requirements
Additional requirements over and above these minimum University requirements and standards for the Master's Degree programs may be adopted by colleges/units for their respective Master's Degree programs with the approval of the appropriate bodies. A student choosing the Thesis option is encouraged to produce a pre-print paper of his thesis, where applicable.

Program Adviser/ Committee and Program of Study

The Program Adviser/Committee
Each student admitted into a master's program shall be assigned a Program Adviser who holds at least a Master's Degree or a Program Committee composed of Professors who are Master's Degree holders, except in meritorious cases. The Graduate Office/Committee of the College/Unit concerned shall recommend the Program Adviser to its respective head.

The Program Adviser/Committee shall advise, guide, and evaluate the student until he/she finishes all the requirements of the program (Non-Thesis Option) or until he/she advances to the thesis stage and is assigned a Thesis Adviser/Committee under the Thesis option.

Program of Study
Within the first semester of the student's initial year in the Master's Program, a Program of Study shall be designed by the Program Adviser/Committee in consultation with the student on the basis of the latter's academic preparation and desired specialization. A copy of this Program of Study shall be submitted to the appropriate Graduate Committee/ Office through channels. Subsequent revisions in the Program must be authorized by the Program Adviser/Committee and communicated as soon as possible to the Graduate Office, through channels.

Study Load per Semester and Trimester
The normal study load of a full-time student shall be nine (9) to twelve (12) units per semester of formal graduate courses and eight (8) to ten (10) units per trimester.

Transfer of Credits

Transfer of Credits from Another University
Subject to the recommendation of the appropriate bodies and the approval of the Dean/Director, graduate courses taken by a student in another university may be credited towards his master's program provided that:
1. these courses were taken within five years prior to admission;
2. these were validated through appropriate means by the College/Unit or Graduate Office/ Committee concerned; and
3. the total number of credits transferred shall not exceed three-eighths (3/8) of the total number of units in the student's Master's course requirements.

However, condition (2) shall not apply if the courses were taken in an institution with which the University of the Philippines has a special academic arrangement and if these courses are part of the student's approved Program of Study.

Transfer of Credits from Another Program
Subject to the recommendation of the appropriate bodies and the approval of the Dean/Director, graduate courses taken by the student under another program of the University of the Philippines may be transferred for credit to his new Master's program provided that:

1. these courses were taken during the last five (5) years prior to the student's admission or transfer to the Master's Program;
2. these units have not been credited to a degree previously obtained by the student; and
3. these courses are relevant to his/her new program.

Processing of Transfer of Credits
Transfer of credits shall be done within the first semester of the student's admission into the program. The course/s credited shall be specified in the student's record by the Graduate Office/Committee of the College/Unit concerned. A copy of the approval shall be sent to the Office of the University Registrar, through channels.

Grade Requirement

Grading System
The following numerical grades shall be used in graduate courses: 1.0 (Excellent); 1.25, 1.5 (Very Good); 1.75, 2.0 (Good); 2.25, 2.5 (Satisfactory); 2.75, 3.0 (Pass); 4.0 (Conditional Failure); INC (Incomplete); and 5.0 (Fail).

A grade of "3.0" or better is a passing grade. A graduate student earns credit for a course when he/she obtains a grade of "3.0" or better.

Cumulative Weighted Average Grade (CWAG)
The Cumulative Weighted Average Grade (CWAG) shall be based on all courses taken by the student in his/her approved Program of Study, including those taken in compliance with the Maximum Residence Rules, if applicable.

To remain in good standing, a student must maintain a CWAG of "2.0" or better in his/her course work at the end of each academic year until the completion of the Program of Study. This CWAG shall be computed by the Graduate Office/ Committee and reported by the latter to the Graduate Office, through channels.

Failure to Satisfy the Grade Requirement
A student who fails to satisfy the CWAG of "2.0" at the end of the academic year shall be disqualified from the Master's program unless the Dean/Director decides to waive the disqualification on justifiable grounds upon the recommendation of the student's Program Adviser/Committee, through channels.

Master's Thesis
(Thesis Option)

Standard for Master's Thesis
The Master's thesis shall:

1. embody an original, independent, significant, and scientific research or creative work;
2. show the student's capacity to make a critical evaluation of previous work done in his chosen research topic; and
3. demonstrate his ability to present research findings in a clear, systematic and scholarly manner.

Thesis Adviser
After the student completes the prescribed academic requirements, he/she shall request the head of the unit for a thesis adviser. The Dean/Director shall then appoint the Adviser who shall be chosen on the basis of his/her expertise in the student's research topic, upon recommendation of appropriate bodies. The Adviser shall come from the unit where the student is enrolled.

The Adviser shall be responsible for: 1) advising the student in the preparation of the thesis proposal; 2) guiding and monitoring his/her thesis research; 3) submitting a yearly evaluation report to the Graduate Committee; and 4) endorsing his/her Master's thesis for oral defense.

Thesis Committee
A Thesis Committee, consisting of the Adviser, Co-Adviser, if any, and a Reader/Critic, shall be considered upon completion of course work. The Thesis Committee shall consist of full-time regular faculty members who are Master's degree holders, except in meritorious cases. Professorial Lecturers, Professors Emeriti, and experts from outside the College/ Unit/University may also serve as Co-Adviser, Reader, and panelists upon approval by Dean/Director, through channels.

Functions of Thesis Committee
The Thesis Committee shall: 1) approve the thesis proposal; and 2) endorse the thesis proposal draft for oral defense.

Functions of Reader/Critic
The functions of the Reader/Critic are to: 1) evaluate the thesis for defense; and 2) endorse the thesis to the Oral Defense Panel.

Change of Adviser/Reader
If the Adviser/Reader goes on leave for more than one semester, the Dean/Director shall appoint a new Adviser/ Reader upon the recommendation of the appropriate bodies. A student who wishes to change an Adviser/Reader shall write the Dean/Director, through channels.

An Adviser or a Reader/Critic may request to be relieved of his/her duties for justifiable reasons.

Number of Thesis Advisees
The number of advisees (inclusive of thesis and dissertation students) shall be left to the College Graduate Faculty Council.

The Thesis Proposal
The student shall submit a written thesis proposal to the Thesis Adviser, Co-Adviser (if any) and Reader. Upon approval of the thesis proposal, the student may then carry out the thesis research. A certified copy of the approved proposal and a form endorsing the thesis proposal duly signed by the Thesis Committee shall be submitted to the Dean/Director, through channels.

Oral Defense of the Master's Thesis

Oral Defense Panel
After the student's completed draft has been approved by the Thesis Committee members, they shall endorse it for oral defense to the Dean/Director, through channels.

The Oral Defense Panel shall consist of at least three (3) and no more than five (5) full-time faculty members who are Master's degree holders except in meritorious cases. They shall be appointed by the Dean/Director upon the recommendation of the appropriate bodies. A maximum of two (2) out of five (5) or one (1) out of three (3) members of the Master's Oral Defense Panel may come from an academic institution or qualified agency outside the College/Unit or University.

The Master's Oral Defense Panel shall be chaired by one of the panelists other than the Adviser/Co-Adviser.

Administration of the Oral Defense
The Master's oral defense must be held in the College/Unit at a time recommended by the Panel and authorized by the Dean/Director, through channels.

The time and place of the Master's defense shall be officially announced by the Graduate Office/Committee concerned at least two (2) weeks before the scheduled oral defense. The schedule of the oral defense may be changed only upon the recommendation of the Oral Defense Panel, through channels, and the formal authorization of the Dean/Director.

The oral defense may be held only under the following conditions: 1) the thesis manuscript has been received by each member of the Oral Defense Panel at least two (2) weeks before the scheduled examination; and 2) all members of the Oral Defense Panel are present, except for programs that require the inclusion of a foreign Co-Adviser or foreign external examiner. If the latter is absent, he shall be required to send his comments to the Chair of the Panel who shall integrate this in the final report. If any other member of the Panel is absent, the oral defense shall be rescheduled.

The Master's oral defense shall be open to the public, the duration of which shall be left to the discretion of the Panel. However, the evaluation and rating of the student's oral defense shall be done by the Panel in a closed-door meeting to be held immediately after the oral defense.

Rating
There shall be three (3) ratings for the defense: "Pass," "Provisional Pass," or "Fail." "Fail" means substantial revisions are required by at least two of the five Panel members or one of the three Panel members. Any member who fails the student must specify the reason/s in writing, a copy of which shall be attached to the report of the Panel.

"Provisional Pass" means minor revisions are required. All members of the Panel must agree on the recommended revisions, which must be specified in writing and attached to the final report. A second rating sheet shall be signed only after the student has incorporated the revisions and the Panel has certified that the revisions have been made.

The result of the oral defense must be reported by the Panel to the Dean/Director, through channels, within the first working day after the defense.

Passing or Failing the Master's Defense
If the student passes the defense, his/her Master's thesis shall be considered approved.

If the student fails the defense, he/she may submit him/herself to a second Master's defense within one academic year after the first defense. Failure to pass the second oral defense or to retake it within the prescribed period disqualifies the student from his/her current Master's program and from being admitted into other Master's programs offered by the same unit.

Comprehensive Examination
(Non-Thesis Option)

Nature
The comprehensive examination shall be a written examination that must be taken by a student in the Non-Thesis Option. It shall aim to test the student's mastery of his/her discipline or area.

Comprehensive Examination Committee
The Comprehensive Examination Committee shall consist of a minimum of three (3) regular full-time faculty members with at least a Master's degree, except in meritorious cases. The exception shall be made only with the approval of the Dean/Director, upon the recommendation of the appropriate bodies.

Professorial Lecturers and Professors Emeriti may also serve as examiners provided they are Master's degree holders and/or known experts in their fields and have taught in the unit during the last two (2) years.

Administration
The student may apply for the comprehensive examination after 1) completing the course work; 2) obtaining a Cumulative Weighted Average Grade of "2.0" or better in all his/her courses, including those courses taken to comply with the Maximum Residence Rules; and 3) satisfying the foreign language requirement, if any.

The program Adviser/Committee shall recommend to the Dean/Director, through channels, the schedule of the Comprehensive Examination. The Dean/Director shall then appoint a Comprehensive Examination Committee of three (3) members who shall schedule, conduct and evaluate the Comprehensive Examination.

The examination shall be administered only in the officially designated examination room by the appropriate Graduate Committee/Office. The duration of the examination shall be at the discretion of the unit concerned.

The result must be officially reported by the Comprehensive Examination Committee to the Dean/Director, through channels, not later than two weeks after the examination is administered.

Rating
There shall be three ratings for the Comprehensive Examination: "High Pass," "Pass," or "Fail."

If a student fails the Comprehensive Examination, a second examination shall be allowed within one (1) year after the first. Failure to pass this second examination or to retake it within the prescribed period shall bar the student permanently from the Master's program, and from admission into other Master's programs within the same Department.

If the student passes the Comprehensive Examination, he shall qualify for the Master's degree under the Non-Thesis Option.

Residence Rules

One-year Residence before Graduation
The student must be officially enrolled for residence at least one (1) academic year prior to the conferment of the Master's degree.

Regular Period for Completion
The time limit for the completion of all Master's degree requirements shall be five (5) years.

The counting of the period of residence shall start from the student's first enrollment in a graduate course after admission into the Master's program and shall include all leaves of absence from the program. The regular period for completion for a graduate student transferring from another university shall be reduced by one (1) semester.

If there are courses taken by the student prior to his/her admission to the program and credited to his/her course requirements, then the allowed period of completion will be reduced by a number of semesters equivalent to one semester for every nine (9) units of courses credited to his program.

Extension of Residence
In meritorious cases, extensions of residence beyond the above regular period of completion may be approved by the Dean/Director upon the recommendation of the appropriate bodies. This extension shall be for a period not exceeding one (1) calendar year at a time. In no case shall the extension exceed more than five (5) years. The student granted an extension shall take additional units of graduate courses in his/her discipline or area at a rate of three (3) units for every two (2) years of extension or a fraction thereof.

Non-Compliance with Maximum Residence Rules (MRR)
Any student who fails to complete all requirements of the degree within the regular period and any approved extension thereof shall be disqualified from the Master's program.

Transfer from one Master's Option to Another
Any student in the Master's program may be allowed to transfer to another Master's option, subject to the approval of the Dean/Director, through channels.

Graduation

Application for Graduation
After the student passes the Master's defense, he shall be qualified to apply for graduation to the University Registrar through the College/Unit Graduate Office.

Submission of Bound Copies
The applicant for graduation must submit to the College/Unit Graduate Office five (5) bound copies of the approved Master's thesis as a prerequisite for graduation. The bound copies must conform to standard format of the college/unit and contain the official approval of the thesis by the members of the Oral Defense Panel, the College/Unit Graduate Office/Committee and the official acceptance of the thesis by the Dean/Director.

Conferment of the Master's Degree
After the graduation of the student shall have been recommended by the College Faculty Assembly, or appropriate body, endorsed by the University Council, and approved by the Board of Regents, he/she shall be officially conferred the Master's degree.

COLLEGE OF ARTS AND COMMUNICATION

First established as the Division of Humanities, the College of Arts and Communication (CAC) became the University of the Philippines Baguio's degree-granting unit in humanities and communication in 2002. The College envisions to be "a hub of dynamic communication, literature, language and arts scholars who embody responsibility, honor, and excellence." Moreover, CAC is committed to quality instruction in these fields of study, and to the development of highly-skilled and well-rounded individuals who have a fine sense of their professional and civic obligations.

The College is composed of two academic departments: the Department of Communication, which implements the B.A. in Communication program; and the Department of Language, Literature and the Arts, which implements the degree programs in fine arts and language and literature.

ACADEMIC PROGRAMS

Bachelor of Arts in Communication
(Concentrations in Broadcast Communication, Journalism or Speech Communication)
The BA in Communication program provides students with a deeper understanding of the critical analytical frames in the field of communication. It offers specializations in Broadcast Communication, Journalism or Speech Communication. The program allows these disciplines to share a core curriculum, providing a basis for the discussion of affinities in their substantive concerns, conceptual frameworks, methodologies and objectives. The concentration courses give the program a focus, while the option to minor in one of three areas (Broadcast Communication, Journalism or Speech Communication), provide opportunities to develop skills and to explore the interrelatedness of the communication disciplines. Moreover, it aims to produce graduates who are creative, adaptive and innovative in the use of communication media while enunciating an ethical stance and communication accountability to raise social and cultural consciousness and responsiveness.

Certificate in Fine Arts (Visual Arts)
The Certificate in Fine Arts (CFA) is a 3-year program that introduces the student to various areas of the visual arts. Designed to tap the indigenous cultures of Northern Luzon as sources of artistic inspiration, it provides many opportunities to utilize alternative sources of materials for art production. A CFA student can proceed to the BFA upon completion of the certificate program.

Bachelor of Fine Arts (Visual Arts)
The BFA curriculum is an expanded version of the Certificate in Fine Arts program, with additional general education courses, core courses, and major courses. While providing training in the traditional studio arts, the program also addresses new requirements in fine arts education and the changing demands of the visual arts profession with its courses on electronic media, photography and new production methods. Furthermore, the BFA program aims to develop well-rounded individuals who promote the study, enrichment and preservation of the traditional and contemporary art forms in the Philippines with emphasis on the indigenous art forms of the Cordillera and Northern Luzon, and can become competent visual arts practitioners, teachers, and cultural workers who embody cultural rootedness and service to the region and the nation.

Bachelor of Arts in Language and Literature
The BALL program interfaces language and literature and underlines their integrated significance in everyday life. It endeavors to approach the study of language as the application or product of a people's unique use of language, as well as the study of literature not only as the imaginative expression of a writer or of a people but also as the singular or collective contribution of a writer and a people to the development of language; and, hence, with this perspective, language and literature are understood and appreciated as interrelated areas that enrich each other. Aside from providing a balanced study of language and literature, both in English and Filipino, it also aims to promote awareness and understanding of the various cultures of the Philippines, with emphasis on the linguistic and literary traditions of Northern Luzon.

Master of Arts in Language and Literature
The MA in Language and Literature (MALL) program is designed to provide training in language and literature as intersecting fields of study. It equips its students with theoretical and pedagogic competencies in these areas of knowledge, and provides a forum for critical discussions and studies on linguistic and literary issues. It also engages its students in significant research projects on various topics related to language, literature, and the wider field of cultural studies.

RESEARCH AND CREATIVE WORK

The formation of a culture of research is an abiding concern of the College of Arts and Communication. The College has adopted a research agenda that seeks to tap discipline-based expertise as well as interdisciplinary collaboration in studying Philippine culture, with special emphasis on the culture of the Cordillera and the rest of the Northern Luzon. Individual research initiatives in the College show strong interest in regional studies, with faculty doing work on Igorot representations in media and popular culture, indigenous art motifs, Cordillera folklore and material culture, and regional languages.

As to be expected, creative work is a top priority of the CAC, and the faculty have been productive in the visual, literary, cinematic and theater arts. Its fine arts faculty are engaged in the exploration of new techniques in both traditional and new media. Although Theater Arts is no longer offered as a degree program, faculty with theater expertise continue to be active in theater work through the CAC's Dulaang UPB. The Faculty of the College are also primarily responsible in implementing the arts and culture program of the University.

EXTENSION SERVICE

Extension work is a strong point of the CAC, with faculty providing assistance to outside groups in Baguio and elsewhere, as trainers, workshop facilitators, lecturers or resource persons, activity coordinators, media consultants, etc. The College has various institutional extension programs - the Dulaang UPB, the Summer Arts Extension Program (SAEP), the Campus Journalism and Speech Communication Workshops, among many others.

The Dulaang UPB seeks not only to revitalize the theater tradition on campus but also to provide training in various aspects of theater work. A significant aspect of its mission is the promotion of development theater at the grassroots level, with community groups learning the rudiments of theater as a vehicle for the expression of vital issues.

Winner of UP's Gawad Pangulo for Excellence in Public Service in 2017, the CAC's Summer Arts Extension Program (SAEP) offers workshops for teachers, students, and other interested individuals in the visual, literary and performance arts. The Campus Journalism and Speech Communication Workshops bring CAC faculty to various cities and provinces in the Cordillera and Northern Luzon to conduct workshops on news, feature, sports, editorial writing, writing for the broadcast medium, public speaking, and others for elementary and high school students and their faculty advisers.

BACHELOR OF ARTS IN COMMUNICATION

With Concentration in Broadcast Communication, Journalism or Speech Communication
minor in Broadcast Communication, Journalism or Speech Communication

(APPROVAL: UPB UC, 20 November 2017; EVP T.J. HERBOSA, by authority of the President, 7 February 2019)

NEW GE PROGRAM	Core Courses Arts and Humanities (AH) Domain: 9 units Social Sciences & Philosophy (SSP) Domain : 9 units Natural Sciences & Mathematics (NSM) Domain: 9 units GE Electives (3 units per domain) 9 units	36 units
CORE COMMUNICATION COURSES	Comm 100, 109, 140, 150, 199.1, 199.2, 200	21 units
CONCENTRATION COURSES	Broadcast Communication Required: 27 units BC 100, 101, 103, 107, 111, 124, 130, 131, 198 Electives: 9 units Any three BC electives from: BC 104, 108, 110, 120, 122, 123, 132, 195 Journalism Required: 27 units Journ 101, 102, 103, 104, 105, 106, 112, 113, 198 Electives: 9 units Any three Journ electives from: Journ 107, 108, 110, 111, 114, 115, 124, 125, 132, 195 Speech Communication Required: 27 units SC 101, 102, 115, 130, 136, 137, 140, 190, 195 Electives: 9 units Any three Speech Comm electives from: SC 104, 118, 121, 124, 133	36 units 36 units 36 units
MINOR COURSES	Broadcast Communication Required: 15 units BC 100, 101, 103, 107, 130 Electives: 6 units Any two BC electives from: BC 104, 108, 110, 120, 122, 123, 132, 195 Journalism Required: 15 units Journ 101, 102, 103, 104, 105 Electives: 6 units Any two Journ electives from: Journ 107, 108, 110, 111, 114, 115, 124, 125, 132, 195 Speech Communication Required: 15 units SC 101, 102, 115, 130, 136 Electives: 6 units Any two Speech Comm electives from: SC 104, 118, 121, 124, 133	21 units 21 units 21 units
OTHER REQUIRED COURSES	Comm 11 / Kom 11 PI 100	6 units
ELECTIVES	To be chosen from among subjects offered in the College of Arts and Communication, College of Social Sciences or College of Science, upon recommendation of the faculty adviser	15 units
		TOTAL NUMBER OF UNITS: 135 UNITS

B.A. COMMUNICATION
Concentration: BROADCAST COMMUNICATION
Minor: JOURNALISM

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Comm 100	3	Comm 109	3
Comm 11 / Kom 11	3	BC 100	3
GE 1 – AH I (COMM 10)	3	Journ 101	3
GE 2 – SSP I (ETHICS 1)	3	GE 4 – AH II (ARTS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 5 – NSM II (SCIENCE 11)	3
P.E. 1	(2)	P.E. 2	(2)
Total	15	Total	15
SECOND YEAR			
Comm 140	3	Comm 150	3
BC 101	3	BC 107	3
BC 103	3	BC 111	3
Journ 102	3	Journ 104	3
Journ 103	3	Journ 105	3
GE 6 – SSP II (KAS 1/HIST I)	3	GE 7 – NSM III (STS 1)	3
P.E. 2	(2)	P.E. 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
Comm 199.1	3	Comm 199.2	3
BC 124	3	BC 130	3
BC Elective	3	Journ Elective	3
GE 8 – AH III (WIKA 1)	3	GE 9 – AH IV (Elective)	3
Elective	3	GE 10 - NSM IV (Elective)	3
P.I. 100	3	Elective	3
Total	18	Total	18
FOURTH YEAR			
Comm 200	3	BC 198	3
BC 131	3	BC Elective	3
BC Elective	3	GE 12 – SSP IV (Elective)	3
Journ Elective	3	Elective	3
GE 11 - SSP III (SAS 1)	3	Elective	3
Elective	3		
Total	18	Total	15
			Total number of units: 135 units

B.A. COMMUNICATION
Concentration: BROADCAST COMMUNICATION
Minor: SPEECH COMMUNICATION

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Comm 100	3	Comm 109	3
Comm 11 / Kom 11	3	BC 100	3
GE 1 – AH I (COMM 10)	3	SC 101	3
GE 2 – SSP I (ETHICS 1)	3	GE 4 – AH II (ARTS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 5 – NSM II (SCIENCE 11)	3
P.E. 1	(2)	P.E. 2	(2)
Total	15	Total	15
SECOND YEAR			
Comm 140	3	Comm 150	3
BC 101	3	BC 107	3
BC 103	3	BC 111	3
SC 102	3	SC 130	3
SC 115	3	SC 136	3
GE 6 – SSP II (KAS 1/HIST I)	3	GE 7 – NSM III (STS 1)	3
P.E. 2	(2)	P.E. 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
Comm 199.1	3	Comm 199.2	3
BC 124	3	BC 130	3
BC Elective	3	SC Elective	3
GE 8 – AH III (WIKA 1)	3	GE 9 – AH IV (Elective)	3
Elective	3	GE 10 - NSM IV (Elective)	3
P.I. 100	3	Elective	3
Total	18	Total	18
FOURTH YEAR			
Comm 200	3	BC 198	3
BC 131	3	BC Elective	3
BC Elective	3	GE 12 – SSP IV (Elective)	3
SC Elective	3	Elective	3
GE 11 - SSP III (SAS 1)	3	Elective	3
Elective	3		
Total	18	Total	15
			Total number of units: 135 units

B.A. COMMUNICATION
Concentration: JOURNALISM
Minor: BROADCAST COMMUNICATION

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Comm 100	3	Comm 109	3
Comm 11/Kom 11	3	Journ 101	3
GE 1 – AH I (COMM 10)	3	BC 100	3
GE 2 – SSP I (ETHICS 1)	3	GE 4 – AH II (ARTS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 5 – NSM II (SCIENCE 11)	3
P.E. 1	(2)	P.E. 2	(2)
Total	15	Total	15
SECOND YEAR			
Comm 140	3	Comm 150	3
Journ 102	3	Journ 104	3
Journ 103	3	Journ 105	3
BC 101	3	BC 107	3
BC 103	3	BC 130	3
GE 6 – SSP II (KAS 1/HIST I)	3	GE 7 – NSM III (STS 1)	3
P.E. 2	(2)	P.E. 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
Comm 199.1	3	Comm 199.2	3
Journ 106	3	Journ 112	3
Journ Elective	3	BC Elective	3
GE 8 – AH III (WIKA 1)	3	GE 9 – AH IV (Elective)	3
Elective	3	GE 10 - NSM IV (Elective)	3
P.I. 100	3	Elective	3
Total	18	Total	18
FOURTH YEAR			
Comm 200	3	Journ 198	3
Journ 113	3	Elective	3
Journ Elective	3	GE 12 – SSP IV (Elective)	3
BC Elective	3	Journ Elective	3
GE 11 - SSP III (SAS 1)	3	Elective	3
Elective	3		
Total	18	Total	15
			Total number of units: 135 units

BA COMMUNICATION
Concentration: JOURNALISM
Minor: SPEECH COMMUNICATION

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Comm 100	3	Comm 109	3
Comm 11/ Kom 11	3	Journ 101	3
GE 1 – AH I (COMM 10)	3	SC 101	3
GE 2 – SSP I (ETHICS 1)	3	GE 4 – AH II (ARTS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 5 – NSM II (SCIENCE 11)	3
P.E. 1	(2)	P.E. 2	(2)
Total	15	Total	15
SECOND YEAR			
Comm 140	3	Comm 150	3
Journ 102	3	Journ 104	3
Journ 103	3	Journ 105	3
SC 102	3	SC 130	3
SC 115	3	SC 136	3
GE 6 – SSP II (KAS 1/HIST I)	3	GE 7 – NSM III (STS 1)	3
P.E. 2	(2)	P.E. 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
Comm 199.1	3	Comm 199.2	3
Journ 106	3	Journ 112	3
Journ Elective	3	SC Elective	3
GE 8 – AH III (WIKA 1)	3	GE 9 – AH IV (Elective)	3
Elective	3	GE 10 - NSM IV (Elective)	3
P.I. 100	3	Elective	3
Total	18	Total	18
FOURTH YEAR			
Comm 200	3	Journ 198	3
Journ 113	3	Journ Elective	3
Journ Elective	3	GE 12 – SSP IV (Elective)	3
SC Elective	3	Elective	3
GE 11 - SSP III (SAS 1)	3	Elective	3
Elective	3		
Total	18	Total	15
Total number of units: 135 units			

BA COMMUNICATION
Concentration: SPEECH COMMUNICATION
Minor: BROADCAST COMMUNICATION

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Comm 100	3	Comm 109	3
Comm 11/Kom 11	3	SC 101	3
GE 1 – AH I (COMM 10)	3	BC 100	3
GE 2 – SSP I (ETHICS 1)	3	GE 4 – AH II (ARTS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 5 – NSM II (SCIENCE 11)	3
P.E. 1	(2)	P.E. 2	(2)
Total	15	Total	15
SECOND YEAR			
Comm 140	3	Comm 150	3
SC 102	3	SC 130	3
SC 115	3	SC 136	3
BC 101	3	BC 107	3
BC 103	3	BC 130	3
GE 6 – SSP II (KAS 1/HIST I)	3	GE 7 – NSM III (STS 1)	3
P.E. 2	(2)	P.E. 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
Comm 199.1	3	Comm 199.2	3
SC 137	3	SC 140	3
SC Elective	3	BC Elective	3
GE 8 – AH III (WIKA 1)	3	GE 9 – AH IV (Elective)	3
Elective	3	GE 10 - NSM IV (Elective)	3
P.I. 100	3	Elective	3
Total	18	Total	18
FOURTH YEAR			
Comm 200	3	SC 195	3
SC 190	3	SC Elective	3
SC Elective	3	GE 12 – SSP IV (Elective)	3
BC Elective	3	Elective	3
GE 11 - SSP III (SAS 1)	3	Elective	3
Elective	3		
Total	18	Total	15
Total number of units: 135 units			

BA COMMUNICATION
Concentration: SPEECH COMMUNICATION
Minor: JOURNALISM

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Comm 100	3	Comm 109	3
Comm 11/Kom 11	3	SC 101	3
GE 1 – AH I (COMM 10)	3	Journ 101	3
GE 2 – SSP I (ETHICS 1)	3	GE 4 – AH II (ARTS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 5 – NSM II (SCIENCE 11)	3
P.E. 1	(2)	P.E. 2	(2)
Total	15	Total	15
SECOND YEAR			
Comm 140	3	Comm 150	3
SC 102	3	SC 130	3
SC 115	3	SC 136	3
Journ 102	3	Journ 104	3
Journ 103	3	Journ 105	3
GE 6 – SSP II (KAS 1/HIST I)	3	GE 7 – NSM III (STS 1)	3
P.E. 2	(2)	P.E. 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
Comm 199.1	3	Comm 199.2	3
SC 137	3	SC 140	3
SC Elective	3	Journ Elective	3
GE 8 – AH III (WIKA 1)	3	GE 9 – AH IV (Elective)	3
Elective	3	GE 10 - NSM IV (Elective)	3
P.I. 100	3	Elective	3
Total	18	Total	18
FOURTH YEAR			
Comm 200	3	SC 195	3
SC 190	3	SC Elective	3
SC Elective	3	GE 12 – SSP IV (Elective)	3
Journ Elective	3	Elective	3
GE 11 - SSP III (SAS 1)	3	Elective	3
Elective	3		
Total	18	Total	15
Total number of units: 135 units			

BACHELOR OF ARTS IN LANGUAGE AND LITERATURE

(APPROVAL: UPB UC, 20 NOVEMBER 2017; EVP T.J. HERBOSA by Authority of the President, 28 JANUARY 2018)

New GE Program (effective SY 2018-2019)	Core Courses Arts and Humanities (AH) Domain: 9 units Social Sciences & Philosophy (SSP) Domain : 9 units Natural Sciences & Mathematics (NSM) Domain: 9 units GE Electives (3 units per domain) 9 units	36 units
CORE COURSES	BLL 101, 102, 107, 110, 111, 120, 121, 122, 199.1, 199.2	30 units
MAJOR COURSES	BLL 105, 112, 115, 116, 124, 131, 132, 133, 136, 138, 139, 141, 197*, 198, 200 (*To be taken twice with different topics)	48 units
PROGRAM ELECTIVES	Any two BLL Electives from: BLL 106, 108, 109, 118, 137, 140	6 units
ELECTIVES	To be chosen among subjects offered in the College of Arts and Communication, College of Social Sciences, or College of Science, upon recommendation of the faculty adviser	6 units
OTHER REQUIRED COURSES	Comm. 11/Kom. 11 3 units Language Electives to be taken in one Philippine or foreign language 6 units P.I. 100 3 units	12 units
		TOTAL NUMBER OF UNITS: 138 UNITS

B.A. LANGUAGE AND LITERATURE
Program Checklist

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 – AH I (WIKA 1)	3	GE 4 – AH II (COMM 10)	3
GE 2 – NSM I (SCIENCE 10)	3	GE 5 – NSM II (SCIENCE 11)	3
GE 3 – SSP I (KAS 1/HIST 1)	3	GE 6 – SSP II (SAS 1)	3
BLL 101	3	GE 7 – SSP III (ETHICS 1)	3
BLL 111	3	BLL 102	3
PE 1	(2)	BLL 112	3
		P.E. 2*	(2)
Total	15	Total	18
SECOND YEAR			
GE 8 – NSM III (STS 1)	3	GE 10 – AH III (ARTS 1)	3
GE 9 – SSP IV (Elective)	3	GE 11 – NSM IV (Elective)	3
BLL 105	3	GE 12 – AH IV (Elective)	3
BLL 107	3	BLL 116	3
BLL 110	3	BLL 131	3
BLL 115	3	Comm 11 / Kom 11	3
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
BLL 120	3	BLL 124	3
BLL 121	3	BLL 138	3
BLL 133	3	BLL 141	3
BLL 136	3	BLL 199.2	3
BLL 199.1	3	Program elective**	3
Program Elective**	3	Elective***	3
Total	18	Total	18
FOURTH YEAR			
BLL 122	3	BLL 139	3
PI 100	3	BLL 132	3
BLL 197****	3	BLL 197****	3
BLL 200	3	BLL 198	3
Elective***	3	Language Elective*****	3
Language Elective *****	3		
Total	18	Total	15
			Total number of units: 138 units

**PE 2 should be taken in different events.*
*** any two BLL electives from BLL 106, 108, 109, 118, 137, 140*
****To be chosen among subjects offered in the CAC, CSS, or CS upon recommendation of the faculty adviser*
*****To be taken twice with different topics*
******Student must take 6 units of any Philippine or foreign language; such units must be taken in the same language*

CERTIFICATE IN FINE ARTS (VISUAL ARTS)

(APPROVAL: UPB UC, 18 JUNE 2018; EVP T.J. HERBOSA by authority of the President, 20 MAY 2019)

PROGRAM STRUCTURE

New GE Program (effective SY 2018-2019)	Core Courses Arts and Humanities (AH) Domain* 6 units Social Sciences & Philosophy (SSP) Domain * 6 units Natural Sciences & Mathematics (NSM) Domain* 6 units *Any 2 required GE courses or a combination of 1 required GE course and 1 elective GE course	18 units
CORE COURSES	FA 10, 11, 12, 13, 14, 15	18 units
MAJOR COURSES	FA 100, 101, 102, 103, 104, 105, 110, 111, 120, 130, 140, 141, 143, 146, 160, 161, 192* *to be taken twice with different topics	54 units
PROGRAM ELECTIVES	Any two FA electives from FA 106, 115, 121, 131, 142, 144	6 units
OTHER REQUIRED COURSES	Comm 11/Kom 11 3 units P.I. 100 3 units	6 units
		TOTAL NUMBER OF UNITS: 102 UNITS

CERTIFICATE IN FINE ARTS (VISUAL ARTS)
Program Checklist

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 – AH I	3	GE 3 – AH II	3
GE 2 – SSP I	3	GE 4 – NSM I	3
FA 10	3	GE 5 – SSP II	3
FA 12	3	FA 11	3
FA 14	3	FA 13	3
PE 1	(2)	FA 15	3
		PE 2*	(2)
Total	15	Total	18
SECOND YEAR			
GE 6 – NSM II	3	Kom 11/Comm 11	3
FA 110	3	FA 111	3
FA 102	3	FA 103	3
FA 104	3	FA 105	3
FA 120	3	FA 143	3
FA 192**	3	FA 192**	3
PE 2*	(2)	PE 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
PI 100	3	FA 101	3
FA 100	3	FA 141	3
FA 130	3	FA 146	3
FA 140	3	FA 161	3
FA 160	3	FA Program Elective***	3
FA Program Elective***	3		
Total	18	Total	15
			Total number of units: 102 units

**PE 2 courses should be taken in different events*
***To be taken twice with different topics.*
****Any two FA electives from FA 106, FA 115, FA 121, FA 131, FA 142, FA 144.*

BACHELOR OF FINE ARTS (VISUAL ARTS)

(APPROVAL: UPB UC, 18 JUNE 2018; EVP T.J. HERBOSA by Authority of the President, 20 MAY 2019)

PROGRAM STRUCTURE

New GE Program (effective SY 2018-2019)	Core Courses Arts and Humanities (AH) Domain: Social Sciences & Philosophy (SSP) Domain : Natural Sciences & Mathematics (NSM) Domain: GE Electives (3 units per domain)	 9 units 9 units 9 units 9 units	36 units
CORE COURSES	FA 10, 11, 12, 13, 14, 15		18 units
MAJOR COURSES	FA 100, 101, 102, 103, 104, 105, 107, 110, 111, 120, 130, 140, 141, 143, 146, 160, 161, 190, 191, 192*, 195, 199, 200 *to be taken twice with different topics		72 units
PROGRAM ELECTIVES	Any two FA electives from FA 106, 115, 121, 131, 142, 144		6 units
OTHER REQUIRED COURSES	Comm. 11/Kom. 11 P.I. 100	3 units 3 units	6 units
TOTAL NUMBER OF UNITS: 138 UNITS			

BACHELOR OF FINE ARTS (VISUAL ARTS)
Program Checklist

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 – AH I (ARTS 1)	3	GE 3 – AH II (WIKA 1)	3
GE 2 – SSP I (KAS 1 / HIST I)	3	GE 4 – NSM I (SCIENCE 10)	3
FA 10	3	GE 5 – SSP II (SAS 1)	3
FA 12	3	FA 11	3
FA 14	3	FA 13	3
PE 1	(2)	FA 15	3
		PE 2*	(2)
Total	15	Total	18
SECOND YEAR			
GE 6 – NSM II (SCIENCE 11)	3	Kom 11/Comm 11	3
FA 110	3	FA 111	3
FA 102	3	FA 103	3
FA 104	3	FA 105	3
FA 120	3	FA 143	3
FA 192**	3	FA 192**	3
PE 2*	(2)	PE 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	18
THIRD YEAR			
PI 100	3	GE 7 – AH III (COMM 10)	3
FA 100	3	FA 101	3
FA 130	3	FA 141	3
FA 140	3	FA 146	3
FA 160	3	FA 161	3
FA Program Elective***	3	FA Program Elective***	3
Total	18	Total	18
FOURTH YEAR			
GE 8 – SSP III (ETHICS 1)	3	GE 11 – SSP IV (Elective)	3
GE 9 – NSM III (STS 1)	3	GE 12 – NSM IV(Elective)	3
GE 10 – AH IV (Elective)	3	FA 107	3
FA 190****	3	FA 191*****	3
FA 195	3	FA 200	3
FA 199	3		
Total	18	Total	15
			Total number of units: 138 units

**PE 2 should be taken in different events.*
***To be taken twice with different topics.*
****Any two FA electives from FA 106, FA 115, FA 121, FA 131, FA 142, FA 144*
*****FA 190 (Art Seminar I) shall provide the opportunity for students to study and explore interdisciplinary and collaborative work.*
******FA 191 (Art Seminar II) shall provide the opportunity for students to study and research on special topics in the arts*

MASTER OF ARTS IN LANGUAGE AND LITERATURE

(APPROVAL: VPAA DIOKNO as OIC, Office of the President, 29 October 2003)

PROGRAM STRUCTURE

CORE COURSES	MLL 201, 202, 210, 221, 227, 230, 299	21 units
ELECTIVE COURSES	MLL 203, 222, 223, 224, 225, 226, 231, 232, 233, 298	6 units
THESIS	MLL 300	6 units
LANGUAGE REQUIREMENT	Six (6) units of the same language course sequence in a foreign or Philippine language other than the student's first language	(6 units)
		TOTAL NUMBER OF UNITS: 33 UNITS

Program Checklist

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
MLL 201	3	MLL 230	3
MLL 210	3	MLL 227	3
MLL 221	3	MLL 299	3
Elective	3	Elective	3
Total	12	Total	12
SECOND YEAR			
MLL 202	3	MLL 300	6
Language Requirement*	(3)	Language Requirement*	(3)
Total	3	Total	6
			Total number of units: 33 units

**Language requirement: To earn six (6) units of the same language course sequence in a foreign or Philippine language other than the student's first language.*

NEW GENERAL EDUCATION PROGRAM (EFFECTIVE SY 2018-2019)

CORE COURSES

ARTS 1 Critical Perspectives in the Arts. A critical study of the experience, language, and the context of art. **3u.**

COMM 10 Critical Perspectives in Communication. Theories and frameworks of communication in various contexts. **3u**

WIKA 1 Wika, Kultura at Lipunan. Pagsusuri sa ugnayan ng wika, kultura at lipunan. **3u.**

GE ELECTIVES

PHILARTS 1 Philippine Arts and Culture. Approaches to Philippine Arts and Culture. **3u.**

MS 11 Reading Media. Critical approaches to the mass media; ideological, political, economic and cultural aspects of the media; strategies in reading media as texts. **3u.**

GENERAL EDUCATION (GEP) AND REVITALIZED GENERAL EDUCATION (RGEP) COURSES

Communication

1 **Communication Skills.** The development of communicative competence in English, with emphasis on effective reading and writing skills. **3u.**

2 **Basic Research Skills.** The development of basic research skills through effective reading and writing. **3u.**

English

1 **Basic English.** A content-based approach to the development of language skills and understanding of selected literary texts. **3u.**

Filipino

30 **Mapanuring Pagbasa at Pagsulat.** Kritikal na pagbasa ng iba't ibang anyo ng teksto (panitikan, komiks, pelikula, programang pantelebisyon, advertisement, atbp.), at pagsulat ng pagsusuri sa mga ito. **3u.**

Humanidades

1 **Pagbasa ng Panitikan.** Kritikal na pagbasa ng mga tula, maikling kuwento, nobela, dula, at sanaysay na hango sa panitikan ng Pilipinas at ibang bansa, at pagsulat ng pagsusuri sa mga ito. **3u.**

Humanities

1 **Reading Literature.** Critical reading of fiction, poetry, drama, essays and non-fiction narratives. **3u.**

2 **Art and Society.** The study of the visual arts, architecture, music and dance as products of the creative imagination in dynamic interaction with society. **3u.**

Komunikasyon

1 **Kasanayan sa Komunikasyon.** Paglinang sa kakayahang magpahayag sa wikang Filipino na nakatuon sa mabisa at mapanuring pagbasa, pagsulat at pakikinig. **3u.**

2 **Panimulang Pananaliksik sa Wikang Filipino.** Paglinang sa kasanayan sa paggamit ng wikang Filipino sa higit na mapanuring pag-iisip at masinop na pananaliksik. **3u**.

Media Studies

11 **Reading Media.** Critical approaches to the mass media; the ideological, political, economic, and cultural aspects of media; and strategies in reading media as texts. **3u.**

Speech Communication

10 **Basic Speech Communication.** The relationship between language and critical thinking in speech communication, with emphasis on analysis, criticism and reasoning in communication at various levels in different cultures and subcultures. **3u.**

UNDERGRADUATE COURSES

Broadcast Communication

100 **Introduction to Broadcasting.** Scope and significance of broadcasting activities in regional, national and international broadcasting systems, including studies in the development of broadcasting as an information and entertainment industry. **3u.**

101 **Broadcast Operations & Performance.** Studio and Off-Studio production operations and performance skills for radio, television and related media. **3u.**

103 **Fundamentals of Broadcast Writing.** Introduction to basic techniques in dramatic & non-dramatic writing for broadcast media. Prereq: BC 100. **3u.**

104 **Broadcast Announcing.** Principles and practice of broadcast announcing. **3u.**

108 **Field Reporting.** On-the-spot coverage of events for radio and television. Prereq: BC 107. **3u.**

107 **Broadcast News.** Radio & TV as information media. Gathering, writing, editing, delivery & presentation of radio & TV news. Prereq: BC 101. **3u.**

110 **Broadcast Music.** Music as a primary program content/element; musical genres; musical reality TV shows; music on the internet. **3u.**

111 **Broadcast Media and Society.** A critical analysis of how broadcast and related media influence and are influenced by society. Prereq: BC 100. **3u.**

120 **Documentary for Broadcast and Related Media.** Principles and production of documentary programs for radio, television, and related media. Prereq: BC 103. **3u.**

122 **Broadcast Drama.** Production of programs under the dramatic genre for radio, television, and related media; serials, drama anthologies, situational comedy programs, and musicals. Prereq: BC 103. **3u.**

123 **Entertainment Production.** Production of entertainment programs for radio, television, and related media; the variety show, game show, reality show, magazine show, and talk show. Prereq: BC 103. **3u.**

124 **Educational Programs.** Principles and production of educational and instructional programs for radio, television, and related media. Prereq: BC 103. **3u.**

130 Program Planning & Building. Concepts & methods of broadcast programming, program building & promotion. Prereq: BC 101. **3u.**

131 Broadcast Promotion & Merchandising. Introduction to radio and TV advertising as determined by station reach and listenership, commercial sponsorship, industry rates, talent costs and market analyses. Prereq: BC 100. **3u.**

132 Broadcast Management. Fundamentals of management of a broadcast organization involving aspects of business, structure and production. Prereq: BC 130. **3u.**

195 Special Topics in Broadcast Communication. Issues, concerns, current research about broadcast and related media. Prereq: BC 111. **3u.**

198 Broadcast Internship. Practical application of theories, principles and techniques in broadcasting through studio and field work in broadcast media outfits. Prereq: BC 130. **3u.**

Communication

11 Advanced College Writing. Analytical & critical study of various types of discourse to develop writing competence in the humanities, the social sciences & the natural sciences. **3u.**

100 Introduction to Communication. Survey of the development of communication, focusing on the nature, types, levels and dimensions of communication. **3u.**

109 Laws on Communication and Media. Laws and regulations on Philippine media and communication. Prereq: Comm 100. **3u.**

140 Communication Theory. Examination of major theories on the nature and processes of communication and its interrelationship with other areas or disciplines. Prereq: Comm 100. **3u.**

150 Communication Ethics. A study of ethical principles as applied in different areas of communication. Explores the ethical questions facing communicators and the origins and implications of commonly accepted ethical standards. Prereq: Comm 100. **3u.**

199.1 Communication Research Methods. Survey of quantitative, qualitative, and mixed methods; strategies and approaches in communication research. Prereq: Comm 140. **3u.**

199.2 Thesis Proposal Writing. Preparation and writing of a research proposal in communication. Prereq: Comm 199.1. **3u.**

200 Thesis. Prereq: Comm 199.2. **3u.**

Fine Arts

10 Visual Perception. Phenomena of perception and the concept of form in the visual arts. Lecture and studio work. **3u.**

11 Visual Communication. Concepts of visual organization and problem of meaning. Lecture and studio work. Prereq: FA 10. **3u.**

12 Techniques I. Problems in volume definition in terms of chiaroscuro; rendering of forms in various media. Lecture and studio work. **3u.**

13 Techniques II. Problems in schematic volume definition; renderings of forms in various media. Lecture and studio work. Prereq: FA 12. **3u.**

14 Materials I. Analysis of the nature and possibilities of basic art materials. Lecture and studio work. **3u.**

15 Materials II. Analysis of the nature & possibilities of basic art materials & their structural implications. Lecture and studio work. Prereq: FA 14. **3u.**

100 Art History. Survey of the visual arts in the Western and non-Western traditions. **3u.**

101 Art Theory. A historical study of the different theories of art, especially in relation to the artist and the socio-intellectual context in which the work could be taken. **3u.**

102 Visual Studies I. Problems of visual organization. Lecture and studio work. Prereq: FA 11. **3u.**

103 Visual Studies II. Continuation of FA 102. Lecture and studio work. **3u.**

104 Figure Drawing. Color, form, and rendering. Lecture and studio work. Prereq: FA 13. **3u.**

105 Visual Design. Lettering, typography, and layout, and their application in visual communication. Lecture and studio work. Prereq: FA 11,13,15/COI. **3u.**

106 Art Education. Pedagogical methods and techniques in handling formal and informal art classes. Lecture and practicum. Prereq: FA 100/FA 102 and FA 101. **3u.**

107 Art Management. Professional and effective organizational and promotional skills training, including exhibit development. Lecture and practicum. **3u.**

110 Philippine Art. Introduction to major traditions and movements in Philippine visual art. **3u.**

111 Philippine Traditional Art Forms. Philippine indigenous arts and crafts. Prereq: FA 110/COI. **3u.**

115 World Art. Introduction to major traditions and movements in world art. **3u.**

120 Painting I. Exploration and analysis of various concepts in painting carried in different media and techniques. Research and studio work. Prereq: FA 10, 13, 15. **3u.**

121 Painting II. Continuation of Painting I. Research and studio work. **3u.**

130 Sculpture I. Familiarization with locally-found media and techniques; proper and suitable selection of media in relief and 3-dimensional composition; stone-carving, woodcarving, terra cotta sculpture, jewelry, etc. Lecture and studio work. Prereq: FA 15. **3u.**

131 Sculpture II. Continuation of FA 130. Lecture and studio work. **3u.**

140 Editorial Design and Illustration. Designing and illustrating for various print publications such as books, newspapers, magazines, brochures, annual reports. Lecture and studio work. Prereq: FA 102 and FA 103/COI. **3u.**

141 Production for Electronic Media. Preparation of art materials for audio-visual presentations, television, and film graphics. Lecture and studio work. Prereq: FA 102, 103/ COI. **3u.**

142 Advanced Production for Electronic Media. Preparation of art materials for video-tape production, television and film animation. Lecture and studio work. Prereq: FA 141/COI. **3u.**

143 Photography. The use of the camera and laboratory techniques as tools of visual and aesthetic expression. Lecture and studio work. Prereq: FA 11, 13, 15/COI. **3u.**

144 Advanced Photography. Incorporation of the new technology of digital photography in traditional photographic methods through the development of skills in pixel-based design and printing. Lecture and studio work. Prereq: FA 143. **3u.**

146 Advertising Design and Production. Designing for advertising, advocacy campaigns, and entrepreneurial ventures, with research and production. Prereq: FA 140 and FA 105 or COI. **3u.**

160 Production Methods I. Analysis, exploration and preparation of materials for art production and reproduction. Lecture and studio work. Prereq: FA 11, 13, 15. **3u.**

161 Production Methods II. Continuation of FA 160. Lecture and studio work. **3u.**

190 Art Seminar I. Lecture and studio work. Prereq: COI. **3u.**

191 Art Seminar II. Lecture and studiowork. Prereq: COI. **3u.**

192 Art Workshop. Lecture and studio work. Prereq: COI. **3u.** To be taken twice.

195 Apprenticeship. Apprenticeship in Fine Arts and related fields. Prereq: JS.**3u.**

199 Research Methods in Art. Preparation for solo exhibition. Research, studio & field work. Prereq: SS. **3u.**

200 Bachelor's Thesis. Prereq: FA 199. **3u.**

Foreign Language

1.1 Reading and writing proficiency in a foreign language other than English. **3u.**

1.2 (Advanced). Reading and writing proficiency in a foreign language other than English. **3u.**

Journalism

101 Introduction to Journalism. History, functions, principles & standards of journalism; problems & techniques of reporting; types of news & features. **3u.**

102 Newswriting. Elements of news, methods of gathering news & organizing & writing of news stories. Practical application of principles. Prereq: Journ 101. **3u.**

103 Interpretive Journalism. Reporting beyond basic facts, providing context, analysis, and consequences. Includes writing the editorial, columns/opinion, and commentary. Prereq: Journ 101. **3u.**

104 News Editing. Function, responsibilities & symbols of copyreading; headline writing, page make-up & use of pictures; the copydesk & how it operates. Prereq: Journ 102. **3u.**

105 Feature Writing. Application of basic concepts in writing the soft news. Students learn to recognize good story ideas and to write features stories. Prereq: Journ 102. **3u.**

106 Investigative Reporting. Development of reportorial and analytical skills and techniques required for evaluating newsworthy events that have significant impact on public interest. Prereq: Journ 102. **3u.**

107 Community Journalism. Discussions on problems, concerns and the practice of community journalism. Prereq: Journ 101. **3u.**

108 Specialized Reporting. Theory and practice of reporting on any of the following areas: public affairs, finance and business, environment, science and health, peace and ethnic concerns, sports, and arts and entertainment. Prereq: Journ 102. **3u.**

110 Publications Management. Fundamentals of management of publishing organization, services, staffing, production, finances and community relations. Prereq: Journ 104. **3u.**

111 Magazine Writing & Production. Analysis & preparation of various types of magazines including industrial publications. Prereq: Journ 104. **3u.**

112 Photo Journalism. Principles and practice of photo coverage of news events. Prereq: Journ 101. **3u.**

113 Online Journalism. Principles of and trends in news and public affairs posting on the Internet. Prereq: Journ 101. **3u.**

114 Social Media and Blogging. Roles, operations, and functions of social media and blogging in journalism. Prereq: JS. **3u.**

115 Lifestyle Journalism. Journalism in various consumer-oriented fields. Prereq: JS. **3u.**

124 Advanced Photo Journalism. Documentary and ethnographic photography; intermediate techniques in photography. Prereq: Journ 112. **3u.**

125 Advanced Feature Writing. Intermediate concepts and practice in feature writing with focus on journalistic narratives. Prereq: Journ 105. **3u.**

132 Advertising & Public Relations. Fundamentals of advertising and of public relations as they apply to government, private corporations, and non-government organizations. Prereq: Journ 101. **3u.**

195 Special Topics in Journalism. Issues, concerns, and current research on journalism. Prereq: Journ 101. **3u.**

198 Journalism Internship. Practical application of theories, principles and techniques in journalism through desk and field work in print media outfits. Prereq: Journ 104. **3u.**

Komunikasyon

11 Sulating Pangkolehiyo: Pagsusuri at Pagsulat. Pagpapakadalubhasa sa analitikal at kritikal na pagbasa at sa paggamit ng Wikang Filipino sa paglalahad ng mga sulong na ideya sa iba't ibang disiplina. 3u.

Language and Literature

101 Introduction to Linguistics. A general introduction to phonology, morphology, syntax, semantics, and pragmatics, including the examination of language and its relation to other branches of knowledge. **3u.**

102 Theories of Language and Language Acquisition. Origin and nature of language, principles of language learning and acquisition. **3u.**

105 The Structure and Development of the English Language. English phonology, morphology, syntax, semantics. Prereq: BLL 101/COI. **3u.**

106 Functional Grammar. Analysis of structures of English at sentence and discourse levels. Prereq: BLL 101/COI. **3u.**

107 Principles and Theories of Reading and Writing. Theories and principles of reading and writing, and the linguistic, cognitive, sociocultural, and developmental dimensions of literacy and the interrelationships among them. Prereq: BLL 101 and BLL 102. **3u.**

108 Varieties of English. Language variation and emergent non-native Englishes. Prereq: BLL 101/COI. **3u.**

109 English for Specific Purposes. Learning English for specialized purposes in science, business, industry and the professions, including English for academic purposes. Prereq: Comm 11/Kom 11. **3u.**

110 Literary Criticism. Introduction to the analysis and evaluation of different types of literature, with emphasis on contemporary literary theory. **3u.**

111 Literary Forms and Traditions. Introduction to major genres and traditions through a study of representative texts drawn from Philippine and foreign literature. **3u.**

112 Grammatical Theories. Introduction to various grammatical theories. Prereq: BLL 101/COI. **3u.**

115 Debelopment at Istruktura ng Wikang Filipino. Pag-aaral sa balangkas at kasaysayan ng Wikang Filipino mula 1900 hanggang sa kasalukuyan; pagsusuri sa gramatikal na istruktura at iba't ibang anyo at baryasyon nito ayon sa etnolinggwistik at sosyolinggwistik na gamit. **3u.**

116 Semantics. Introductory approaches to the study of meaning in English and Filipino. Prereq: BLL 101/COI. **3u.**

118 Leksikograpi ng Wikang Filipino. Panimulang pag-aaral ng paggawa ng mga diksyunaryo sa iba't ibang wika sa Pilipinas. Prereq: BLL 115. **3u.**

120 Kasaysayan ng Panitikan ng Pilipinas. Mga tradisyon at pangunahing kalakaran sa panitikan ng Pilipinas sa mga wikang katutubo at dayuhan, mula noong panahon ng Espanyol hanggang sa kasalukuyan. Prereq: BLL 110. **3u.**

121 Interface of Language and Literature. The relationship between language and literature in the development of linguistic and literary competence. Prereq: BLL 102, BLL 110. **3u.**

122 Teaching of Language and Literature. Approaches to the teaching of language and literature. Prereq: SS. **3u.**

124 Translation. Theories and practice of translation. Prereq: JS/COI. **3u.**

131 Western Literature. Introduction to the literatures of North America and Europe, including Great Britain, in various periods. Prereq: BLL 110/COI. **3u.**

132 Asian, African and Latin American Literature. Introduction to the literatures of Asia, Africa and Latin America, in English or English translation. Prereq: BLL 110/COI. **3u.**

133 Philippine Literature in English. Major works of Philippine literature originally written in English. Prereq: BLL 110/COI. **3u.**

136 Panitikang Bayan. Mga mito, alamat, kuwentong bayan, epiko, at iba pang anyo ng panitikang bayan. Prereq: BLL 110/COI. **3u.**

137 Panitikang Pambata. Kasaysayan at estetika ng panitikang pambata sa kulturang Filipino. Prereq: BLL 110/COI. **3u.**

138 Panitikan ng Hilagang Luzon. Pahapyaw na pag-aaral sa literatura ng iba't-ibang grupong etnolinggwistik sa Hilagang Luzon. Prereq: BLL 110/COI. **3u.**

139 Panitikan ng Kordilyera. Literatura ng Bontoc, Ibaloi, Ifugao, Apayao, Kalinga, at Tingguian at ang gamit nito sa mga ritwal at gawaing sekular ng komunidad. Prereq: BLL 110/COI. **3u.**

140 Malikhaing Pagsulat. Pagsasanay sa malikhaing pag-iisip at pagsusulat ng iba't ibang anyong pampanitikan. **3u.**

141 Kulturang Popular. Inter-disiplinaryong pag-aaral at pagtalakay sa batayang anyo at nilalaman ng komiks, nobelang romansa, dulang panradyo at pantelebisyon, pelikula, sining na komersyal, at iba pang anyo ng kulturang popular sa Pilipinas. Prereq: BLL 110/COI. **3u.**

197 Selected Topics in Language and Literature. Prereq: SS. **3u.** To be taken twice with different topics.

198 Apprenticeship. Apprenticeship in language and/or literature. Prereq: JS. **3u.**

199.1 Principles and Methods of Research in Language and/or Literature. Key principles and methods of research design in language, literature, and language and literature. Prereq: JS. **3u.**

199.2 Research Proposal Writing in Language and /or Literature. Writing of research proposal in language, literature and language and literature. Prereq: BLL 199.1. **3u.**

200 Thesis. Prereq: BLL 199.2. **3u.**

Philippine Institutions

100 The Life & Works of Rizal. The significance of the life & writings of Rizal in the life of the Filipino people. Prereq: JS. **3u.**

Philippine Language

1.1 Reading and writing proficiency in a Philippine language other than Tagalog or Filipino. **3u.**

1.2 (Advanced). Reading and writing proficiency in a Philippine language other than Tagalog or Filipino. **3u.**

Speech Communication

101 Introduction to Speech Communication. Introduction to the various areas of speech communication and their interrelatedness; the study of speech communication models and processes. **3u.**

102 Intrapersonal and Interpersonal Communication. Understanding of the speech communication process within the individual; study on cognition, feelings and experiences and their relationship to various interpersonal settings. Prereq: SC 101. **3u.**

104 Nonverbal Communication. Nonverbal codes and covert subcodes; functions of nonverbal communication in various contexts. Prereq: SC 101. **3u.**

115 Bases of Speech Communication. The acoustic, physiological, phonetic, psychological and socio-cultural foundations of speech communication. Prereq: SC 101. **3u.**

118 Listening. The processes of listening in various speech communication contexts. Prereq: SC 115. **3u.**

121 Oral Interpretation. The reading of prose & poetry with emphasis on variety, range & expression; the development of adequate responsiveness – intellectual & emotional appreciation of others. **3u.**

124 Performance Art. The aesthetics, theories and principles of experimental methods of interpreting and performing literature. **3u.**

130 Culture and Speech Communication. Speech communication as defined in various cultural settings; analysis of cultural and inter-cultural speech

communication to enhance sensitivity and ability to recognize, accept and adapt to cultural diversity. Prereq: SC 115. **3u.**

133 Argumentation. Principles of argumentation — analysis, evidence, reasoning, fallacies & briefing, with application in public speaking, discussion & debate. Development of capacity to reply extemporaneously to objections. Practice in argumentative composition & delivery. **3u.**

136 Rhetoric and Forms of Public Address. Analysis of the public sphere, schema of persuasion and the construction of forms and types of public address. Prereq: SC 115. **3u.**

137 Group Communication. Principles, processes and practices of group communication. Prereq: SC 115. **3u.**

140 Introduction to Organizational Communication. Introduction to the processes and structures in organizational communication; a survey of the various levels of communication, with emphasis on the development and functions of organizational communication. Prereq: SC 137. **3u.**

190 Speech Communication Planning. Speech principles and skills related to the needs of varied groups and educational and organizational systems; emphasis on speech communication problems and needs and planning speech communication programs. Prereq: SC 137. **3u.**

195 Special Topics in Speech Communication. Issues and trends in various areas of speech communication. Prereq: SC 115. **3u.**

GRADUATE COURSES

Language and Literature

201 Theories of Language and Language Acquisition. Aspects of the study of language; the biological, psychological, and sociological considerations in language development and their impact on language education. **3u.**

202 Teaching Language and Literature. Approaches, methods and techniques for integrated language and literature teaching. **3u.**

203 Teaching Communication Arts. Approaches, methods and techniques for teaching communication arts. **3u.**

210 Contemporary Literary Theories and Critical Approaches. Modern theories and practice of literary criticism. **3u.**

221 Description and Analysis of a Language. Approaches to the study and analysis of language. **3u.**

222 Rhetoric. Principles of effective language use in writing. **3u.**

223 Semantics. Study of meaning – traditional, philosophical and pragmatics. **3u.**

224 Translation: Theory and Practice. The study of theory, principles, and current practice of translation. Prereq: COI. **3u.**

225 World Englishes and New Literatures in English. Varieties of non-native Englishes used across cultures: their structural features, differences and commonalities vis-à-vis socio-cultural context and reasons for language variation; issues of standardization and codification; and, use of varieties in literature. **3u.**

226 Discourse Analysis. Approaches to the analysis of various types of transactional communication. Prereq: COI. **3u.**

227 Instructional Materials Development and Writing. Syllabus design and production of instructional materials for different school levels. Prereq: COI. **3u**

230 Cultural Criticism. Critical analysis of contemporary cultural forms and institutions, with emphasis on the interpretation of Philippine popular culture and media forms. **3u.**

231 Literature in the Oral Tradition. The study and documentation of various types of folk literature with focus on Cordillera Literature. **3u.**

232 Contemporary Philippine Literature. Selected current Philippine literary works written in English and Filipino. **3u.**

233 World Literature. Representative literary works of the continents of the word. **3u.**

298 Special Topics in Literature and Related Arts. 3u.

299 Research in Language and Literature. Research methods used in the study of language and literature, and exploration of pertinent research topics and issues. **3u.**

300 Master's Thesis. Prereq: MLL 299. **6u.**

COLLEGE OF SCIENCE

The College of Science was established in December 2002 when the University of the Philippines Baguio became the 7th constituent university of the UP System. Evolving from the then Department of Natural Sciences and Mathematics, the College continues to take the lead in upgrading Science and Mathematics education and research in Northern Luzon.

The College comprises three departments, the Department of Biology, Department of Mathematics and Computer Science, and the Department of Physical Sciences. The Human Kinetics Program, which takes care of the Physical Education and Sports programs of UP Baguio, is also part of the College of Science.

The College offers four undergraduate programs, namely, BS Biology, BS Mathematics, BS Computer Science and BS Physics, and three graduate programs, namely, MS Conservation and Restoration Ecology, MS Mathematics, and Ph.D. Mathematics. All these academic programs prepare students for a career in education, research, or post-graduate studies. These academic programs are regularly reviewed and upgraded to address the developments of the times.

CURRICULAR PROGRAMS

The **BS Biology** program is a four-year thesis program that provides thorough grounding in the biological sciences by instilling in students important biological theories and concepts, keeping them abreast with the latest development in Biology and allied Sciences, honing their skills in research, field and laboratory work, and inculcating in them a scientific and ethical culture of science . It offers three areas of concentration: General Biology, Ecology and Systematics and Microbiology. All areas will have common core courses that will equip students with basic biological concepts and methodologies, and develop competencies in conducting research in the various field of biology.

The **BS Mathematics** program is a four-year program that provides a solid undergraduate preparation in mathematics. The curriculum covers not only the fundamentals and abstract concepts in mathematics but also important and emerging fields in applied mathematics.

The **BS Computer Science** program, which was instituted in 1996, trains students to become experts in many areas of theoretical computer science. Graduates have become highly skilled in software development and system analysis.

The **BS Physics** program which was first offered in 2002 is the only one of its kind in the region. It prepares students in theoretical and applied physics. It is a rigorous preparatory training for any career in physics whether in the academe, government, or the industry.

M.S. Conservation and Restoration Ecology (MS CaRE) is a master's level graduate program that ensures its graduates acquire 1) advanced knowledge in the basic areas of conservation and restoration ecology while keeping abreast with recent developments in these fields; 2) creative thinking in the development of research designs in conservation and restoration ecology; 3) independent and critical thinking in recognizing, analyzing and finding adequate solutions to environmental issues and problems; 4) competent

oral and written communication skills for excellent writing and presentation of scientific papers; and, 5) integrated knowledge, skills and values that will equip them to pursue Ph.D. programs.

The **MS Mathematics** program, instituted in 2001, provides students with a firm grounding in theoretical mathematics. The curriculum includes courses that further develop in the student the ability to apply mathematical tools of analysis to problems in other disciplines like Engineering, Physics, Life Sciences, Computing Sciences, Statistics, Finance and even Social Sciences.

The **Ph.D. Mathematics** program enables students to acquire advanced knowledge in pure and applied mathematics. It enhances the students' research skills to help them produce quality research outputs and become prolific mathematicians, and future leaders in the academic, industry and professional organizations.

RESEARCH THRUSTS

The College leads in basic researches in Science and Mathematics in the region. The faculty have made significant contributions to basic research in Science and Mathematics. These researches explore new theoretical directions and practical applications, highlight innovative technologies, and build on indigenous mathematical as well as biological systems in the promotion of scientific knowledge.

One of the major research thrusts of the College is environmental benchmark data generation and monitoring in the Cordillera and Northern Luzon. This thrust reflects the College's commitment to help address environmental and natural resource management issues in the region by building baseline data to aid policy and planning.

Other research interests are in the fields of Biochemistry, Microbiology and Cell Biology, Ecology and Upland Forest Biology, Ethnobotany, Natural Products, Modeling, Optimization, Population Dynamics, Analysis, Crystallography, Ethnomathematics, Plasma Physics, Semiconductor Device Physics, Superconductor Device Physics, Nanotechnology, Evolutionary Algorithms, Environmental Geology, Physical Education and Indigenous dances and games.

EXTENSION PROGRAM

The College also provides relevant, sustained, up-to-date and accessible training programs for Science and Mathematics teachers in the Northern Luzon region, mainly through its annual Summer Institute in the Natural Sciences and Mathematics (SINSM). Since 1990, SINSM has trained and updated teachers on the latest developments in theory, applications and pedagogy, as well as providing refresher courses in basic concepts in the fields of Biology, Mathematics, Computer Science, Physics, Chemistry, and Geology.

The College Lecture Series is another venue for experts in the field of Science and Mathematics to share the latest trends and scientific breakthroughs to faculty and students. It features College faculty as well as experts from other academic institutions, here and abroad.

The College maintains the UPB Northern Luzon Herbarium, which serves as a repository of information on the existing flora in the Cordillera Region. Since it was opened to the public in February 2000, it has served as a source of information for plant taxonomists and a reference for identification of flora for biology students and researchers. The herbarium has acquired more than thirteen thousand botanical specimens, gradually realizing the college's vision of making it the most comprehensive herbarium in the Cordillera region.

The HUMAN KINETICS PROGRAM

The **Program in Human Kinetics** provides service to the physical education needs of the undergraduate level. It manages the intramural sports and extramural/varsity program of the University. The HKP sustains and gives direction to the inter-government agencies sports program, the Baguio-Benguet Educational Athletic League, as well as the recreational needs of the University employees.

The HKP Faculty engage in researches on physical education principles and practices of players, coaches and students especially in the Cordillera region. Through their various extension activities, the HKP faculty assist in the training of teachers in the region on how to handle courses in physical education, sports, Philippine games and dances. They also serve the needs of teachers and coaches in the region for high altitude training in sports.

BACHELOR OF SCIENCE IN BIOLOGY

(APPROVAL: UPB UC, 18 JUNE 2018; EVP T. J. HERBOSA by Authority of the President, 28 MAY 2019)

PROGRAM STRUCTURE

New GE Program (effective SY 2018-2019)	Core Courses Arts and Humanities (AH) Domain: 9 units Social Sciences & Philosophy (SSP) Domain : 9 units Natural Sciences & Mathematics (NSM) Domain: 9 units GE Electives (3 units per domain) 9 units	36 units
CORE COURSES	Bio 100, 101, 110, 120, 140, 150, 160, 195, 198, 200.1, 200.2, Bot 109, 119, 120, Zoo 102, 111, 120, 132	68 units
REQUIRED COURSES	Chem 26, 26.1, 31, 31.1, 40, 40.1, Geol 11, Math 100, Physics 100, PI 100, PE 2 (swimming)	30 units
CONCENTRATION COURSES	ECOLOGY & SYSTEMATICS: Bio 162, 164, 165 MICROBIOLOGY: Bio 113, 123, 125, 141, 163	11 units 15 units
QUALIFIED ELECTIVES	ECOLOGY & SYSTEMATICS 2 electives to be chosen from Bio 102, 103, 161, 163, 166, 167, 197, Bot 105, 106, Zoo 112, 113 MICROBIOLOGY 2 electives to be chosen from Bio 102, 103, 121, 197 GENERAL BIOLOGY* Bio 102, 103, 161, 162, 163, 164, 165, 166, 167, 197 Bot 105, 106, Zoo 106, 112, 113 **students to choose 1 elective course from each of the following areas: Ecology, Taxonomy, Zoology, Botany and Bio/Zoo/Bot*	6-10 units 6 units 16-23 units
	TOTAL NUMBER OF UNITS: GENERAL BIOLOGY ECOLOGY & SYSTEMATICS MICROBIOLOGY	 150-157 UNITS 151-155 UNITS 155 UNITS

BACHELOR OF SCIENCE IN BIOLOGY
(GENERAL BIOLOGY)

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Biology 100	5	Zoology 102	5
Botany 109	4	Botany 119	5
GE 1 – NSM I (SCIENCE 10)	3	Chemistry 26	3
Math 100	4	Chemistry 26.1	2
GE 2- AH I (ARTS 1)	3	Biology 110	3
PE 1	(2)	PE 2 (swimming)	(2)
Total	19	Total	18
SECOND YEAR			
Chemistry 31	3	Physics 100	5
Chemistry 31.1	2	Biology 160	4
Biology 101	3	Zoology 132	5
Biology 120	5	GE 3 – SSP I (ETHICS 1)	3
Geology 11	3	GE 4 – AH II (COMM 10)	3
Zoology 111	5	PE 2	(2)
PE 2	(2)	NSTP 2	(3)
NSTP 1	(3)		
Total	21	Total	20
THIRD YEAR			
GE 5 – SSP II (KAS 1 / HIST I)	3	Biology 150	4
Chemistry 40	3	Botany 120	4
Chemistry 40.1	2	Biology 200.1	2
Biology 195	3	GE 7 – NSM II (SCIENCE 11)	3
GE 6 – AH III (WIKA 1)	3	Ecology elective	3-5
Zoology elective	4-5	Botany elective	3
Biology 198	1		
Total	19-20	Total	19-21
FOURTH YEAR			
GE 8 – SSP III (SAS 1)	3	Bio/Bot/Zoo elective	3-5
Biology 140	4	PI 100	3
Zoology 120	5	GE 9 – NSM III (STS 1)	3
Taxonomy elective	3-5	GE 10 – NSM IV (Elective)	3
Biology 200.2	2	GE 11 – AH IV (Elective)	3
		GE 12 – SSP IV (Elective)	3
Total	16-18	Total	18-20
			Total number of units: 150-157 units

BACHELOR OF SCIENCE IN BIOLOGY
(ECOLOGY & SYSTEMATICS)

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Biology 100	5	Zoology 102	5
Botany 109	4	Botany 119	5
GE 1 – NSM I (SCIENCE 10)	3	Chemistry 26	3
Math 100	4	Chemistry 26.1	2
GE 2- AH I (ARTS 1)	3	Biology 110	3
PE 1	(2)	PE 2 (swimming)	(2)
Total	19	Total	18
SECOND YEAR			
Chemistry 31	3	Physics 100	5
Chemistry 31.1	2	Biology 160	4
Biology 101	3	Zoology 132	5
Biology 120	5	GE 3 – SSP I (ETHICS 1)	3
Geology 11	3	GE 4 – AH II (COMM 10)	3
Zoology 111	5	PE 2	(2)
PE 2	(2)	NSTP 2	(3)
NSTP 1	(3)		
Total	21	Total	20
THIRD YEAR			
GE 5 – SSP II (KAS 1 / HIST I)	3	Biology 150	4
GE 6 – AH III (WIKA 1)	3	Biology 164	4
Chemistry 40	3	Biology 165	3
Chemistry 40.1	2	Biology 200.1	2
Biology 162	4	Bio / Ecology / Taxonomy Elective	3-5
Biology 195	3	GE 7 – NSM II (SCIENCE 11)	3
Biology 198	1		
Total	19	Total	19-21
FOURTH YEAR			
Biology 140	4	Bio/Ecology/Taxonomy Elective	3-5
Zoology 120	4	PI 100	3
Botany 120	4	GE 10 – NSM IV (Elective)	3
Biology 200.2	2	GE 11 – AH IV (Elective)	3
GE 8 – SSP III (SAS 1)	3	GE 12 – SSP IV (Elective)	3
GE 9 – NSM III (STS 1)	3		
Total	20	Total	15-17
Total number of units: 151-155 units			

BACHELOR OF SCIENCE IN BIOLOGY (MICROBIOLOGY)

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Biology 100	5	Zoology 102	5
Botany 109	4	Botany 119	5
GE 1 – NSM I (SCIENCE 10)	3	Chemistry 26	3
Math 100	4	Chemistry 26.1	2
GE 2- AH I (ARTS 1)	3	Biology 110	3
PE 1	(2)	PE 2 (swimming)	(2)
Total	19	Total	18
SECOND YEAR			
Chemistry 31	3	Physics 100	5
Chemistry 31.1	2	Biology 160	4
Biology 101	3	Zoology 132	5
Biology 120	5	GE 3 – SSP I (ETHICS 1)	3
Geology 11	3	GE 4 – AH II (COMM 10)	3
Zoology 111	5	PE 2	(2)
PE 2	(2)	NSTP 2	(3)
NSTP 1	(3)		
Total	21	Total	20
THIRD YEAR			
GE 5 – SSP II (KAS 1 / HIST I)	3	Biology 150	4
GE 6 – AH III (WIKA 1)	3	Biology 123	3
Chemistry 40	3	Biology 200.1	2
Chemistry 40.1	2	Biology elective	3
Biology 195	3	GE 7 – NSM II (SCIENCE 11)	3
Biology 125	3	GE 8 – SSP III (SAS 1)	3
Biology 198	1		
Biology elective	3		
Total	21	Total	18
FOURTH YEAR			
Biology 140	4	Biology 113	3
Biology 163	3	PI 100	3
Botany 120	4	Biology 141	3
Biology 200.2	2	GE 11 – NSM IV (Elective)	3
GE 9 – NSM III (STS 1)	3	GE 12 – AH IV (Elective)	3
GE 10 – SSP IV (Elective)	3	Zoology 120	4
Total	19	Total	19
			Total number of units: 155 units

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

(APPROVAL: UPB UC, 20 NOVEMBER 2017; EVP T.J. HERBOSA, by authority of the President, 1 DECEMBER 2017)

PROGRAM STRUCTURE

New GE Program (effective SY 2018-2019)	Core Courses Arts and Humanities (AH) Domain: 9 units Social Sciences & Philosophy (SSP) Domain : 9 units Natural Sciences & Mathematics (NSM) Domain: 9 units GE Electives (3 units per domain) 9 units	36 units
MAJOR COURSES	CMSC 11, 12, 55, 110, 116, 117, 123, 124, 125, 127, 128, 130, 131, 135, 141, 142, 190*, 199** *must be taken twice ** may be taken twice with different topics	57 units
FOUNDATION COURSES	Math 53, 54, 55, 101, Phys 101, 101.1, 102, 102.1	26 units
PROGRAM ELECTIVES	CMSC 161, 162, 191**, 198, Math 120, 123, 124, 134, 160, 163, 165, 170, 181, 197** or any other CMSC/Math elective from other UP units with the consent of the adviser) ** may be taken twice with different topics	9 units
FREE ELECTIVES		6 units
LEGISLATED COURSE	P.I. 100	3 units
		TOTAL NUMBER OF UNITS: 137 UNITS

BACHELOR OF SCIENCE IN COMPUTER SCIENCE
PROGRAM CHECKLIST

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
CMSC 11	3	CMSC 12	3
Math 53	5	CMSC 55	5
Math 101	3	CMSC 130	3
GE 1 - AH I (ARTS 1)	3	Math 54	5
GE 2 - NSM I (SCIENCE 10)	3	GE 3 - SSP I (ETHICS 1)	3
PE 1	(2)	PE 2	(2)
Total	17	Total	19
SECOND YEAR			
CMSC 110	3	CMSC 116	3
CMSC 131	3	CMSC 123	3
Math 55	3	Physics 102	4
Physics 101	4	Physics 102.1	1
Physics 101.1	1	GE 5 - NSM II (SCIENCE 11)	3
GE 4 - AH II (COMM 10)	3	GE 6 - SSP II (KAS 1 / HIST I)	3
PE 2	(2)	PE 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	17	Total	17
THIRD YEAR			
CMSC 117	3	CMSC 125	3
CMSC 124	3	CMSC 128	3
CMSC 127	3	CMSC 141	3
CMSC/Math Elective	3	CMSC 199	1
GE 7 - AH III (WIKA 1)	3	CMSC/Math Elective	3
GE 8 - NSM III (STS 1)	3	Free Elective	3
Total	18	Total	16
FOURTH YEAR			
CMSC 135	3	CMSC 190	3
CMSC 142	3	GE 10 - AH IV (Elective)	3
CMSC 190	3	GE 11 - NSM IV (Elective)	3
GE 9 - SSP III (SAS 1)	3	GE 12 - SSP IV (Elective)	3
Free Elective	3	CMSC/Math Elective	3
PI 100	3		
Total	18	Total	15
			Total number of units: 137 units

BACHELOR OF SCIENCE IN MATHEMATICS

(APPROVAL: UPB UC, 20 NOVEMBER 2017; EVP T.J. HERBOSA, by authority of the President, 1 DECEMBER 2017)

PROGRAM STRUCTURE

New GE Program (effective SY 2018-2019)	Core Courses Arts and Humanities (AH) Domain: 9 units Social Sciences & Philosophy (SSP) Domain : 9 units Natural Sciences & Mathematics (NSM) Domain: 9 units GE Electives (3 units per domain) 9 units	36 units
CORE COURSES	Math 29, 53, 54, 55	16 units
MAJOR COURSES	Math 101, 113, 120, 121, 122, 130, 132, 134, 136, 140, 163, 182, 198, 199, 200	44 units
QUALIFIED ELECTIVES	Math 123, 124*, 133, 137*, 150, 160, 165*, 170, 181, 190, 197* CMSC 161, 162, 191, 198 *May be taken twice	12 units
PHYSICAL SCIENCE COURSES	Phys 101, 101.1, 102, 102.1, 103, 103.1	15 units
FREE ELECTIVES		9 units
LEGISLATED COURSE	P.I. 100	3 units
		TOTAL NUMBER OF UNITS: 135 UNITS

BACHELOR OF SCIENCE IN MATHEMATICS
PROGRAM CHECKLIST

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Math 53	5	Math 54	5
Math 101	3	Math 29	3
GE 1 - NSM I (SCIENCE 10)	3	GE 4 - AH II (COMM 10)	3
GE 2 - AH I (ARTS 1)	3	GE 5 - SSP II (KAS 1 / HIST I)	3
GE 3 - SSP I (ETHICS 1)	3	GE 6 - SSP III (SAS 1)	3
PE 1	(2)	PE 2	(2)
Total	17	Total	17
SECOND YEAR			
Math 55	3	Math 113	3
Math 182	3	Math 120	3
Physics 101	4	Math 130	3
Physics 101.1	1	Physics 102	4
GE 7 - AH III (WIKA 1)	3	Physics 102.1	1
GE 8 - NSM II (SCIENCE 11)	3	GE 9 - NSM III (STS 1)	3
PE 2	(2)	PE 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	17	Total	17
THIRD YEAR			
Math 121	3	Math 140	3
Math 122	3	Math 136	3
Math Elective 1	3	Math 163	3
Physics 103	4	Math Elective 2	3
Physics 103.1	1	GE 11 - NSM IV (Elective)	3
GE 10 – AH IV (Elective)	3	Math 198	2
Total	17	Total	17
FOURTH YEAR			
Math 132	3	Math 200	3
Math 134	3	Math Elective 3	3
Math 199	3	Math/CMSC Elective	3
PI 100	3	GE 12 – SSP IV (Elective)	3
Free Elective 1	3	Free Elective 3	3
Free Elective 2	3		
Total	18	Total	15
			Total number of units: 135 units

BACHELOR OF SCIENCE IN PHYSICS

(APPROVAL: UC, 18 JULY 2018; EVP T. J. HERBOSA by authority of the President, 28 MAY 2019)

PROGRAM STRUCTURE

New GE Program (effective SY 2018-2019)	Core Courses Arts and Humanities (AH) Domain: 9 units Social Sciences & Philosophy (SSP) Domain : 9 units Natural Sciences & Mathematics (NSM) Domain: 9 units GE Electives (3 units per domain) 9 units	36 units
MAJOR COURSES	Physics 101, 101.1, 102, 102.1, 103, 103.1, 104, 104.1, 121, 122, 123, 131, 161, 162, 165, 171, 172, 173, 175, 181, 182, 183, 195*, 196, 199, 200 *must be taken twice with different topics	80 units
FOUNDATION COURSES	Math 53, 54, Geol 11, Chem 18 & 18.1	18 units
FREE ELECTIVES		6 units
LEGISLATED COURSE	P.I. 100	3 units
		TOTAL NUMBER OF UNITS: 143 UNITS

BACHELOR OF SCIENCE IN PHYSICS
PROGRAM CHECKLIST

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Physics 101	4	Physics 102	4
Physics 101.1	1	Physics 102.1	1
Math 53	5	Physics 121	4
GE 1 – NSM I (SCIENCE 10)	3	Math 54	5
GE 2 – SSP I (ETHICS 1)	3	GE 4 – AH I (ARTS 1)	3
GE 3 – SSP II (KAS 1/HIST I)	3	PE 2	(2)
PE 1	(2)		
Total	19	Total	17
SECOND YEAR			
Physics 103	4	Physics 104	4
Physics 103.1	1	Physics 104.1	1
Physics 122	4	Physics 123	4
Physics 131	4	Physics 161	3
GE 5 – NSM II (SCIENCE 11)	3	Physics 171	3
GE 6 - AH II (COMM 10)	3	GE 7 - AH III (WIKA 1)	3
PE 2	(2)	PE 2	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	19	Total	18
THIRD YEAR			
Physics 173	4	Physics 165	3
Physics 172	3	Physics 175	3
Physics 181	3	Physics 182	3
Physics 162	3	Physics 199	3
Free Elective 1	3	Chemistry 18	4
GE 8 – AH IV (Elective)	3	Chemistry 18.1	1
Total	19	Total	17
FOURTH YEAR			
Physics 183	3	Physics 195	3
Physics 195	3	Physics 200	3
Physics 196	1	GE 11 - SSP GE IV (Elective)	3
Free Elective 2	3	GE 12 - NSM GE IV (Elective)	3
GE 9 - SSP III (SAS 1)	3	PI 100	3
GE 10 - NSM GE III (STS 1)	3		
Geo 11	3		
Total	19	Total	15
			Total number of units: 143 units

MASTER OF SCIENCE IN CONSERVATION AND RESTORATION ECOLOGY (MS CaRE)

(APPROVAL: UPB UC, 16 February 2015; BOARD OF REGENTS, 29 April 2015)

PROGRAM STRUCTURE

CORE COURSES	CRE 260, 261, 265, 230, 299	15 units
OTHER REQUIRED COURSES	CRE 281, 283, 298, 300	14 units
ELECTIVE COURSES	CRE 220, 224, 262, 263, 264, 266, 297, Free elective	6 units
		TOTAL NUMBER OF UNITS: 35 UNITS

PROGRAM CHECKLIST

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
CRE 260	3	CRE 283	3
CRE 261	3	CRE 281	3
CRE 265	3	CRE 299	3
CRE 230	3	Elective	3
Total	12	Total	12
SECOND YEAR			
Elective	3	CRE 300	6
CRE 298	2		
Total	5	Total	6
			Total number of units: 35 units

MASTER OF SCIENCE IN MATHEMATICS

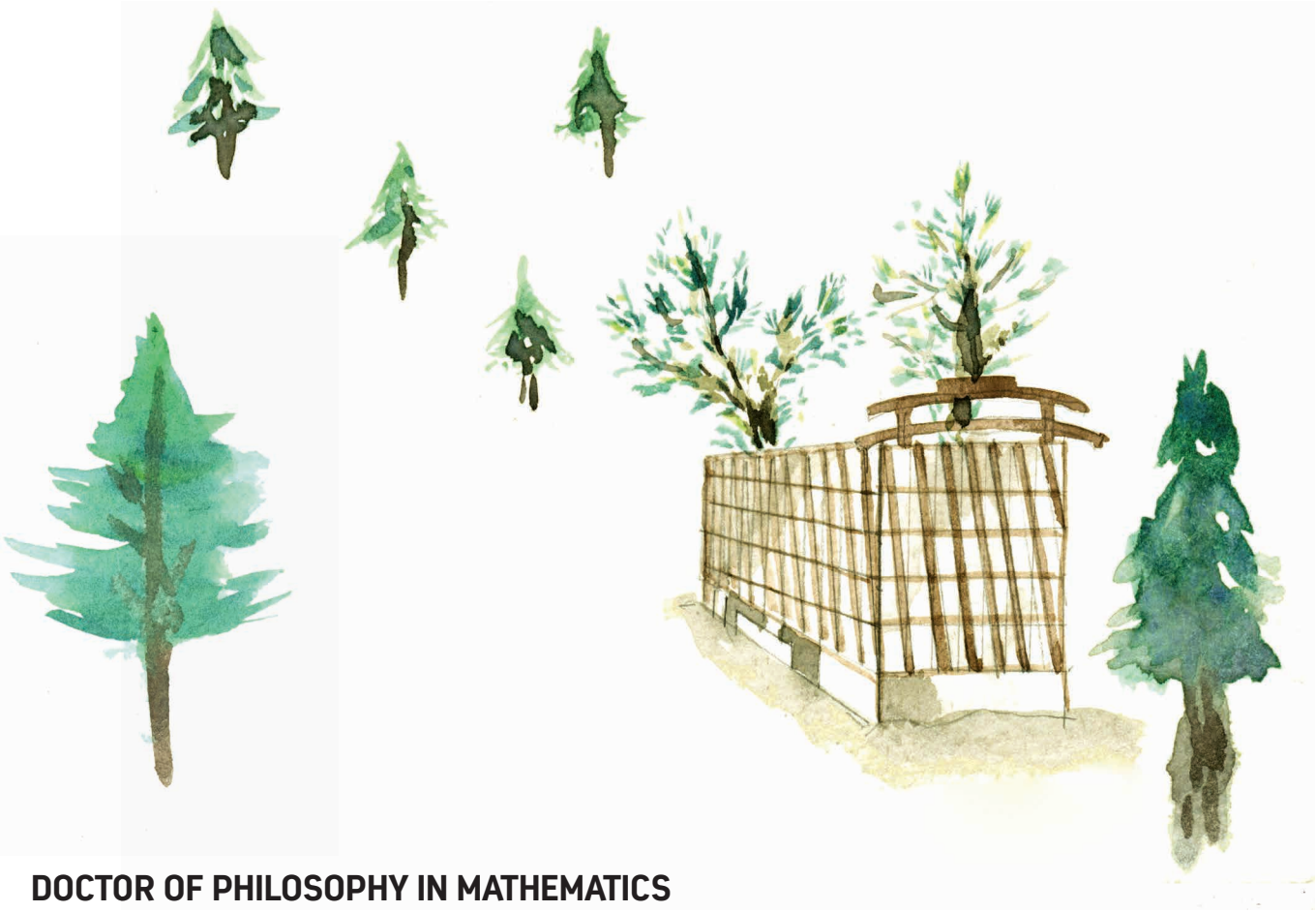
(INSTITUTION APPROVED BY THE BOARD OF REGENTS, 24 MAY 2001;
APPROVAL OF REVISIONS: UC, 20 November 2017; EVP T. J. Herbosa, by Authority of the President, 1 December 2017)

PROGRAM STRUCTURE

REQUIRED COURSES	Math 221, 222, 232, 234	12 units
ELECTIVES	Thesis Program (TP) Non-Thesis Program (NTP) Math 213, 214, 215, 216, 217, 218, 219, 223, 224, 225, 235, 236, 237, 238, 239, 240, 241, 245, 250, 251, 255, 256, 260, 280, 296 298	12 units 21 units
THESIS	Math 300 (TP only)	6 units
	COMPREHENSIVE EXAM and ORAL PAPER PRESENTATION (NTP only)	
TOTAL NUMBER OF UNITS: Thesis Program 30 UNITS Non-thesis Program 33 UNITS		

PROGRAM CHECKLIST

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Math 232	3	Math 234	3
Math 222	3	Elective	3
Math 221	3	Elective	3
Total	9	Total	9
SECOND YEAR			
NON-THESIS PLAN			
Elective	3	Elective	3
Elective	3	Elective	3
Elective	3		
Total	9	Total	6
THESIS PLAN			
Elective	3	Math 300	6
Elective	3		
Total	6	Total	6



DOCTOR OF PHILOSOPHY IN MATHEMATICS

(APPROVAL: UPB UC, 13 February 2017; BOARD OF REGENTS, 5 April 2017)

The **regular Ph.D. Mathematic**s program is a three-year program designed for students who have earned their Master of Science in Mathematics degree or in any allied field.

The **straight Ph.D. Mathematics** program is a four-year program designed for students who have earned their Bachelor of Science in Mathematics degree (or in any allied field) and who have exhibited a high degree of intellectual capacity and aptitude for advanced study and research in mathematics.

Students in the straight Ph.D. program of the College of Science may earn a Master's degree in their program provided they have completed the following requirements: (1) completed at least 33 units of graduate courses in their Program of Study; (2) passed the Doctoral Qualifying Examination; (3) passed the Doctoral Candidacy Examination; (4) have a GWA of 1.75; (5) fulfilled all other College and University requirements for a Master's degree.

ADMISSION

1. For those applying for admission to the regular PhD program/straight PhD program, a master's degree in Mathematics (respectively, a bachelor's degree in Mathematics) is needed, or any graduate degree in an allied field, e.g. Engineering, Physics, Statistics and Computer Science (respectively, a bachelor's degree in the said allied fields) but subject to evaluation.
2. For those applying for admission to the straight PhD program, the applicant must satisfy any one of the following qualifications:
    a. graduated with honors; or
    b. belongs to the top 10% of the BS Mathematics graduating class; or
    c. earned a weighted average of at least 2.0 (or equivalent) in all higher math courses; or
    d. published in a WOS/Scopus-indexed journal. The applicant must be the sole/lead author of the publication.

    The applicant must obtain a favorable endorsement of the Mathematics graduate faculty after undergoing an interview.
5. Documents to be submitted prior to the admission:
    a. Application form for admission to a graduate program (UPB-GP Form No. 1, available at http://cs.upb.edu.ph/index.php/cs-menu-degr-progs/cs-msmath)
    b. Official transcript of undergraduate and graduate studies.
    c. Three recommendation letters, at least two of which should be from former professors.
    d. A brief statement of purpose for applying in the PhD Mathematics program.
    e. Satisfaction of additional university requirements such as health clearance and other special admission requirements.

RETENTION

1. A Ph.D. Math student must have an average of 2.00 or better in all graduate courses for one academic year (including Midyear term) in the program. A student who cannot meet this shall be disqualified from the program.
2. If, after three/four academic years, the student fails to pass the required courses, the student will be automatically disqualified from the regular/straight Ph.D. Math program.
3. A student will be given 2 chances to pass the Qualifying Examination. Failure on the 2nd try will disqualify the student from the program. The second take shall be made no later than 1 academic year.
4. The university rules pertaining to Maximum Residency Rule for graduate programs shall be applied.

TRANSFER OF CREDITS FROM ANOTHER UNIVERSITY

Subject to the recommendation of the Graduate Committee of the department, graduate courses taken by the student in another university may be credited for his/her doctoral program provided that:
1. The courses should have been taken within five years prior to admission;
2. The Unit or Graduate Office validates the courses through appropriate means; the total number of credits transferred shall not exceed nine (9) graduate units.

GRADUATION

To qualify for graduation, a student must satisfy the following requirements:
1. Complete a minimum of 40/58 units of formal graduate courses for the regular and straight Ph.D. program, respectively. These courses should be taken while the student is enrolled in the Ph.D. program of UP Baguio.
2. Pass the Qualifying and Candidacy Examinations.
3. Must have a general weighted average of 1.75 or better.
4. Successfully defend a dissertation.
5. Submit at least three (3) bound and certified copies of the approved dissertation and an electronic copy of the dissertation.
6. Must have a publication (or at least a proof of acceptance of publication) in a refereed journal.

PROGRAM STRUCTURE

Regular Ph.D. Mathematics	
Required courses Math 223, 237, 240	9 units
Electives Math 213, 214, 215, 216, 217, 218, 219, 224, 225, 235, 236, 238, 239, 241, 245, 250, 251, 255, 256, 260, 280, 296, 297, 298	18 units
Graduate Seminar Math 299	1 unit
Qualifying Examination*	
Candidacy Examination**	
Dissertation*** Math 400	12 units
Total	40 units

Straight Ph.D. Mathematics	
Required courses Math 221, 222, 223, 323, 234, 237, 240	21 units
Electives Math 213, 214, 215, 216, 217, 218, 219, 224, 225, 235, 236, 238, 239, 241, 245, 250, 251, 255, 256, 260, 280, 296, 297, 298	24 units
Graduate Seminar Math 299	1 unit
Qualifying Examination*	
Candidacy Examination**	
Dissertation*** Math 400	12 units
Total	58 units

*Qualifying Examination

A student is eligible to take the qualifying examination upon completion of the required courses and at least six units of electives, and with an average of 1.75 or better. The qualifying exam will be in three areas: (1) Algebra (Topics will come from Abstract Algebra I, II and Linear Algebra); (2) Analysis (Topics will come from Real Analysis, Complex Analysis and Functional Analysis), and (3) an area that the student may choose in consultation with the supervisor and/or the Graduate Committee. The third area may be chosen from any other fields covered by the electives taken by the student.

**Candidacy Examination

A Candidacy Examination will be taken by the student after completing the required courses, the required number of units for elective courses, and passing the Qualifying Examination. The Candidacy Examination will consist of two parts: (1) **presentation of any scholarly and novel research output** preferably related to the thesis topic of the student and (2) **thesis proposal**.

***Dissertation

The dissertation is a written research output that the student will write under the supervision of his/her adviser. The contents of the dissertation will be the outcome of the original and independent work done by the student, not previously submitted in any form for a degree in any other institution or university.

The oral defense of the dissertation may take place only when the student has passed the Qualifying and Candidacy Examinations.

The Dissertation Publication Requirement

Before the student can qualify for graduation from the Ph.D. [Mathematics] Program, he/she must first submit to the Graduate [Program] Committee and the Graduate [Program] Office an acceptance letter from or publication in a reputable, refereed scientific journal as defined by the unit. This publication must be based partly or entirely on his/her approved dissertation and endorsed by his/her Dissertation Committee.

PROGRAM CHECKLIST
Regular Ph.D. Math Program

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Math 223	3	Math ____ (Elective 1)	3
Math 237	3	Math ____ (Elective 2)	3
Math 240	3	Math ____ (Elective 3)	3
Total	9	Total	9
SECOND YEAR			
Math ____ (Elective 4)	3	Math 299	1
Math ____ (Elective 5)	3		
Math ____ (Elective 6)	3		
Total	9	Total	1
THIRD YEAR			
Math 400	12	In Residency	
Total number of units: 40 units			

Note:
- *The student is required to take the qualifying exam before the candidacy exam.*
- *The student must pass the candidacy exam before enrolling Math 400.*
- *The student's grade in Math 400 is either Pass or Fail.*

PROGRAM CHECKLIST
Straight Ph.D. Math Program

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
Math 221	3	Math 223	3
Math 234	3	Math 232	3
Math 222	3	Math 240	3
Total	9	Total	9
SECOND YEAR			
Math 237	3	Math ____ (Elective 3)	3
Math 250/251 (Elective 1)	3	Math ____ (Elective 4)	3
Math ____ (Elective 2)	3	Math ____ (Elective 5)	3
Total	9	Total	9
THIRD YEAR			
Math ____ (Elective 6)	3	Math 299	1
Math ____ (Elective 7)	3		
Math ____ (Elective 8)	3		
Total	9	Total	1
FOURTH YEAR			
Math 400	12	In Residency	
Total	12		
Total number of units: 58 units			

Note:
- *The student is required to take the qualifying exam before the candidacy exam.*
- *The student must pass the candidacy exam before enrolling Math 400.*
- *The student's grade in Math 400 is either Pass or Fail.*

NEW GENERAL EDUCATION PROGRAM (EFFECTIVE SY 2018-2019)

CORE COURSES

SCIENCE 10 Probing the Physical World. Understanding the origin of the universe, synthesis of the elements, formation of the earth and the various critical issues affecting our world view and our planet through the methods and interconnected concepts of the physical sciences. **3u.**

SCIENCE 11 Living Systems: Concepts and Dynamics. Principles, interactions, and contemporary issues concerning living systems. **3u.**

STS 1 Science, Technology and Society. Analyses of the past, present and future of science and technology in society (including their nature, scope, role and function) and the social, cultural, political, economic and environmental factors affecting the development of science and technology, with emphasis on the Philippine setting. **3u.**

GE ELECTIVES

MATH 10 Mathematics, Culture and Society. Appreciation of the beauty and power of mathematics through the examination of its nature, development, utility, and relationship with culture and society. **3u.**

GENERAL EDUCATION (GEP) AND REVITALIZED GENERAL EDUCATION (RGEP) COURSES

Biology

10 The Gene in Life. The fundamental role of the gene in life. **3u.**

Chemistry

1 Chemistry: A Practical Approach. Basic chemistry concepts and their applications. **3u.**

Geology

2 The Changing Philippine Landforms. Description and analysis of major physical features and attributes of the Philippine archipelago. **3u.**

Mathematics

1 Mathematics in Life: Fundamental concepts in mathematics & applications. 3u.

Natural Science

I Foundations of Natural Science I. Fundamental concepts, principles & theories of physics & chemistry. **3u.**

II Foundations of Natural Science II. Fundamental concepts, principles & theories of earth & life sciences. Prereq: Nat Sci I. **3u.**

3 Earth and Life Through Time. Study of the physical, atmospheric, hydrologic and biologic conditions of the earth from pre-history to the modern times. **3u.**

Physics

11 The Physics of Everyday Activities. Study of basic physical principles through everyday experience of simple to sophisticated technologies in the areas of communication, transportation, information technology and medical technology. **3u.**

Science, Technology & Society

STS The analysis from historical & futuristic perspectives of the nature & role of science & technology in society & of the socio-cultural & politico-economic factors affecting their development with emphasis on Philippine setting. Prereq: SS. **3u.**

UNDERGRADUATE COURSES

Biology

100 Integrative Biology. Principles and methods in general biology; fundamental concepts in cell structure and function, histology, anatomy, physiology, reproductive biology, ontogeny and phylogeny of plants and animals. 9h (3 lec, 6 lab) **5u.**

101 Statistical Methods in Biology. 3u.

102 Phycology. Taxonomy, morphology & phylogeny of algae. 5h (2 lec, 3 lab). **3u.**

103 Mycology. Taxonomy, morphology & ecology of the fungi & lichens. 5h (2 lec, 3 lab). **3u.**

110 Systematics. The three domains of life in an evolutionary framework; biological species concept and variation in populations, taxonomic and phylogenetic approaches to systematic studies and its relevance to conservation biology. **3u.**

113 Fundamentals of Virology. Viral taxonomy, structure, replication, and pathogenesis; virus-host interactions. Prereq: Bio 120, Bio 150. **3u**

120 Microbiology. Taxonomy, morphology, ecology & economic value of micro-organisms; microbiological techniques. Prereq: Chem 26, Chem 26.1. 9 h (3 lec, 6 lab). **5u.**

121 Industrial Microbiology. Techniques in isolation, purification, cultivation, screening, identification, and preservation of economically-important microbes with emphasis on trends and issues in the Philippines. Prereq: Bio 120. **3u.**

123 Fundamentals of Microbial Physiology. Composition and structure of microbial cells; regulation of biochemical activities associated with cellular metabolism. Prereq: Bio 120. 5h (2 lec, 3 lab) **3u.**

125 Medical Microbiology. Survey of various microorganisms associated with human health and description of host-pathogen interactions. Prereq: Bio 120. 5h (2 lec, 3 lab). **3u.**

140 Genetics. Principles of heredity & variation. Prereq: Biol 101, Chem 40. 6h (3 lec, 3 lab). **4u.**

141 Fundamentals of Microbial Genetics. Structure, expression, and applications of exchange of genetic materials in bacteria, fungi, and bacteriophages. Prereq: Bio 120. 5h(2 lec, 3 lab). **3u.**

150 Introduction to Molecular & Cell Biology. Principles of cell biology. Prereq: Chem 40, 40.1. 6h (3 lec, 3 lab). **4u.**

160 Ecology. Principles of plant & animal associations. Prereq: Zoo 111, Bot 109, Biol 101, Chem 26, Chem 26.1, Geol 11. 6h (3 lec, 3 lab). **4u.**

161 Field Biology. Plants & animals in their natural environment; their preparation for laboratory study. Prereq: Biol 160. **5u.**

162 Terrestrial Communities. Physical, chemical & biological aspects of terrestrial habitats. Prereq: Biol 160. 6h (3 lec, 3 lab). **4u.**

163 Fundamentals of Microbial Ecology. Ecology and evolution of microorganisms, microbial interrelationships and biogeochemical cycles. Prereq: Bio 120. 5h (2 lec, 3 lab). **3u.**

164 Limnology. Physical, chemical & biological aspects of freshwater habitats. Prereq: Biol 160. 6h (3 lec, 3 lab). **4u.**

165 Biogeography. Ecological and historical aspects of spatial distribution of plants and animals. Prereq: JS or COI. **3u.**

166 Marine Ecology. Physico-chemical and biological patterns in shallow water and deep sea marine communities; interactions at various levels of organization in the marine environment; and impacts of human activities on marine habitats. Prereq: Bio 160. 6h (3 lec, 3 lab). **4u.**

167 Selected Topics in Ecology. Selected topics dealing with plant & animal associations. Prereq: Zoo 111, 111.1, Bot 109. **3u.**

195 Biological Evolution. Theories, principles & mechanisms of evolution. Prereq: JS. **3u.**

197 Selected Topics in Biology. Prereq: COI. **3u.**

198 Seminar. Prereq: JS/COI. 1u. May be repeated for an additional unit.

200.1 Undergraduate Thesis Proposal Writing. Prereq: JS. **2u.**

200.2 Undergraduate Thesis. Prereq: Bio 200.1. **2u.**

Botany

10 General Botany. The structure, function, classification, heredity & evolution of plants. 9h (3 lec, 6 lab). **5u.**

105 Bryology. The biology of liverworts, mosses and hornworts. 5h (2 lec, 3 lab). **3u.**

106 Pteridology. Morpho-anatomy, reproduction and development, major evolutionary patterns, distribution and conservation, and techniques in the collection and identification of ferns and lycophytes. 5h (2 lec, 3 lab). **3u.**

109 Systematics of Spermatophytes. The systematics of seed-bearing plants (angiosperms and gymnosperms). 8h (2 lec, 6 lab). **4u.**

119 Plant Anatomy. The anatomy of the vascular plants designed for detailed study of their internal structure & development. 9h (3 lec, 6 lab). **5u.**

120 Plant Physiology. The fundamental aspects of plant nutrition, absorption & translocation of materials, growth, movements & reproduction. Prereq: Physics 100, Math 100, Chem 40, Chem 40.1, Bot 119. 6h (3 lec, 3 lab). **4u.**

Chemistry

11 General & Inorganic Chemistry. The essentials of general inorganic college chemistry. The fundamental principles of the subject & the practical application to the industries &everyday life. Prereq: Math 11/equiv. 9h (3 lec, 6 lab). **5u.**

16 General Chemistry I. Fundamentals of chemistry. Prereq: Math 11/equiv. 9h (3 lec, 6 lab). **5u.**

17 General Chemistry II. Continuation of Chem 16. Prereq: Chem 16, Math 14/equiv. 9h (3 lec, 6 lab). **5u.**

18 Elementary Physical Chemistry. Overview of general chemistry principles and introduction to basic physical chemistry concepts and their applications. Coreq: Chem 18.1. **4u.**

18.1 Elementary Physical Chemistry Laboratory. Basic laboratory techniques and experiments in physical chemistry. Coreq: Chem 18. **1u.**

26 Analytical Chemistry. Principles & techniques of analysis with emphasis on volumetric methods & stoichiometry; survey of common instrumental methods. To be taken simultaneously with Chem 26.1. Prereq: Chem 11, Math 14/equiv. **3u.**

26.1 Analytical Chemistry Laboratory. Prereq/Coreq: Chem 26. 6h (lab) **2u.**

31 Elementary Organic Chemistry. Introduction to modern theories in organic chemistry. Correlation of structure with properties of organic compounds. Basic laboratory techniques in elementary organic chemistry. To be taken simultaneously with Chem 31.1. Prereq: Chem 11/equiv. **3u.**

31.1 Elementary Organic Chemistry Laboratory. Prereq/Coreq: Chem 31. 6h (lab). **2u.**

40 Elementary Biochemistry. An elementary treatment of structure-function relationship of biomolecules & biochemical mechanisms. To be taken simultaneously with Chem 40.1. Prereq: [Chem 26, 26.1, 31 and 31.1] or [Chem 17, 31 and 31.1] or their equivalents. **3u.**

40.1 Elementary Biochemistry Laboratory. Prereq/Coreq: Chem 40. 6h (lab). **2u.**

Computer Science

11 Introduction to Computer Sciences. Introduction to the major areas of computer science; software systems & methodology; computer theory; computer organization & architecture; programming in a high level language. 5h (2 lec, 3 lab). **3u.**

12 Advanced Programming Techniques. Advanced programming techniques, recursion, systematic program development and top-down design. Introduction to object-oriented programming, inheritance, polymorphism, classes and exception-handling. Prereq: CMSC 11 or Math 182. 5h (2 lec, 3 lab). **3u.**

55 Discrete Mathematical Structures in Computer Science. Principles of logic & set theory, combinatorics, discrete probability, recurrence relations, graph theory, algebraic systems & their applications in computer science. **5u.**

110 Internet Technologies. Developer-oriented introduction to contemporary internet technologies; web authoring; web applications development; and internet security. Prereq: CMSC 12. 5h (2 lec, 3 lab). **3u.**

116 Mathematical Methods for the Computational Sciences. Matrices and determinants; eigenvalues and eigenvectors;

systems of equations; differential equations; Laplace transforms; vector spaces; and applications. Prereq: Math 55. **3u.**

117 Numerical Methods. Computational problem-solving; numerical differentiation and integration; numerical solutions of non-linear equations; numerical solutions of systems of equations; numerical solutions of ordinary and partial differential equations; mathematical software; and applications. Prereq: CMSC 116. **3u.**

123 Data Structures. Abstract data types & their implementations; lists, stacks, queues, trees, mapping, sets & graphs; searching & sorting techniques, dynamic storage & memory management. Prereq: CMSC 12 and CMSC 55, or Math 182 and Math 29. 5h (2 lec, 3 lab). **3u.**

124 Design & Implementation of Programming Languages. Study of the fundamental concepts in the design & implementation of current high-level programming languages; syntax & translation, language definition structures, elementary & structured data types, abstraction mechanisms, sequence & data control, runtime considerations. Prereq: CMSC 123. 5h (2 lec, 3 lab). **3u.**

125 Operating Systems. Processor management, memory management, file & disk management, resource management, concurrent processes, networks & distributed systems. Prereq: CMSC 123 and CMSC 131. 5h (2 lec, 3 lab). **3u.**

127 File Processing & Database Systems. Data models: relational network & hierarchical models. Database management system, data definition & manipulation language. Data security, integrity, synchronization, protection & recovery. Principal database systems & query languages. Prereq: CMSC 123. 5h (2 lec, 3 lab). **3u.**

128 Introduction to Software Engineering. Software life cycle from the requirement specification & design phases through the construction of actual software. Topics include planning a software project, cost estimation, software design, implementation, validation & software maintenance. Prereq: CMSC 123. 5h (2 lec, 3 lab). **3u.**

130 Logic Design & Digital Computer Circuits. Data representation & computer arithmetic; logic functions & equations; description, analysis & design of combinational & sequential circuits, functional properties of digital integrated circuits. Prereq: CMSC 11 or Math 182. 5h (2 lec, 3 lab). **3u.**

131 Computer Organization and Assembly Language Programming. Computer organization and interfaces between hardware and software. Microcomputer systems: basic computer organization, memory addressing, CPU-memory-I/O relationships, interfacing, interrupt mechanisms, bus structures, and microprogramming. Assembly language programming: machine vs. assembly language, data structure representations, program control implementations, subroutines, parameter passing, recursion, direct video graphics, serial port communications. Prereq: CMSC 12. 5h (2 lec, 3 lab). **3u.**

135 Computer Networks. Introduction to computer networks; reference models; network layers; network principles and protocols; distributed computing; overview of network software; network security; distributed resources. Prereq: CMSC 125. 5h (2 lec, 3 lab). **3u.**

141 Automata & Language Theory. Finite automata & regular languages, pushdown automata & context free languages; Turing machines & recursively enumerable sets; linear-bounded automata & context-free languages; computability & the halting problem; undecidable problems, recursive functions; & computational complexity. Prereq: CMSC 55 or Math 29. **3u.**

142 Design & Analysis of Algorithms. Algorithm design techniques: use of data structures, divide & conquer, dynamic programming, greedy techniques, local & global search. Complexity analysis of algorithms; asymptotic analysis, worst-case & average-case, recurrences, lower bounds, NP-completeness. Prereq: CMSC 123. **3u.**

161 Interactive Computer Graphics. Graphics systems software & hardware, 2D drawing algorithms, geometrical transformations, surface modeling, 3D viewing, visible surface determination algorithms, illumination & reflection models, shading models for polygons, color theory, ray tracing. Students write their 3D-rendering engine. Prereq: CMSC 116; or Math 113, Math 122 and Math 182; or Physics 121, Physics 122 and Physics 131. 5h (2 lec, 3 lab). **3u.**

162 Artificial Intelligence. Introduction to basic ideas and techniques underlying design of intelligent computer systems, specific emphasis on the heuristic search methods, machine learning and logic programming. Prereq: CMSC 123. 5 h (2lec, 3 lab). **3u.**

190 Special Problem. Individual study of a computer-related problem. Prereq: COI. **3u. Must be taken twice.**

191 Special Topics. Lecture course in topics of current interest. Prereq: COI. **3u. May be taken twice.**

198 Practicum. Prereq: COI. **3u.**

199 Undergraduate Seminar. Prereq: COI. **1u. May be taken twice.**

Geology

11 Principles of Geology. Rocks & rock masses – their characters & how these characters are acquired, modified & transformed through geologic processes. Occasional field trips. **3u.**

Mathematics

11 College Algebra. Linear equations; algebraic and graphical solutions of the quadratic equations; exponents and radicals; complex numbers; binomial expansion; determinants; progressions; theory of equations. **3u.**

14 Plane Trigonometry. Logarithms; graphs of the trigonometric functions; the general triangle; solutions of trigonometric; inverse trigonometric; exponential and logarithmic functions; applications of the circular functions to angles. **3u.**

17 Algebra and Trigonometry. Sets and numbers; the algebra of numbers as a logical system; inequalities; absolute values and coordinate systems; functions and graphs; circular, linear, quadratic and polynomial functions;

exponential and logarithmic functions; applications of the circular functions to angles. **5u.**

29 Basic Concepts of Mathematics. Sets; principles of logic; methods of proof; relations; functions; integers; binary operations; complex numbers; matrices and matrix operations; introduction to mathematical systems. **3u.**

53 Elementary Analysis I. Functions and their graphs; concepts of limit and continuity; theory of differentiation; derivatives of algebraic and trigonometric functions; theory of integrals; applications of the definite integral. **5u.**

54 Elementary Analysis II. Integration methods; determinants; plane and solid analytics; hyperbolic functions; polar coordinates; vectors; parametric equations. Prereq: Math 53. **5u.**

55 Elementary Analysis III. Partial differentiation; multiple integrals, infinite series, differential equations. Prereq: Math 54. **3u.**

100 Introduction to Calculus. Limits; derivatives; integrals; applications. Prereq: Math 17/COI. **4u.**

101 Elementary Statistics. Presentation of data; frequency distribution; central tendencies; index numbers; dispersion; normal curve; Poisson curve; correlations; sampling distribution; elements of statistical inference. 5h (2 lec, 3 computer lab). **3u.**

113 Differential Equations. Basic concepts. Solution of first-order equations; existence & uniqueness. Methods of approximation. Linear differential equations. System of linear differential equations. The Laplace transform. Numerical methods. Boundary value problems. Partial differential equations of mathematical physics. Applications. Prereq: Math 55. 5h (2 lec, 3 lab). **3u.**

120 Algebraic Structures I. Groups, subgroups, cyclic groups, permutation groups, abelian groups, normal subgroups, and quotient groups; homomorphism and isomorphism theorems; rings; fields; ideals; field of quotients. Prereq: Math 29 or CMSC 55. **3u.**

121 Algebraic Structures II. Rings of polynomials; fundamental theorem of field theory; factor rings and ideals; extension fields; finite fields; geometric constructions; fundamental theorem of Galois theory; illustrations of Galois theory. Prereq: Math 120. **3u.**

122 Linear Algebra and Matrix Theory. Matrices; systems of linear equations; vector spaces; linear independence; linear transformations; determinants; eigenvalues and eigenvectors; diagonalization; inner product spaces. Prereq: Math 29. **3u.**

123 Elementary Theory of Numbers. Properties of integers; divisibility, unique factorization theorem; solutions of congruences; residue systems; primitive roots & the quadratic reciprocity law; solutions of Diophantine equations. Prereq: Math 29 or CMSC 55. 3**u.**

124 Applied Algebra and Combinatorics. Any one of the following: Coding theory; Cryptography; Graph theory; Combinatorics; or other topics in applied algebra and combinatorics. Prereq: Math 29 or CMSC 55, and Math 55. **3u. May be taken twice.**

130 Mathematical Analysis. The real number system R and the n-space R^n, sequences; limits and continuity; differentiation and integration and their applications; series. Prereq: Math 55. **3u.**

132 Real Analysis. Real number system; Lebesgue measure; measurable sets; measurable functions; integrals of simple and nonnegative measurable functions; Lebesgue integral; convergence theorems; differentiation and integration. Prereq: Math 55. **3u.**

133 Introduction to Functional Analysis. Normed vector spaces and inner product spaces; bounded linear operators; functionals and the dual space; Banach spaces and their duals; Hilbert spaces; orthogonal decompositions; orthonormal bases; Fourier series; Banach algebras. Prereq: Math 130. **3u.**

134 Complex Analysis. Topology of the complex plane; continuous and differentiable complex functions; power series functions; integration; Cauchy's theorem; local analysis. Prereq: Math 55. **3u.**

136 Introduction to Numerical Analysis. Error analysis; solutions of linear and nonlinear equations; numerical integration and differentiation; numerical solutions of ordinary differential equations. Prereq: Math 113, 122. 5h (2 lec, 3 lab). **3u.**

137 Applied Analysis. Any one of the following: Modeling; Mathematical Economics; Financial Mathematics; Partial Differential Equations; Mathematical Biology; or other topics in applied analysis. Prereq: Math 113. **3u. May be taken twice.**

140 Topological Structures. The topology of the real line; the axioms for a topological space and the elementary properties of a topological space; continuity, connectedness and compactness; construction of topological spaces. Prereq: JS. **3u.**

150 Modern Geometry. Foundations of geometry; geometric transformations; projective geometry; non-Euclidean geometry. Prereq: Math 55. **3u.**

160 Probability Theory. Sets & events; equally likely events & combinatorics; independence; Markov chains; countable spaces; the probability measure & the extension problem; random variables & generating functions; applications. Prereq: COI. **3u.**

163 Mathematical Statistics. Probability; random variables; distributions and sampling distributions; point and interval estimates; test of hypothesis; regression analysis. Prereq: Math 55. **3u.**

165 Applied Statistics. Any one of the following: Time Series Analysis; Applied Linear Regression Analysis; Applied Multivariant Analysis; Statistical Inference; or other topics in applied statistics. Prereq: Math 160 or 163. **3u. May be taken twice.**

170 Foundations of Mathematics. History of mathematical thought; formal systems; consistency, completeness and independence; mathematical structures; schools of mathematical thought. Prereq: Math 29 or CMSC 55. **3u.**

181 Mathematical Methods of Operations Research. Introduction to mathematical programming; optimization in networks; dynamic programming; game theory; stochastic models; simulation. Prereq: Math 122 or CMSC 116. 5h (2 lec, 3 lab). **3u.**

182 Introduction to Computer Programming. Introduction to computer and structured programming language; solution of numerical problems; graphics. Prereq: Math 54. 5h (2 lec, 3 lab). **3u .**

190 Issues in Mathematics Education. The historical, cultural, and political context of mathematics education, including issues related to models of learning, curriculum and assessment; gender, class, and ethnicity; and technology. Prereq: COI. **3u**

197 Selected Topics in Mathematics. Prereq: COI. **3u. May be taken twice.**

198 Seminar. Prereq: COI. **2u.**

199 Research in Mathematics. The nature of research in mathematics, technical writing, ethics in research, preparation of thesis proposal, review of related literature for thesis. Prere: COI. **3u.**

200 Undergraduate Thesis. Prereq: Math 199. **3u.**

Physics

31 General Physics I. Introduction to mechanics and thermodynamics. Prereq: Math 17/equiv; Coreq: Phys 31.1. **3u.**

31.1 General Physics I Laboratory. Prereq: Math 17/equiv; Coreq: Phys 31. 3h (lab). **1u.**

32 General Physics II. Introduction to waves, optics, electromagnetics and modern physics. Prereq: Phys 31, 31.1; Coreq: Phys 32.1. **3u.**

32.1 General Physics II Laboratory. Prereq: Phys 31, 31.1; Coreq: Phys 32. 3h (lab). **1u.**

100 Applied Biological Physics. Overview of fundamental physics concepts and principles with applications in biology and medicine. Prereq: Math 100. 7h (4 lec, 3 lab). **5u.**

101 Fundamental Physics I. Fundamentals of Newtonian Mechanics and gravitational theory. Coreq: Math 53. **4u.**

101.1 Fundamental Physics I Laboratory. Coreq: Phys 101. 3h (lab). **1u.**

102 Fundamental Physics II. Fundamentals of electromagnetism and special relativity. Prereq: Phys 101/equiv., 101.1/equiv., Math 53; Coreq: Math 54. **4u.**

102.1 Fundamental Physics II Laboratory. Coreq: Phys 102. 3h (lab). **1u.**

103 Fundamental Physics III. Fundamentals of waves, optics and thermal physics. Prereq: Phys 102/equiv., 102.1/equiv., Math 54. **4u.**

103.1 Fundamental Physics III Laboratory. Coreq: Phys 103. 3h (lab). **1u.**

104 Modern Physics I. Old quantum theory up to Bohr-Sommerfield model; Schroedinger's equation and elementary wave mechanics; one-electron atoms; multi-electron atoms; Pauli's Exclusion principle. Prereq: Phys 103; Coreq: Phys 121. **4u.**

104.1 Modern Physics I Laboratory. Coreq: Phys 104. 3h (lab). **1u.**

121 Mathematical Models in Physics I. Geometric Series, Harmonic Series, Alternating Series, Algebra of Series, Series of Functions, Taylor's Expansion, Power Series, Bernoulli Numbers, Asymptotic Series, Convergence Tests, 1st and 2nd Order Ordinary Differential Equations, Singular Points, Series Solutions; Partial Differential Equations, Separation of Variables, Heat Flow or Diffusion PDE, Inhomogeneous PDE – Green's Function. Prereq: Math 53. **4u.**

122 Mathematical Methods in Physics II. Vector Analysis; Vector Analysis in Curvilinear Coordinates; Properties of Matrices, Determinants, Orthogonal Matrices, Hermitian and Unitary Matrices, Eigenvalue Problems; Random Variables, Binomial Distribution, Poisson Distribution and Gauss's Normal Distribution; Sample statistics and populations, Method of Least Squares, Hypothesis Testing. Prereq: Phys 121/COI. **4u.**

123 Mathematical Methods in Physics III. Gamma Function, Legendre Polynomials and Spherical Harmonics, Fourier Series and Transforms; Calculus of Variations (Dependent and Independent Variables and Lagrangian Multipliers); Complex Algebra, Cauchy-Riemann Conditions, Cauchy's Integral Theorem, Cauchy's Integral Formula, Laurent Expansion, Mapping, Calculus of Residues. Prereq: Phys 121. **4u.**

131 Computational Physics. Computer Programming Methods; Finding Roots and Solving Non-linear Set of Equations; Solutions of Linear Algebraic Equations; Interpolation and Extrapolation Methods; Evaluation of Functions; Minimization and Maximization of Functions; Random Numbers; Eigensystems; Fast Fourier Transforms; Statistical Description and Modelling of Data; Differentiation and Integration of Functions; Numerical Solutions to Ordinary and Partial Differential Equations. Prereq: Phys 121/COI. 6h (3 lec, 3 lab). **4u.**

161 Theoretical Mechanics I. Principles of Newtonian mechanics; gravitation; linear oscillations; driven oscillations; variational principles; Lagrangian and Hamiltonian dynamics; central force motion. Prereq: Phys 101; Coreq: Phys 123/COI. **3u.**

162 Theoretical Mechanics II. Variational principles; Lagrangian dynamics; rigid body dynamics; small oscillations; Hamiltonian dynamics; Hamilton-Jacobi theory; continuum mechanics. Prereq: Phys 161. **3u.**

165 Statistical Physics I. Statistical methods; statistical thermodynamics and its applications; ensembles; simple applications of statistical mechanics; kinetic theory of gases; phase transitions; chemical equilibrium. Prereq: Phys 161/COI. **3u.**

171 Electromagnetic Theory I. Electrostatics; potential problems; dielectric media; steady currents; magnetostatics; magnetic materials; time-varying electromagnetic fields; Maxwell's equations; the wave equation. Prereq: Phys 102; Coreq: Phys 123. **3u.**

172 Electromagnetic Theory II. Covariant electrodynamics; plane electromagnetic waves; wave guides and resonant cavities; multipole radiation; Lienard-Wiechert potentials; magnetohydrodynamics and plasma physics. Prereq: Phys 171. **3u.**

173 Electronic Physics. Charged particle dynamics; electron emission; vacuum devices; gaseous processes and devices; electron beams; semi-conductors; transistors; electronic devices and circuits; selected experiments on

electronic physics. Prereq: Phys 102, 102.1. 6h (3 lec, 3 lab). **4u.**

175 Optical Physics. The electromagnetic theory of light; geometrical optics; coherence and interference; Fraunhofer and Fresnal diffraction; optical phenomena in solids; quantum theory of light; laser physics. Prereq: Phys 172/COI. **3u.**

181 Quantum Physics I. Foundations of quantum theory; Schroedinger's equation; square potentials and WKB approximation; harmonic oscillator; principles of wave mechanics; central forces and angular momentum; potentials in three dimensions and the hydrogen atom; general formalism; quantum dynamics. Prereq: Phys 104. **3u.**

182 Quantum Physics II. Spin, time-dependent perturbation theory, canonical quantization, WKB approximation. Prereq: Physics 181. **3u.**

183 Solid State Physics. Crystal structure, mechanical, thermal, electric, and magnetic properties of solids; band theory of solids; metals, insulators and semiconductors; rectifiers and transistors; lattice vibrations; imperfections; superconductivity and superfluidity. Prereq: Phys 165, Phys 181. **3u.**

191 Experimental Physics I. Selected standard experiments in modern physics with accompanying lectures on basic experimental techniques and data analysis as well as practical work in technical drawing and machine shop operations. Prereq: Phys 173. 10h (1 lec, 6 lab, 3 workshop). **4u.**

192 Experimental Physics II. Selected advanced experiments and projects in modern physics with accompanying lectures on advanced experimental techniques, experimental design and instrumentation. Prereq: Phys 191. 7h (1 lec, 6 lab). **3u.**

195 Special Topics in Physics and Applied Physics. Selected topics of current interest in physics and applied physics. Prereq: COI. **3u. Must be taken twice with different topics.**

196 Undergraduate Seminar. Prereq: SS. **1u.**

199 Undergraduate Research. Prereq: COI. **3u.**

200 Undergraduate Thesis. Prereq: Phys 199. **3u.**

Zoology

10 Fundamentals of Zoology. Basic aspects and principles of Zoology. 9h (3 lec, 6 lab). **5u.**

102 Comparative Anatomy of Vertebrates. Phylogenetic development of the organ systems in the various classes of vertebrates. 9h (3 lec, 6 lab). **5u.**

106 General Histology. Structure of the various animal tissues. 6h (3 lec, 3 lab). **4u.**

111 Invertebrate Zoology. General survey of the invertebrates. Prereq: Zoo 10 / equiv. 9h (3 lec, 6 lab) **5u.**

112 Vertebrate Zoology. General survey of the vertebrates. **5u.**

113 Parasitology. Origin and degree of parasitism, structural peculiarities of parasites, life-cycles and host parasite relationship. 6h (3 lec, 3 lab). **4u.**

120 Animal Physiology. Principles of functional zoology with emphasis on physiological adaptations. Prereq: Physics 100, Math 100, Chem 40, Chem 40.1, Zoo 102. 6h (3 lec, 3 lab). **4u.**

132 Vertebrate Embryology. Processes and theories of development of representative vertebrates. Prereq: Zoo 102. 9h (3 lec, 6 lab). **5u.**

GRADUATE COURSES

CRE (Conservation and Restoration Ecology)

220 Environmental Microbiology. Basic principles of Environmental Microbiology that will deal with the study of the composition and physiology of microbial communities in the environment. Lectures will include advance topics in microbial ecology and how this relates to geochemical processes in natural and managed environments. The course will also cover advanced methods used in the study of microorganisms found in soil, water, air and sediments. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

224 Biological Responses to Environmental Stress. Stress is an inevitable component of any environment which affects the optimal growth of the organisms. In this course, students will be presented with the different environmental stresses which plants and animals are frequently exposed to. Their responses to these stresses will also be discussed. The interrelationships between the stresses and the related responses will be focused on as the organism, and the species to which it belongs, survives and evolves. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

230 GIS and Mapping for Ecology. Students will be introduced to the basic concepts of geographic information systems (GIS), as well as to operational skills on data entry, data manipulation and analysis, and the production of interpretable output. The course will also allow students to understand the capabilities, uses and limitations of GIS; apply appropriate GIS methods to solve a typical application problem, and be able to evaluate results of data processing. Further, students will be made aware of organizational issues in GIS development and implementation. The course will consist of two parts: a theoretical aspect that will focus on the concepts and a practical part that will develop skills in using tools (mostly software). Prereq: COI. **3u.** 5h (2 lec, 3 lab)

260 Theories, Principles and Applications of Conservation and Restoration Ecology. This course will focus on ecological theory and how to apply theory to conservation and restoration practice; philosophical debates concerning restoration practice; societal influences on restoration decision-making; and restoration planning and implementation strategies. It is designed to give the student a more hands-on understanding of these general principles, as well as the importance of site-specific criteria. The course will also introduce the students to human and social dimensions of restoration. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

261 Disturbance of Ecology. This course will focus on disturbance as an ecological process in diverse

ecosystems. It will present the nature of natural and anthropogenic disturbances as drivers of major ecological processes such as population dynamics, patch dynamics, and succession. It will also cover disturbance-stability issues in the sustainability, conservation and restoration of ecosystems. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

262 Conservation and Restoration Ecology in Marine Ecosystems. This course will integrate various biological and ecological principles in the conservation of marine biodiversity and the restoration of marine habitats. This will also cover the advances and drawbacks of various approaches to conservation and restoration issues in the marine environment. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

263 Conservation and Restoration Ecology in Terrestrial Ecosystems. This course will integrate various biological and ecological principles in the conservation of terrestrial biodiversity and the restoration of land habitats. This will also cover the advances and drawbacks of various approaches to conservation and restoration issues in the terrestrial environment. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

264 Conservation and Restoration Ecology in Freshwater Habitats. This course will integrate various biological and ecological principles in the conservation of freshwater biodiversity and the restoration of their habitats. This will also cover the advances and drawbacks of various approaches to conservation and restoration issues in the freshwater environment. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

265 Advanced Biogeography. The course will examine principles, concepts and recent finding in biogeography as they are relevant to designing appropriate methodologies and programs for conservation of organisms and restoration of ecosystems. It will focus on Philippine biogeography and look at local conservation programs in the country as case studies. The course will also train students to analyse situations and develop research designs by incorporating the concepts that are learned in class. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

266 Landscape Ecology. This course will be more focused on spatial heterogeneity at broader spatial extents than those traditionally studied in ecology, and the role of humans in creating and affecting landscape patterns and process. Students will be introduced to the fundamental principles, theories, and application of landscape ecology through classroom lectures and modeling using computer softwares. The core principles and theories will be applied in ecosystem conservation and restoration plans. Prereq: COI. **3u.** 5h (2 lec, 3 lab)

281 Indigenous Management of Resources. The course will cover indigenous knowledge system as an emerging science and indigenous practices in natural resource management in modern world. Prereq: COI. **3 u.** 5h (2 lec, 3 fieldwork)

283 Ethical, Legal, and Social Issues on the Environment. Ethical, Legal and Social Issues on the Environment is an interdisciplinary course on environmental ethics, and research ethics pertinent to conservation and restoration biology, the various schools of thought on environmental ethics, Philippine environmental laws and the right to the environment, and the emerging social issues on the environment. Prereq: COI. **3u.**

297 Special Topics in Conservation and Restoration Ecology. Prereq: COI. **3u. May be taken twice provided the topics are not identical.**

298 Seminar. The students will be given the opportunity to explore topics of their choice and to research on this in detail. They will prepare their output into a seminar presentation to be delivered to an audience consisting of faculty and students. Their topic may be any aspect of conservation and restoration ecology, which may be related to their thesis. Prereq: COI. **2u.**

299 Design and Analysis of Laboratory and Field Experiments. The success of any conservation and restoration effort requires an appropriate experimental design and some measurable criteria. This course will train students to use advanced methods in the design and analysis of field experiments. It will initially build on and strengthen basic statistical techniques and will cover other statistical tools that are useful in field experimentation. The course will be heavily dependent on statistical freeware/software in the analysis of data. Prereq: COI. **3u.**

300 Master's Thesis. 6u.

Mathematics

213 Theory of Differential Equations. Existence and Uniqueness, linear systems of differential equations, non-linear systems; stability of theorems, Sturm-Liouville Theory, Applications. Prereq: COI. **3u.**

214 Dynamical Systems. Introduction to dynamical systems and applications; symmetric matrices, matrix norm, eigenvalues, dynamical interpretation, multi-input output system, impulse and step matrices, chaos. Prereq: COI. **3u.**

215 Introduction to Mathematical Modeling. Fundamental concepts of mathematical modeling; differential equation models; optimization models; probabilistic models. Prereq: COI **3u.**

216 Applied Partial Differential Equations. Parabolic (heat), hyperbolic (wave), and elliptic (steady-state) partial differential equations; solution techniques are demonstrated, including separation of variables and integral forms. Prereq: COI. **3u.**

217 Integral Equations. Fredholm integral equations, Volterra integral equations; integro-differential equations, singular integral equations, nonlinear integral equations, integral of irrational functions; series representations, error and gamma functions. Prereq: COI. **3u.**

218 Introduction to Applied Mathematics. Calculus of Variations; the Rayleigh-Ritz-Galerkin method and finite elements; Fourier series and orthogonal expansion. Fourier integrals. Prereq: COI. **3u.**

219 Delay Differential Equations. Introduction to delay differential equations in modelling, examples of delay differential equations, comparison of ordinary differential equations and delay differential equations, delayed negative feedback, existence and uniqueness of solutions, continuous dependence, invariance, local stability analysis, Hopf bifurcation, numerical continuation and bifurcation

analysis of DDEs. Prereq: A course in differential equations/COI. **3u.**

221 Abstract Algebra I. Groups, subgroups, homomorphisms, cosets, normality, quotient groups. Special topics include direct products, generators and relations, finitely generated abelian groups, Sylow theorems, classification of finite groups, nilpotent and solvable series, normal and subnormal series. Applications include frieze groups, wallpaper groups, permutation groups and symmetry groups. **3u.**

222 Linear Algebra. Linear equations. Vector spaces. Linear transformations. Matrices. Determinants. Invariant subspaces. Direct sum decompositions. Canonical forms. Rational and Jordan forms. Inner product spaces. Bilinear forms. Emphasizes proofs. Applications in various disciplines. **3u.**

223 Abstract Algebra II. Rings and fields: Integral domains, ideal and factor rings, ring homomorphisms, polynomial rings, factorization of polynomials, extension fields, and finite fields. Galois Theory: Fundamental theorem of Galois theory, splitting fields, algebraic closure, and normality, Galois group of a polynomial, separability, cyclic, cyclotomic and radical extensions. Prereq: Math 221. **3u.**

224 Matrix Analysis. Eigenvalues and eigenvectors, similarity, unitary similarity and equivalence, canonical forms for similarity, triangular factorizations, Hermitian and symmetric matrices and norms for vectors and matrices. Prereq: Math 222/equivalent. **3u.**

225 Number Theory with Applications. Theory of congruence, Fermat's Theorem, number-theoretic functions, primitive roots and indices, quadratic reciprocity law, perfect numbers, Fermat Conjecture; applications. Prereq: COI. **3u.**

232 Real Analysis. Rigorous introduction to classical real analysis. Brief review of real numbers and a discussion of the topology of metric spaces; includes detailed discussion of the following topics: the analysis of sequences and series; continuity, differentiation and Taylor's theorem; Riemann and Lebesgue integration; measure theory. Prereq: COI. **3u.**

234 Complex Analysis. Analytic functions, integration, power series, residue and applications, Mittag-Leffler's theorem, conformal mapping. Prereq: COI. **3u.**

235 Applied Complex Variable Theory. Complex function theory, contour integration and residue, integral transform, analytic continuation; applications of complex variables to potential theory; Fourier and Laplace transforms, ordinary and partial differential equations, number theory, chaotic dynamical systems, etc. Prereq: Math 234. **3u.**

236 Numerical Analysis. Construction, analysis and implementation of numerical algorithms; solution of nonlinear equations; linear systems and differential equations; interpolation and functional approximation; numerical differentiation, numerical integration, numerical optimization; eigenvalues and eigenvectors. Prereq: COI. **3u.**

237 Functional Analysis. Banach spaces; review of Lebesgue integration and Lp spaces; foundations of Linear operator theory, nonlinear operators; the contraction mapping principle; nonlinear compact operators and monotonicity; the Schauder Fixed Point Theorem; the Spectral Theorem. Prereq: Math 232/equiv. **3u.**

238 Semigroup Theory and Applications. Operator semigroups, infinitesimal generators, perturbation results, analytic semigroups, spectral theorems, Trotter-Kato theorem, and the applications of semigroup theory to fluid-structure models, delay differential equations, controllability and observability. Prereq: Math 237/COI. **3u**

239 Numerical Partial Differential Equations. Finite element spaces, polynomial interpolation in Sobolev spaces, error estimates, discontinuous Galerkin methods, mixed methods and the implementation of finite element methods. Prereq: Math 237 and Math 216 or COI. **3u**

240 Topological Structures. Metric spaces, topological spaces, bases, continuous functions; product spaces, compactness and completeness, sequence and natural countability, separability and metrization; quotients, local compactness, complete metrics, Baire category; Banach Fixed point theorem; Manifolds. Prereq: COI. **3u.**

241 Algebraic Topology. Homotopy, Fundamental Group, Seifert-Van Kampen Theorem, Covering Spaces, Deck Transformations, Simplicial Complexes, Simplicial Homology, Euler characteristic, Mayer-Vietoris Sequences, Universal Coefficient Theorem, Cohomology, Poincaré Duality. Prereq: COI. **3u**

245 Computational Topology with Applications. Triangulations, Čech and Vietoris-Rips Complexes, Homology, Persistence, Barcodes and Stability, Morse Functions, Spectral Sequences, Sheaves, Network Flows. Prereq: Math 241/COI. **3u**

250 Modern Geometry. Finite geometries, geometric transformations, Non-Euclidean geometry and projective geometry; various applications will be considered throughout the course. **3u.**

251 Differential Geometry. Differentiable manifolds, basic tools in differential geometry and applications of differential geometric methods. Prereq: Math 240/COI. **3u**

255 Applied Combinatorics. Inclusion and Exclusion Principle; generating functions, recurrence relations, cycles and trees, optimization and matching, switching functions, and coding theory. Applications. **3u.**

256 Graph Theory. Elements of Graph Theory, Covering Circuits and Graph Coloring, trees and searching, network algorithms, Polya's Enumeration formula, games with graphs. Prereq: COI. **3u.**

260 Probability and Applications. Probability spaces and random variables, probability distributions and distribution functions, mathematical expectation, elementary distribution theory; random sampling; estimation; experimental design. **3u.**

280 Linear and Nonlinear Optimization. Fundamentals of optimization, simplex method, duality and sensitivity, interior point methods, unconstrained optimization,

optimality conditions for constrained problem, and feasible-point methods. Prereq: COI. **3u**

296 Selected Topics in Applied Analysis. Topics covering any of the following but not limited to: Calculus of Variations, Fourier Series, Optimal Control Theory. Prereq: COI. **3u. May be taken twice.**

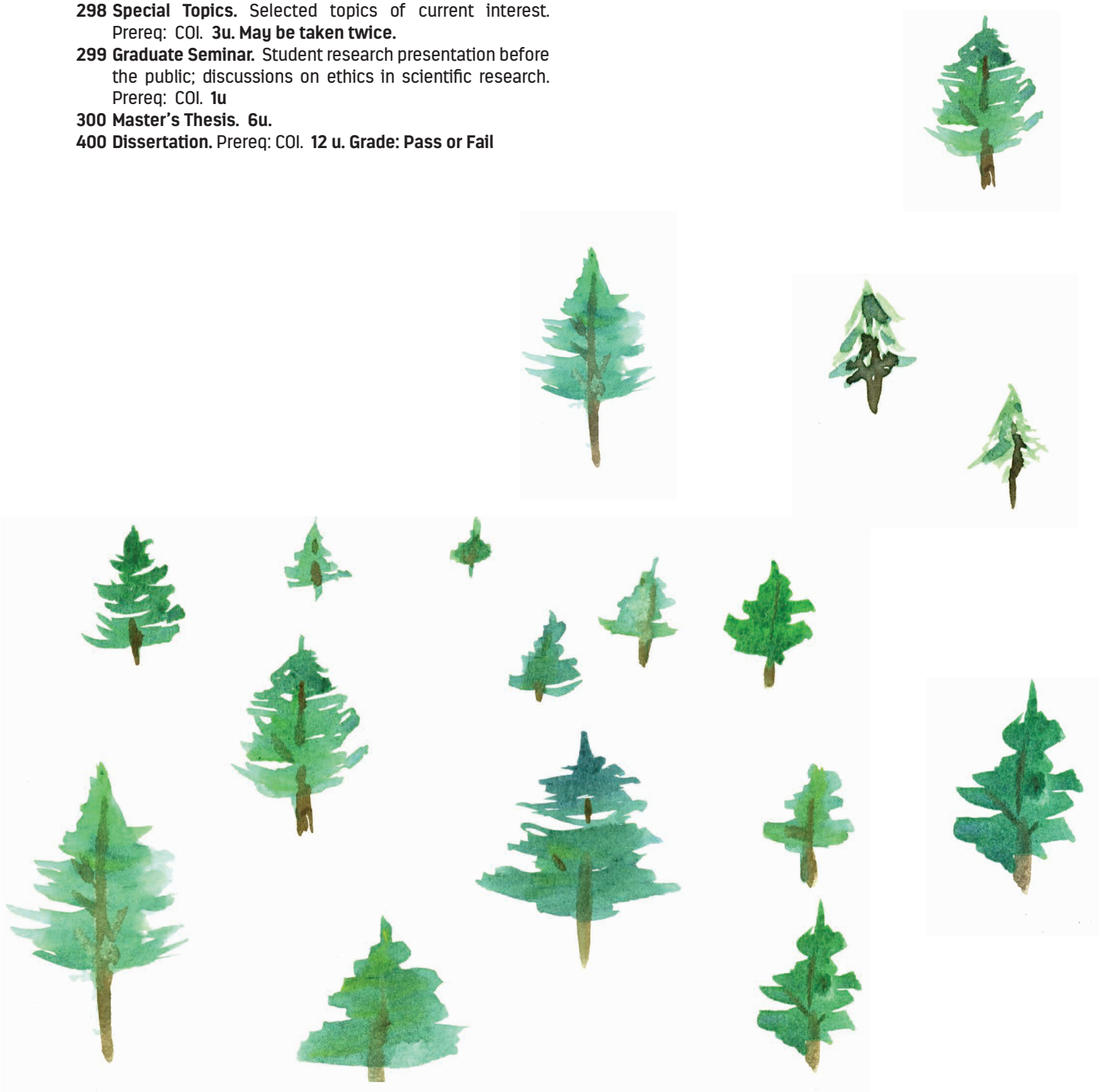
297 Independent Study. Student presentations on topics relevant to specialization in graduate research colloquia. Prereq: COI. **3u. May be taken twice.**

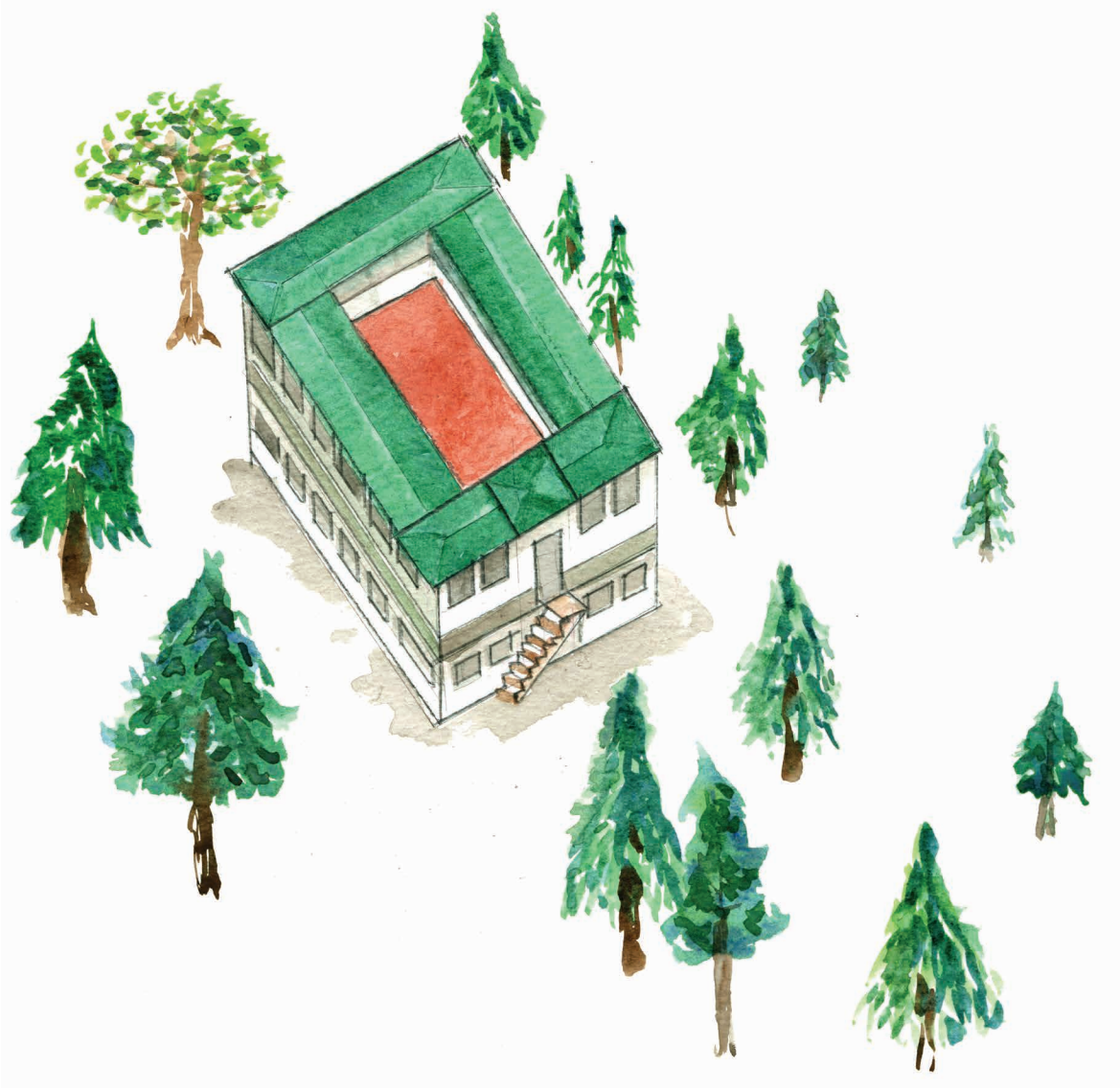
298 Special Topics. Selected topics of current interest. Prereq: COI. **3u. May be taken twice.**

299 Graduate Seminar. Student research presentation before the public; discussions on ethics in scientific research. Prereq: COI. **1u**

300 Master's Thesis. 6u.

400 Dissertation. Prereq: COI. **12 u. Grade: Pass or Fail**





COLLEGE OF SOCIAL SCIENCES

The College of Social Sciences came into existence on December 2, 2002 when the University of the Philippines Baguio became the seventh constituent unit of the UP System. The College, formerly the Division of Social Sciences, is configured into three departments, namely Economics and Political Science, History and Philosophy, and Anthropology, Sociology and Psychology. It includes the Institute of Management, formerly the Management Sciences Division.

The College offers curricular, research and extension programs that are both interdisciplinary and socially engaged.

UNDERGRADUATE PROGRAMS
The College offers two undergraduate degrees, namely B.A. Social Sciences and BS Management Economics.

The B.A. Social Sciences program follow a major-minor scheme. A student can choose to major in Economics, History, or Anthropology, and minor in Philosophy, Political Science, Psychology, or Sociology.

The Majors
Anthropology aims for a holistic study of man and culture. It seeks to understand the complexity of human beings and societies—their variations, adaptive strategies, and changes across time and space. The program fosters a deeper appreciation of cultural diversity and trains students to do anthropological research with analytic and methodological rigor.

Economics integrates a social science perspective that puts forth a holistic and humanistic, rather than a merely technical view of economic issues. It intends to produce graduates who possess fundamental skills in economic analysis. The program will cultivate a general familiarity with the political, social, and cultural context of economic behavior.

History studies the human past. Complex changes and continuities in the economic, social, political, and cultural life of a community are best understood in an interdisciplinary and integrated manner. The program equips students with various methodologies in research and writing history. It also aims to develop a global outlook that is grounded in nationalism and local knowledge.

The Minors

Philosophy inquires into the fundamental questions about the world, knowledge, and the human condition. The program provides basic proficiency in the history of philosophy and the main areas of philosophical inquiry, as well as skills and competencies necessary for philosophical research. Its mode of philosophizing mediates local experiences and sources with universal thinking, and is in dialogue with the natural and social sciences, the humanities and the arts.

Political Science teaches its practitioners both the questions that political scientists ask in their attempt to understand politics and the manner of asking them. It develops independent and critical thinking on the application of concepts to current political events.

Psychology introduces the student to the study of behavior and mental life, the investigation of the causes and dynamics of behavioral patterns and provides the students with knowledge, skills, and techniques for solutions of individual problems.

Sociology studies humans in various levels of group life, from the smallest dyad to the largest of social organizations, the society. The discipline hinges on an intellectual tradition that continues to be shaped by attempts to understand order and change in society.

BS Management Economics

The BS Management Economics program provides knowledge and training in business management anchored on conceptual foundations developed in the field of economics. Students of the program shall learn the skills for effective business practices adapted to a prevailing context, but responsive to change and conducive to innovation. In addition to learning about the fundamental business management areas of operations, marketing, finance, and human resources, the program covers macro- and micro-economic tools of analysis for management and decision making.

GRADUATE PROGRAMS

The College offers two graduate programs.

Master of Management is a non-thesis graduate program with a generalist orientation. It provides the students with the knowledge and skills for the effective and efficient management of all types of organizations or institutions.

Master of Arts in Social and Development Studies is a graduate degree program utilizing approaches from the various social science disciplines to analyze the issues and problems of development.

RESEARCH PROGRAM

The faculty of the College actively pursue individual and/or team research on a wide range of topics on the Cordillera, Northern Luzon and beyond. Some of the major themes of social scientific inquiry include: natural resource management, governance and public policy, ethnicity and cultural studies, indigenous knowledge, local/ethno history and human lives in transition. Research and publication programs are mainly carried out under the auspices of the Cordillera Studies Center, the research arm of UP Baguio.

EXTENSION PROGRAM

Service to the region and the nation is channeled through the Social Science Research and Extension Institute (SSREI). The Institute is a research training program catering to development workers from the government, non-government and civil society organizations, the academe, as well as the private sector. It offers regular courses in basic and applied social research as well as specialized courses in development. The regular courses include quantitative and qualitative research. Special courses include: applied social research (policy research, evaluation research and social impact assessment), local history, psycho-social activities, facilitator's training, enterprise development and project management.

BACHELOR OF ARTS IN SOCIAL SCIENCES

Major in History, Economics or Anthropology

Minor in Philosophy, Political Science, Psychology or Sociology

(APPROVAL: UPB UC 24 April 2017; EVP T. J. HERBOSA, by authority of the President, 25 October 2017)

New GE Program (effective SY 2018-2019)	Core Courses Arts and Humanities (AH) Domain: 9 units Social Sciences & Philosophy (SSP) Domain : 9 units Natural Sciences & Mathematics (NSM) Domain: 9 units GE Electives (3 units per domain) 9 units	36 units
SOCIAL SCIENCE CORE COURSES	SS 100, 101, 180, 197, 198, 199	19 units
CONCENTRATION COURSES	Economics Econ 101, 102, 106, 121, 131, 141, 151, 191, 200; two Economics electives from any of the following: Econ 109, 110, 116, 142, 152, 161, 171, 181, 189, 194, 195, 198	36 units
	History Hist 100, 102, 112, 113, 114, 117, 119, 151, 154, 199, 200; two History electives from any of the following: Hist 106, 110, 115, 116, 120, 140, 141, 168, 198	39 units
	Anthropology Anthro 100, 104, 113, 119, 132, 170, 173, 179, 192, 199, 200; one Anthropology elective from any of the following: Anthro 133, 141, 151, 161, 181, 182, 198	36 units
OTHER REQUIRED COURSES	PI 100*, Comm 11 / Kom 11*, Math 100** Foreign Language 1.1***, Foreign Language 1.2*** **Required for all BASS majors* *** Required for BASS Economics majors only* **** Required for BASS History majors only*	6-12 units
MINOR COURSES	Philosophy Philo 11, 110, 111, 112, 113, 130, 150, 171 and one Philosophy elective from any of the following: Philo 125, 126, 170, 177, 194, 198	27 units
	Political Science PS 100, 150, 160, 178, 182, 192 and two Political Science electives from any of the following: PS 151, 152, 153, 161, 163, 171, 172, 177, 179, 183, 185, 186, 190, 193, 194, 197, 198	24 units
	Psychology Psych 101, 140, 150, 155, 180 and three Psychology electives from any of the following: Psych 115, 135, 145, 160, 162, 163, 171, 172, 181, 182, 195 or any upper division course in the Social Sciences recommended by the discipline	24 units
	Sociology Socio 101, 114, 132, 142, 153, 160, 195 and one Sociology elective from any of the following: Socio 102, 109, 119, 125, 126, 198, 199	24 units
	TOTAL NUMBER OF UNITS: : BA SS (Anthropology) BA SS (Economics) BA SS (History)	 121-124 UNITS 125-128 UNITS 130-133 UNITS

B.A. SOCIAL SCIENCES
Major Concentration: Anthropology, Minor Discipline: Philosophy

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 – SSP I (KAS 1/HIST I)	3	GE 5 – AH II (COMM 10)	3
GE 2 – AH I (WIKA 1)	3	GE 6 – SSP III (ETHICS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 7 – NSM II (SCIENCE 11)	3
GE 4 – SSP II (SAS 1)	3	Comm 11 / Kom 11	3
Anthropology 100	3	Anthropology 104	3
PE 1	(2)	P.E. 2*	(2)
Total	15	Total	15
SECOND YEAR			
GE 8 – AH III (ARTS 1)	3	GE 10 – AH IV (Elective)	3
GE 9 – NSM III (STS 1)	3	Social Science 100	3
Anthropology 170	3	Social Science 101	4
Philosophy 11	3	Anthropology 192	3
Philosophy 110	3	Philosophy 111	3
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	15	Total	16
THIRD YEAR			
GE 11 – NSM IV (Elective)	3	Social Science 199	3
Social Science 197	3	Anthropology 119	3
Anthropology 113	3	Anthropology 132	3
Anthropology 199	3	Anthropology 173	3
Philosophy 112	3	Philosophy 113	3
Total	15	Total	15
FOURTH YEAR			
GE 12 – SSP IV (Elective)	3	Social Science 180	3
P.I. 100	3	Social Science 198	3
Anthropology Elective	3	Anthropology 179	3
Anthropology 200	3	Philosophy 150	3
Philosophy 171	3	Philosophy Elective	3
Philosophy 130	3		
Total	18	Total	15
			Total number of units: 124 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: Anthropology; Minor Discipline: Political Science

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 – SSP I (KAS 1/HIST I)	3	GE 5 – AH II (COMM 10)	3
GE 2 – AH I (WIKA 1)	3	GE 6 – SSP III (ETHICS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 7 – NSM II (SCIENCE 11)	3
GE 4 – SSP II (SAS 1)	3	Anthropology 104	3
Anthropology 100	3	Political Science 100	3
PE 1	(2)	P.E. 2*	(2)
Total	15	Total	15
SECOND YEAR			
GE 8 – AH III (ARTS 1)	3	GE 10 – AH IV (Elective)	3
GE 9 – NSM III (STS 1)	3	Social Science 100	3
Comm 11 / Kom 11	3	Social Science 101	4
Anthropology 170	3	Anthropology 192	3
Political Science 160	3	Political Science 150	3
P.E. 2*	(2)	Political Science Elective 1	3
NSTP 1	(3)	P.E. 2*	(2)
		NSTP 2	(3)
Total	15	Total	19
THIRD YEAR			
GE 11 – NSM IV (Elective)	3	Social Science 199	3
Social Science 197	3	Anthropology 119	3
Anthropology 113	3	Anthropology 132	3
Anthropology 199	3	Anthropology 173	3
Political Science 178	3	Political Science 182	3
Political Science Elective 2	3		
Total	18	Total	15
FOURTH YEAR			
GE 12 – SSP IV (Elective)	3	Social Science 180	3
P.I. 100	3	Social Science 198	3
Anthropology Elective	3	Anthropology 179	3
Anthropology 200	3		
Political Science 192	3		
Total	15	Total	9
			Total number of units: 121 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: Anthropology; Minor Discipline: Psychology

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 – SSP I (KAS 1 / HIST I)	3	GE 5 – AH II (COMM 10)	3
GE 2 – AH I (WIKA 1)	3	GE 6 – SSP III (ETHICS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 7 – NSM II (SCIENCE 11)	3
GE 4 – SSP II (SAS 1)	3	GE 8 – AH III (ARTS 1)	3
Anthropology 100	3	Anthropology 104	3
PE 1	(2)	P.E. 2*	(2)
Total	15	Total	15
SECOND YEAR			
GE 9 – NSM III (STS 1)	3	GE 11 – AH IV (Elective)	3
GE 10 – SSP IV (Elective)	3	Social Science 100	3
Comm 11 / Kom 11	3	Social Science 101	4
Anthropology 170	3	Anthropology 192	3
Psychology 101	3	Psychology 150	3
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	15	Total	16
THIRD YEAR			
GE 12 – NSM IV (Elective)	3	Social Science 199	3
Social Science 197	3	Anthropology 119	3
Anthropology 113	3	Anthropology 132	3
Anthropology 199	3	Anthropology 173	3
Psychology 140	3	Psychology 180	3
Total	15	Total	15
FOURTH YEAR			
P.I. 100	3	Social Science 180	3
Anthropology Elective	3	Social Science 198	3
Anthropology 200	3	Anthropology 179	3
Psychology 155	3	Psychology Elective 2	3
Psychology Elective 1	3	Psychology Elective 3	3
Total	15	Total	15
		Total number of units: 121 units	

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: Anthropology; Minor Discipline: Sociology

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 – SSP I (KAS 1/HIST I)	3	GE 5 – AH II (COMM 10)	3
GE 2 – AH I (WIKA 1)	3	GE 6 – SSP III (ETHICS 1)	3
GE 3 – NSM I (SCIENCE 10)	3	GE 7 – NSM II (SCIENCE 11)	3
GE 4 – SSP II (SAS 1)	3	GE 8 – AH III (ARTS 1)	3
Anthropology 100	3	Anthropology 104	3
PE 1	(2)	PE 2*	(2)
Total	15	Total	15
SECOND YEAR			
GE 9 – NSM III (STS 1)	3	Social Science 100	3
GE 10 – AH IV (Elective)	3	Social Science 101	4
Comm 11 / Kom 11	3	Anthropology 192	3
Anthropology 170	3	Sociology 114	3
Sociology 101	3	Sociology 142	3
PE 2*	(2)	PE 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	15	Total	16
THIRD YEAR			
GE 11 – NSM IV (Elective)	3	Social Science 199	3
Social Science 197	3	Anthropology 119	3
Anthropology 113	3	Anthropology 132	3
Anthropology 199	3	Anthropology 173	3
Sociology 195	3	Sociology 132	3
Total	15	Total	15
FOURTH YEAR			
GE 12 – SSP IV (Elective)	3	P.I. 100	3
Anthropology Elective	3	Social Science 180	3
Anthropology 200	3	Social Science 198	3
Sociology 160	3	Anthropology 179	3
Sociology Elective	3	Sociology 153	3
Total	15	Total	15
Total number of units: 121 units			

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: Economics; Minor Discipline: Philosophy

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - AH I (WIKA 1)	3	GE 4 - AH II (COMM 10)	3
GE 2 - SSP I (KAS 1/HIST I)	3	GE 5 - NSM I (SCIENCE 10)	3
GE 3 - SSP II (SAS 1)	3	GE 6 - NSM II (SCIENCE 11)	3
Math 100	4	GE 7 - SSP III (ETHICS 1)	3
Economics 101	4	Economics 102	4
P.E. 1	(2)	P.E. 2*	(2)
Total	17	Total	16
SECOND YEAR			
GE 8 - AH III (ARTS 1)	3	GE 10 - NSM III (STS 1)	3
GE 9 - SSP IV (Elective)	3	Social Science 100	3
Economics 106	3	Social Science 101	4
Economics 121	3	Economics 151	3
Philosophy 11	3	Philosophy 111	3
Philosophy 110	3	P.E. 2*	(2)
P.E. 2*	(2)	NSTP 2	(3)
NSTP 1	(3)		
Total	18	Total	16
THIRD YEAR			
GE 11 - NSM IV (Elective)	3	GE 12 - AH IV (Elective)	3
Comm 11 / Kom 11	3	Social Science 199	3
Social Science 197	3	Economics 141	3
Economics 131	4	Economics 191	3
Economics Elective 1	3	Economics Elective 2	3
Philosophy 112	3	Philosophy 113	3
Total	19	Total	18
FOURTH YEAR			
Social Science 180	3	PI 100	3
Social Science 198	3	Philosophy 150	3
Economics 200	3	Philosophy Elective	3
Philosophy 171	3		
Philosophy 130	3		
Total	15	Total	9
			Total number of units: 128 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: Economics; Minor Discipline: Political Science

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - AH I (WIKA 1)	3	GE 4 - AH II (COMM 10)	3
GE 2 - SSP I (KAS 1/HIST I)	3	GE 5 - NSM I (SCIENCE 10)	3
GE 3 - SSP II (SAS 1)	3	GE 6 - NSM II (SCIENCE 11)	3
Math 100	4	GE 7 - SSP III (ETHICS 1)	3
Economics 101	4	Economics 102	4
P.E. 1	(2)	Political Science 100	3
		P.E. 2*	(2)
Total	17	Total	19
SECOND YEAR			
GE 8 - AH III (ARTS 1)	3	GE 10 - NSM III (STS 1)	3
GE 9 - SSP IV (Elective)	3	Social Science 100	3
Comm 11 / Kom 11	3	Social Science 101	4
Economics 106	3	Economics 151	3
Economics 121	3	Political Science 150	3
Political Science 160	3	Political Science Elective 1	3
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	19
THIRD YEAR			
GE 11 - NSM IV (Elective)	3	GE 12 - AH IV (Elective)	3
Social Science 197	3	Social Science 199	3
Economics 131	4	Economics 141	3
Economics Elective 1	3	Economics 191	3
Political Science 178	3	Economics Elective 2	3
Political Science Elective 2	3	Political Science 182	3
Total	19	Total	18
FOURTH YEAR			
PI 100	3		
Social Science 180	3		
Social Science 198	3		
Economics 200	3		
Political Science 192	3		
Total	15		
			Total number of units: 125 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: Economics; Minor Discipline: Psychology

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - AH I (WIKA 1)	3	GE 4 - AH II (COMM 10)	3
GE 2 - SSP I (KAS 1/HIST I)	3	GE 5 - NSM I (SCIENCE 10)	3
GE 3 - SSP II (SAS 1)	3	GE 6 - NSM II (SCIENCE 11)	3
Math 100	4	GE 7 - SSP III (ETHICS 1)	3
Economics 101	4	Economics 102	4
P.E. 1	(2)	P.E. 2*	(2)
Total	17	Total	16
SECOND YEAR			
GE 8 - AH III (ARTS 1)	3	GE 10 - NSM III (STS 1)	3
GE 9 - SSP IV (Elective)	3	Social Science 100	3
Comm 11 / Kom 11	3	Social Science 101	4
Economics 106	3	Economics 151	3
Economics 121	3	Psychology 150	3
Psychology 101	3	P.E. 2*	(2)
P.E. 2*	(2)	NSTP 2	(3)
NSTP 1	(3)		
Total	18	Total	16
THIRD YEAR			
GE 11 - NSM IV (Elective)	3	GE 12 - AH IV (Elective)	3
Social Science 197	3	Social Science 199	3
Economics 131	4	Economics 141	3
Economics Elective 1	3	Economics 191	3
Psychology 140	3	Economics Elective 2	3
		Psychology 180	3
Total	16	Total	18
FOURTH YEAR			
Social Science 180	3	PI 100	3
Social Science 198	3	Psychology Elective 2	3
Economics 200	3	Psychology Elective 3	3
Psychology 155	3		
Psychology Elective 1	3		
Total	15	Total	9
			Total number of units: 125 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: Economics; Minor Discipline: Sociology

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - AH I (WIKA 1)	3	GE 4 - AH II (COMM 10)	3
GE 2 - SSP I (KAS 1/HIST I)	3	GE 5 - NSM I (SCIENCE 10)	3
GE 3 - SSP II (SAS 1)	3	GE 6 - NSM II (SCIENCE 11)	3
Math 100	4	GE 7 - SSP III (ETHICS 1)	3
Economics 101	4	Economics 102	4
P.E. 1	(2)	P.E. 2*	(2)
Total	17	Total	16
SECOND YEAR			
GE 8 - AH III (ARTS 1)	3	GE 10 - NSM III (STS 1)	3
GE 9 - SSP IV (Elective)	3	Social Science 100	3
Comm 11 / Kom 11	3	Social Science 101	4
Economics 106	3	Economics 151	3
Economics 121	3	Sociology 114	3
Sociology 101	3	Sociology 142	3
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	19
THIRD YEAR			
GE 11 - NSM IV (Elective)	3	GE 12 - AH IV (Elective)	3
Social Science 197	3	Social Science 199	3
Economics 131	4	Economics Elective 2	3
Economics Elective 1	3	Economics 141	3
Sociology 195	3	Economics 191	3
		Sociology 132	3
Total	16	Total	18
FOURTH YEAR			
PI 100	3	Sociology 153	3
Economics 200	3	Social Science 198	3
Sociology 160	3		
Sociology Elective	3		
Social Science 180	3		
Total	15	Total	6
			Total number of units: 125 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: History; Minor Discipline: Philosophy

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - SSP I (KAS 1/HIST I)	3	GE 5 - SSP III (ETHICS 1)	3
GE 2 - SSP II (SAS 1)	3	GE 6 - SSP IV (ELECTIVE)	3
GE 3 - AH I (WIKA 1)	3	GE 7 - AH II (COMM 10)	3
GE 4 - NSM I (SCIENCE 10)	3	GE 8 - NSM II (SCIENCE 11)	3
History 100	3	History 102	3
P.E. 1	(2)	P.E. 2*	(2)
Total	15	Total	15
SECOND YEAR			
Foreign Language 1.1	3	Foreign Language 1.2	3
Social Science 100	3	Comm 11 / Kom 11	3
History 113	3	Social Science 101	4
History 114	3	History 112	3
Philosophy 11	3	History 117	3
Philosophy 110	3	Philosophy 111	3
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	19
THIRD YEAR			
GE 9- AH III (ARTS 1)	3	GE 11 - NSM III (STS 1)	3
GE 10 - AH IV (Elective)	3	GE 12 - NSM IV (Elective)	3
Social Science 197	3	Social Science 199	3
History 154	3	History 119	3
History 199	3	History 151	3
Philosophy 112	3	Philosophy 113	3
Total	18	Total	18
FOURTH YEAR			
Social Science 180	3	Social Science 198	3
History 200	3	P.I. 100	3
History Elective 1	3	History Elective 2	3
Philosophy 171	3	Philosophy 150	3
Philosophy 130	3	Philosophy Elective	3
Total	15	Total	15
			Total number of units: 133 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: History; Minor Discipline: Political Science

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - SSP I (KAS 1/HIST I)	3	GE 5 - SSP III (ETHICS 1)	3
GE 2 - SSP II (SAS 1)	3	GE 6 - SSP IV (Elective)	3
GE 3 - AH I (WIKA 1)	3	GE 7 - AH II (COMM 10)	3
GE 4 - NSM I (SCIENCE 10)	3	GE 8 - NSM II (SCIENCE 11)	3
History 100	3	History 102	3
P.E. 1	(2)	Political Science 100	3
		P.E. 2*	(2)
Total	15	Total	18
SECOND YEAR			
Foreign Language 1.1	3	Foreign Language 1.2	3
Comm 11 / Kom 11	3	Social Science 101	4
Social Science 100	3	History 112	3
History 113	3	History 117	3
History 114	3	Political Science 150	3
Political Science 160	3	Political Science Elective 1	3
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	19
THIRD YEAR			
GE 9- AH III (ARTS 1)	3	GE 11 - NSM III (STS 1)	3
GE 10 - AH IV (Elective)	3	GE 12 - NSM IV (Elective)	3
Social Science 197	3	Social Science 199	3
History 154	3	History 119	3
History 199	3	History 151	3
Political Science 178	3	Political Science 182	3
Total	18	Total	18
FOURTH YEAR			
Social Science 180	3	Social Science 198	3
History 200	3	P.I. 100	3
History Elective 1	3	History Elective 2	3
Political Science Elective 2	3		
Political Science 192	3		
Total	15	Total	9
			Total number of units: 130 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: History; Minor Discipline: Psychology

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - SSP I (KAS 1/HIST I)	3	GE 5 - SSP III (ETHICS 1)	3
GE 2 - SSP II (SAS 1)	3	GE 6 - SSP IV (Elective)	3
GE 3 - AH I (WIKA 1)	3	GE 7 - AH II (COMM 10)	3
GE 4 - NSM I (SCIENCE 10)	3	GE 8 - NSM II (SCIENCE 11)	3
History 100	3	History 102	3
P.E. 1	(2)	P.E. 2*	(2)
Total	15	Total	15
SECOND YEAR			
Foreign Lang 1.1	3	Foreign Lang 1.2	3
Comm 11 / Kom 11	3	Social Science 101	4
Social Science 100	3	History 112	3
History 113	3	History 117	3
History 114	3	Psychology 150	3
Psychology 101	3	P.E. 2*	(2)
P.E. 2*	(2)	NSTP 2	(3)
NSTP 1	(3)		
Total	18	Total	16
THIRD YEAR			
GE 9- AH III (ARTS 1)	3	GE 11 - NSM III (STS 1)	3
GE 10 - AH IV (Elective)	3	GE 12 - NSM IV (Elective)	3
Social Science 197	3	Social Science 199	3
History 154	3	History 119	3
History 199	3	History 151	3
Psychology 140	3	Psychology 180	3
Total	18	Total	18
FOURTH YEAR			
Social Science 180	3	Social Science 198	3
History 200	3	P.I. 100	3
History Elective 1	3	History Elective 2	3
Psychology 155	3	Psychology Elective 2	3
Psychology Elective 1	3	Psychology Elective 3	3
Total	15	Total	15
			Total number of units: 130 units

**PE 2 should be taken in different events.*

B.A. SOCIAL SCIENCES
Major Concentration: History; Minor Discipline: Sociology

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - SSP I (KAS 1/HIST I)	3	GE 5 - SSP III (ETHICS 1)	3
GE 2 - SSP II (SAS 1)	3	GE 6 - SSP IV (Elective)	3
GE 3 - AH I (WIKA 1)	3	GE 7 - AH II (COMM 10)	3
GE 4 - NSM I (SCIENCE 10)	3	GE 8 - NSM II (SCIENCE 11)	3
History 100	3	History 102	3
P.E. 1	(2)	P.E. 2*	(2)
Total	15	Total	15
SECOND YEAR			
Foreign Language 1.1	3	Foreign Language 1.2	3
Comm 11 / Kom 11	3	Social Science 101	4
Social Science 100	3	History 112	3
History 113	3	History 117	3
History 114	3	Sociology 114	3
Sociology 101	3	Sociology 142	3
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	18	Total	19
THIRD YEAR			
GE 9- AH III (ARTS 1)	3	GE 11 - NSM III (STS 1)	3
GE 10 - AH IV (Elective)	3	GE 12 - NSM IV (Elective)	3
Social Science 197	3	Social Science 199	3
History 154	3	History 119	3
History 199	3	History 151	3
Sociology 195	3	Sociology 132	3
Total	18	Total	18
FOURTH YEAR			
Social Science 180	3	Social Science 198	3
History 200	3	P.I. 100	3
History Elective 1	3	History Elective 2	3
Sociology 160	3	Sociology 153	3
Sociology Elective	3		
Total	15	Total	12
			Total number of units: 130 units

**PE 2 should be taken in different events.*

BACHELOR OF SCIENCE IN MANAGEMENT ECONOMICS

(APPROVAL: UPB UC 24 April 2017; EVP T.J.HERBOSA, by authority of the President, 25 October 2017)

Program Structure

NEW GE PROGRAM	Core Courses Arts and Humanities (AH) Domain: 9 units Social Sciences & Philosophy (SSP) Domain : 9 units Natural Sciences & Mathematics (NSM) Domain: 9 units GE Electives (3 units per domain) 9 units	36 units
BUSINESS ADMINISTRATION COURSES	Accounting 1, BA 101, 105, 115, 141, 142, 151, 152, 161, 162, 170, 180.1; Any 2 BA electives from BA 107, 145, 172, 173, 181, 192, 198	42 units
ECONOMICS COURSES	Econ 101, 102, 106, 121, 131, 141; Any 2 Econ electives from Econ 151, 171, 181, 191, 194, 198	27 units
INTEGRATING COURSES	BA 190, 199, Mgt Econ 143, 199.1, 199.2, 200, Econ 161	21 units
OTHER REQUIRED COURSES	Math 100, Soc Sci 101, P.I. 100	11 units
		TOTAL NUMBER OF UNITS: 137 UNITS

BS MANAGEMENT ECONOMICS
PROGRAM CHECKLIST

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
GE 1 - AH I (WIKA 1)	3	GE 6 - SSP III (ETHICS 1)	3
GE 2 - AH II (COMM 10)	3	GE 7 - SSP IV (Elective)	3
GE 3 - NSM I (SCIENCE 10)	3	GE 8 - NSM II (SCIENCE 11)	3
GE 4 - SSP I (KAS 1/HIST I)	3	BA 101	3
GE 5 - SSP II (SAS 1)	3	Math 100	4
P.E. 1	(2)	P.E. 2*	(2)
Total	15	Total	16
SECOND YEAR			
GE 9 - AH III (ARTS 1)	3	GE 11 - AH IV (Elective)	3
GE 10 - NSM III (STS 1)	3	GE 12 - NSM IV (Elective)	3
Accounting 1	3	BA 115	3
BA 151	3	BA 141	3
BA 180.1	3	BA 152	3
Econ 101	4	Econ 102	4
P.E. 2*	(2)	P.E. 2*	(2)
NSTP 1	(3)	NSTP 2	(3)
Total	19	Total	19
THIRD YEAR			
BA 142	3	BA 105	3
BA 170	3	BA 161	3
Econ 106	3	Mgt Econ 143	3
Econ 121	3	Mgt Econ 199.1	3
Econ 161	3	Econ 131	4
Soc Sci 101	4	Econ 141	3
Total	19	Total	19
MIDYEAR TERM			
		BA 199	3
		Total	3
FOURTH YEAR			
BA 162	3	BA Elective 2	3
BA 190	3	Econ Elective 2	3
BA Elective 1	3	P.I. 100	3
Econ Elec 1	3	Mgt Econ 200	3
Mgt Econ 199.2	3		
Total	15	Total	12
			Total number of units: 137 units

**PE 2 should be taken in different events.*

MASTER OF ARTS IN SOCIAL AND DEVELOPMENT STUDIES

(APPROVAL: UPB UC, 12 December 2003; President F. Nemenzo, 24 January 2004)

Program Structure

CORE	SDS 201, 202, 271, 290, 299	15 units
QUALIFIED ELECTIVES	Thesis Plan (TP) Non-Thesis Plan (NTP) from SDS 230, 265, 278, 292, 298*, 299.1, 299.2 **may be taken for a maximum of 9 units*	9 units 12 units
ELECTIVES	May be taken from any graduate course in consultation with the adviser	6 units
REQUIRED COURSES	TP (SDS 300) NTP (SDS 279)	6 units 3 units
COMPREHENSIVE EXAM		
TOTAL NUMBER OF UNITS: 36 UNITS		

PROGRAM CHECKLIST

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
SDS 201	3	SDS 290	3
SDS 202	3	SDS 299	3
SDS 271	3	Qualified Elective 2	3
Qualified Elective 1	3	Qualified Elective 3	3
Total	12	Total	12
SECOND YEAR			
Thesis Plan			
Elective 1	3		
Elective 2	3		
SDS 300	6		
Total	12		
Non-Thesis Plan			
Qualified Elective 4	3		
Elective 1	3		
Elective 2	3		
SDS 279	3		
Total	12		

MASTER OF MANAGEMENT

(APPROVAL: UPB UC, 5 December 2005; President E.R. ROMAN, 20 January 2006)

Program Structure

CORE	MM 201, 202, 203, 220, 222, 230, 240, 291.1, 291.2	27 units
ELECTIVES	Any 3 courses from MM 250, 292, 293*, 294, 295, 296, 298**, 299 **cross-listed with SDS 201* ***may be taken twice with different topics*	9 units
COMPREHENSIVE EXAM	May be taken in the midyear.	
TOTAL NUMBER OF UNITS: 36 UNITS		

PROGRAM CHECKLIST

First Semester		Second Semester	
Course	Units	Course	Units
FIRST YEAR			
MM 201	3	MM 222	3
MM 202	3	MM 230	3
MM 203	3	MM 240	3
MM 220	3		
Total	12	Total	9
SECOND YEAR			
MM 291.1	3	MM 291.2	3
Elective 1	3	Elective 3	3
Elective 2	3		
Total	9	Total	6

NEW GENERAL EDUCATION PROGRAM (EFFECTIVE SY 2018-2019)

CORE COURSES

ETHICS 1 Ethics and Moral Reasoning in Everyday Life. The nature and development, sources and frameworks of ethics and moral reasoning and their application to various issues and contexts. **3u**

HIST I History of the Philippines. The political, economic, social, and cultural development of the Philippines. **3u.**

KAS 1 Kasaysayan ng Pilipinas. Ang pampulitika, pang-ekonomya, panlipunan, at pangkalinangang pagsulong ng Pilipinas. **3u**

SAS 1 Self and Society. Understanding the self by examining the interaction of biological, psychological and socio-cultural dimensions and appreciating human agency and the emergence of the self in different social contexts**. 3u**

GE ELECTIVES

HIST 3 History of Philippine Ethnic Minorities. An introduction to the history, society, and institutions of Philippine ethnic minorities. **3u**

PHILO 27 Philosophizing on Being Human. Various philosophical notions and interpretations of human identity and the human condition. **3u**

SOC SCI 30 Notions of Justice. Various notions of justice, its elements, applications and critique. **3u**

GENERAL EDUCATION (GEP) AND REVITALIZED GENERAL EDUCATION (RGEP) COURSES

History

I Philippine History. The political, economic, social & cultural development of the Philippines. **3u.**

II Asia and the World. A study of Asian cultural heritage in relation to world civilization. **3u.**

3 History of Philippine Ethnic Minorities. An introduction to the history, society and institutions of Philippine Ethnic Minorities. **3u.**

Philosophy

I Philosophical Analysis. Application of basic concepts, skills and principles drawn from the Philosophy of Language, Symbolic Logic, Epistemology, Philosophy of Science and Ethics. **3u.**

27 Philosophizing on Being Human. Various philosophical notions and interpretations of human identity and the human condition. (Preferred year level: 2nd year and above). **3u.**

Psychology

10 Psychology for Everyday Life. Application of psychological principles for an understanding of self and of others. **3u.**

Social Science

I Foundations of Behavioral Sciences. A survey of basic concepts, principles, theories and methods of the behavioral sciences (Sociology, Psychology, Anthropology, Political Science, Economics, including Linguistics, Demography & Geography) and the dynamics of social change. **3u.**

II Social, Economic and Political Thought. A survey of social, economic, and political thought from the classical to contemporary times. **3u.**

10 The Filipino Family. Structure and dynamics in the Filipino family in the context of changing socio-economic realities. **3u.**

13 Gender and Society. Concepts, perspectives, legislation/ policies and issues on gender. **3u.**

30 Notions of Justice. Various notions of justice, its elements, applications and critique. (Preferred year level: 2nd year and above). **3u.**

UNDERGRADUATE COURSES

Accounting

1 Introduction to Financial Accounting. Accounting concepts & principles applied to service, merchandising, & manufacturing operations; partnerships & corporations; the analysis, interpretation & uses of accounting data for management. Prereq: SYS (second year standing). **3u.**

Anthropology

100 General Anthropology. Physical origins of man, his evolutionary development, nature of culture, and structure of social behavior. **3u.**

104 Human Evolution. Fossil & cultural evidence of human evolution. Prereq: Anthro 100. **3u.**

111 Introduction to Archaeology. The beginnings of culture up to the advent of writing. **3u.**

113 Introduction to Philippine Archaeology. General theory and concepts in archaeology, and an outline of world prehistory with focus on the Philippines. 3**u.**

118 Prehistory of the Philippines. Theories and problems of the peopling of the Philippines. **3u.**

119 Introduction to Museology. Principles, methods and application. **3u.**

123 Peoples of the Philippines. Ethnography and cultural ecology. **3u.**

126 Social and Economic Life of the Philippine Mountain Peoples. Social and economic life of the Negritos, the Mindanao pagans, and the terrace building peoples of the Mountain Province. **3u.**

132 Introduction to Ecological Anthropology. Relation between cultural behavior and environmental phenomena. Prereq: Anthro 100. **3u.**

133 Economic Anthropology. Concepts, theories on production, consumption, distribution in traditional societies, and issues and impact of capitalism and globalization from the perspective of anthropology. **3u.**

141 **Introduction to Political Anthropology.** Problems of sanction and law, social control and government of pre-industrial societies. **3u.**
151 **Comparative Religion.** Studies of religious concepts, practices, and cultural expressions of religious systems. **3u.**
161 **Introduction to Folklore.** Oral and traditional literature of representative cultures of the world. **3u.**
170 **Language and Culture.** Relation between language and culture. **3u.**
173 **Introduction to Urban Anthropology.** Anthropological perspectives of urban societies. **3u.**
179 **Culture Change and Applied Anthropology.** Processes of unplanned and planned changes. Prereq: SS. **3u.**
181 **Social Anthropology.** Concepts, theories, and present-day implications of social anthropology. **3u.**
182 **Culture and Personality.** Role of culture in personality development. **3u.**
192 **Introduction to Anthropological Theory.** Development of anthropological thought. Prereq: Anthro 100. **3u.**
198 **Special Topics. 3u.**
199 **Field Methods.** Prereq: Anthro 192. **3u.**
200 **Bachelor's Thesis.** Prereq: Soc Sci 199. **3u.**

Business Administration

101 **Introduction to Business Management.** Principles & practices in business management; an overview of the functional areas of business; an introduction to case-problem solving. Prereq: JS; JS, COI (for non-BSME students). **3u.**
105 **Operations Management.** Introduction to the strategic & tactical decisions in manufacturing & service operations. Prereq: BA 101. **3u.**
107 **Management of Technology.** Effective management of technological advances especially planning & control for the benefit of the firm and society. Prereq: BA 105. **3u.**
115 **Management Accounting.** Uses of accounting information for managerial planning & control. Prereq: Accounting 1. **3u.**
141 **Business Finance I.** Introduction to principles governing financial management of business enterprises with emphasis on short-range planning & management of working capital. Prereq: Accounting 1. **3u**
142 **Business Finance II.** Long-range planning & management of the long-term financial position of a business organization; recapitalization & liquidation. Prereq: BA 115. **3u**
145 **Investments.** Principles & practice with special emphasis on the evaluation of project studies, security analysis & the establishment of standards for the selection of industry, issue & security. Prereq: Econ 121, SS. **3u.**
151 **Human Behavior in Organizations.** The concepts & principles of behavior in business organizations. Prereq: JS;JS, COI (for non-BSME students). **3u.**
152 **Human Resources Management.** Basic principles & frameworks in the management of acquisition, development & movement of human resources in organizations. Prereq: BA 101, 151. **3u.**
161 **Law on Business Transactions.** The Constitution, Obligations & Contracts, sales, quasedelicts, damages, lease, all special laws including presidential decrees & administrative regulations pertinent thereto. **3u.**
162 **Law on Business Organizations.** Agency, single proprietorships, partnerships, corporations, conglomerates, joint ventures, multinationals, securities act, insolvency law, civil code provisions on orders of preference and concurrence of credits, licensing of foreign corporations and cooperatives, and pertinent laws, rules and regulations administered by the Securities and Exchange Commission, Board of Investment, Central bank, Board of Domestic Trade and other government agencies. Prereq: BA 161/COD (Consent of Director). **3u.**
170 **Marketing Management.** Principles, practices & development of integrated marketing programs. Prereq: BA 101. **3u.**
172 **Marketing Communication.** Planning, managing & evaluating the communication mix-advertising, sales promotion, packaging, public relations & personal selling. Prereq: BA 170. **3u.**
173 **Consumer Behavior.** Psychological, economic, anthropological and sociological perspectives in understanding the consumer and in designing marketing programs. Prereq: BA 170. **3u.**
180.1 **Information Technology in Business I.** Information & communication technology concepts & tools; business process applications of software packages. Prereq: SYS. 3h (2 lec, 1 lab) **3u.**
181 **Management Science I.** Analysis and solution of management problems; deterministic models such as linear and integer programming, transportation, assignment, inventory management, and project management models. Prereq: Math 100, Soc Sci 101. **3u (2.5 lec, 0.5 lab)**
190 **Strategic Management.** An integrated approach to decision making viewed from a top management perspective; discussion of comprehensive problems of organization. Prereq: BA 105, 141, 170. **3u.**
192 **Entrepreneurship.** Principles, problems & practical aspects of entrepreneurship & intrapreneurship; innovation & new business formations in start-up or corporate settings. Prereq: JS. **3u.**
198 **Special Topics in Business Administration.** Special topics in the field of business administration. May be taken for credit more than once. 1 - **3u.**
199 **Business Practice.** Supervised fieldwork or internship. Prereq: JS. **3u.**

Economics

101 **Macroeconomics.** National income accounting; consumption & investment decisions; income and employment determination; monetary and fiscal policies; international policy; growth. **4u.**
102 **Microeconomics.** Demand and supply; price determination in competitive markets; income distribution; general equilibrium and welfare. **4u.**

106 Elements of Mathematical Economics. Mathematical approaches to elementary economic theory. Prereq: Econ 101, 102; Math 100. **3u.**

109 History of Economic Thought. Evolution of basic economic ideas and their social and intellectual context. Prereq: Econ 101, 102. **3u.**

110 Methods of Economic History. The study of the history and current status of economic systems, with focus on the tools of socio-economic analysis. Prereq: Econ 101, 102. **3u.**

116 The Economies of Asia. A regional survey. Prereq: Econ 101, 102. **3u.**

121 Monetary Economics. Nature and role of money; banks and other financial intermediaries; central banking and banking regulations; open economy issues; efficient markets theory; development finance. Prereq: Econ 101, 102. **3u.**

131 Introduction to Quantitative Economics. Representation of economic phenomena in terms of elementary mathematical and statistical models. Prereq: Econ 101, 102; Math 100, Soc Sci 101. **4u.**

141 International Economics. International trade and finance; commercial policy and the macroeconomics of an open economy. Prereq: Econ 101, 102. **3u.**

142 International Trade Policies. Problems and policies in international commerce; tariffs and controls; international agreements and organizations. Prereq: Econ 141/COI. **3u.**

151 Public Economics. Market failure; collective choice; theory of government expenditures and taxation. Prereq: Econ 101, 102. **3u.**

152 Taxation and Fiscal Policy. Tax policy and other fiscal policies for economic stability and growth. Prereq: Econ 151/COI. **3u.**

161 Industrial Organization. Firm and industry behavior under different market conditions; public policies toward business. Prereq: Econ 101, 102. **3u.**

171 Economics of Agriculture. Agriculture in strategies for economic development; economics of rural institutions; analysis of agricultural policy. Prereq: Econ 101, 102. **3u.**

181 Labor Economics. Determinants of wage levels and wage structure; employment; non-wage aspects of employment; aspects of human capital theory. Prereq: Econ 101, 102. **3u.**

189 Comparative Economic Systems. Analysis and comparison of theoretical and existing systems. Prereq: Econ 101, 102. **3u.**

191 Development Economics. Theories and problems of theoretical and existing systems. Prereq: Econ 101, 102. **3u.**

194 Economic Anthropology. Conceptual and empirical features of traditional economies, their place in the social system, and their responses to the spread of monetary and industrial economy from the perspective of economics. Prereq: Econ 101, 102. **3u.**

195 Reading Course in Economics. Individual work on special topics not included in the announced course offerings. Prereq: Econ 101, 102. **3u. May be taken twice.**

198 Special Topics in Economics. Prereq: Econ 101, 102. 3u. **May be taken twice provided the topics are not identical.**

200 Bachelor's Thesis. Prereq: SS, Soc Sci 199. **3u.**

EDCO

101 Introduction to Guidance. Philosophy, principles & techniques of guidance and organization of guidance programs. Prereq: Psych 150/COI. **3u.**

EDFD

110 Introduction to Developmental Psychology. Nature and principles of human development. The identification and analysis of factors affecting the growth, development, and behavior of the individual from infancy to adulthood and their implications on education and guidance. Prereq: Psych 150/COI. **3u.**

History

100 Introduction to World Civilizations. The historical development of world civilizations from ancient times to the present with emphasis on the growth and influence of basic ideals and institutions which have shaped mankind and the chief political, economic, social, and cultural movements. **3u.**

101 Ancient and Medieval History. Greece, Rome and Medieval Europe. **3u.**

102 Modern Europe. From the 16th century to the post World War II period. **3u.**

106 History of Spain. The historical development of Spain from the reign of King Charles I of Hapsburg dynasty of 1898. **3u.**

110 Colonial Philippines I. The Philippines under Spain. **3u.**

112 Economic History of the Philippines. History of economic activities and institutions in the Philippines from pre-colonial period to the present. **3u.**

113 Political History of the Philippines. Historical development of the Philippine state and society. **3u.**

114 Cultural History of the Philippines. The literary, artistic and intellectual history of the Philippines from the Spanish period to the present. **3u.**

115 Philippine Revolution. The Philippine Revolution and the Philippine-American War. **3u.**

116 Philippine Nationalism. The growth & development of nationalism in the Philippines. **3u.**

117 History of the Cordillera and Northern Luzon. Political, economic and socio-cultural development of the Cordillera, Cagayan and Ilocos region. **3u.**

119 History of Indigenous Peoples/Ethnic Minorities in Southeast Asia. Comparative history of the indigenous peoples/ethnic minorities in Southeast Asia. **3u.**

120 Directed Readings in Philippine History. Selected readings, discussions, and papers, based on primary sources, from the Spanish period to the present. **3u.**

140 The Philippines and the Third World. A general historical survey of selected Third World countries in Asia, Africa & Latin America. **3u.**

141 History of Latin America. A general historical survey of Latin American countries and their political, economic, social, and cultural developments. **3u.**

151 **History of East Asia.** History of China, Korea and Japan from their pre-historic origins to the present. **3u.**
152 **Modern South Asia.** The history of the Indian subcontinent from the break-up of the Mogul Empire through the establishment of the British raj to the Union of India and the establishment of the Republic of Pakistan. **3u.**
154 **History of Southeast Asia.** History of Southeast Asia from the pre-colonial to the post-colonial period. **3u.**
157 **Traditional Southeast Asia.** Southeast Asia from its prehistoric origins up to the advent of Western Colonialism. **3u.**
158 **Modern Southeast Asia.** Southeast Asia from the advent of Western Colonialism up to the present. **3u.**
168 **History of the United States.** Significant historical developments and forces that brought about the making of the United States with emphasis on its emergence as a highly industrialized nation and a neo-colonial power, and its impact and relations with the developed and underdeveloped countries including the Philippines. **3u.**
198 **Special Topics in History.** Prereq: SS. **3u. May be taken twice provided the topics are not identical.**
199 **Historical Methodology.** Principles, methods and problems of historical research and writing. **3u.**
200 **Bachelor's Thesis.** Prereq: Hist 199, Soc Sci 199, SS. **3u.**

Management Economics

143 **Managerial Economics.** The application of fundamental economic tools of analysis in management. Prereq: BA 101, Econ 101, 102. **3u.**
199.1 **Methods for Management Economics Research I.** Concepts, principles and processes of research as applied to management economics and formulation of research framework. Prereq: JS. **3u.**
199.2 **Methods for Management Economics Research II.** Formulation of research design and application of select methods in management economics research. Prereq: SS. **3u.**
200 **Thesis.** Prereq: Mgt Econ 199.2, SS. **3u.**

Philosophy

11 **Logic.** Techniques of formal deduction within the scope of sentential and predicate logic. **3u.**
110 **Ancient Philosophy.** Major philosophical ideas from pre-Socratics to the neo-Platonists. **3u.**
111 **Medieval Philosophy.** Major philosophical ideas from St. Augustine to William of Ockham. **3u.**
112 **Modern Philosophy.** Major philosophical ideas from the rationalists to the German and British idealists. **3u.**
113 **Contemporary Philosophy.** Major philosophical ideas from the logical positivists to the present. **3u.**
125 **Indian Philosophy.** Indian philosophy from the Vedic samhitas to the six Hindu darsanas. **3u.**
126 **Chinese Philosophy.** Philosophies of China, from Confucius to Hu Shih. **3u.**
130 **Metaphysics.** Nature of metaphysical inquiry, various categories of reality and world views. **3u.**
150 **Epistemology.** Problems concerning the sources, nature and validation of knowledge. **3u.**
170 **Philosophy of Man.** Philosophical theories of man. **3u.**
171 **Ethics.** Problems and theories of moral values. **3u.**
177 **Issues in Filipino Philosophy. 3u.**
194 **Directed Readings in Philosophy.** Exegesis of primary texts in the history of philosophy. Prereq: JS/COI. **3u.**
198 **Special Problems.** Prereq: SS. **3u. May be taken twice.**

Political Science

100 **Approaches to Understanding Political Phenomena.** An introduction to the various approaches to understanding and explaining political phenomena. **3u.**
150 **Philippine National and Local Administration.** Principles, practices and problems of public administration; historical, behavioral and institutional analysis and evaluation of the national and local bureaucracy and administration in the Philippines. Prereq: Pol Sci 100. **3u.**
151 **The Philippine Executive.** National executive in the Philippines; its nature and development. Prereq: Pol Sci 100. **3u.**
152 **Philippine Legislative System.** Structure and functions of the legislative system in the Philippines; legislative behavior and legislative process; statute and bill drafting; executive and judicial law-making. Prereq: Pol Sci 100. **3u.**
153 **The Philippine Judicial System.** Role of courts and other law enforcement agencies in the administration of justice. Prereq: Pol Sci 100. **3u.**
160 **Society, Politics and Government.** Society as the matrix of politics; political power and leadership; patterns of decision-making; political modernization and development. Prereq: Pol Sci 100. **3u.**
161 **Political Parties and Interest Groups.** The types and structures of political parties and interest groups; their function in the political system; their strategy and tactics, particularly in aggregating and articulating interests and controlling governmental power and public policy. Prereq: Pol Sci 100. **3u.**
163 **Political Behavior: Processes and Movements.** Belief systems; nature and development of political processes and movements. Prereq: Pol Sci 160/COI. **3u.**
171 **American Government and Politics.** Theory and dynamics of the government and politics of the US. Prereq: Pol Sci 100. **3u.**
172 **Government and Politics of Selected European States.** Political systems of selected European states and the European Union. Prereq: Pol Sci 100. **3u.**
177 **Government and Politics of East Asia.** Political systems of Japan, the People's Republic of China, North Korea, Nationalist China and the Republic of South Korea. Prereq: Pol Sci 100. **3u.**
178 **Government and Politics in Southeast Asia.** Political systems of Burma, Thailand, Laos, Cambodia, Vietnam, Malaysia, Singapore and Indonesia. Prereq: Pol Sci 100. **3u.**
179 **Government and Politics of South Asia.** Political systems of India, Pakistan, Bangladesh, Sri Lanka, and Nepal. Prereq: Pol Sci 100. **3u.**
182 **International Politics.** Interplay on the political forces in the international system; national power, national interest

and goals, and settlement of international disputes. Prereq: Pol Sci 100. **3u.**

183 International Organization. Development, structures, functions, and problems of international organizations. Prereq: Pol Sci 182. **3u.**

185 Public International Law. Nature, development, sources, principles and problems of international law and its role in the development of a world community; selected cases. Prereq: Pol Sci 182. **3u.**

186 Private International Law. Selected cases involving citizens or juridical entities of different states. Prereq: Pol Sci 182. **3u.**

190 Practicum. Special problems in political science. Prereq: JS. **3u.**

192 Ancient & Medieval Political Theory. Political thought from Plato to Machiavelli. Prereq: SS. **3u.**

193 Modern Political Theory. Political thought after Machiavelli, with emphasis on the contemporary. Prereq: SS. **3u.**

194 American Political Theory. Political & social ideas of leading American statesmen, publicists, & other thinkers from the colonial period of the present & their influence upon American democracy. Prereq: Pol Sci 171/COI. **3u.**

197 Directed Study in Political Science. A student-initiated reading &/or research course, taken with a professor of the student's choice who is able & willing to direct either more extensive or more intensive study of a special topic in political science. Prereq: SS. **3u.**

198 Special Topics. Prereq: SS. **3u. May be repeated once.**

200 Bachelor's Thesis. Prereq: Pol Sci 198, Soc Sci 199. **3u.**

Psychology

11 Principles of Psychology. Principles of the science of psychology. **3u.**

101 General Psychology. The empirical and conceptual foundations of psychology in its main fields. Primarily for students who desire an intensive preparation for the more advanced courses in psychology. **3u.**

115 Experimental Psychology. Principles of experimental inference; experimental design in behavior research. Prereq: Soc Sci 101. 9h (3 lec, 6 lab). **5u.**

135 Perception. Principles of perception in the major sense modalities; methods of investigation. Prereq: Psych 11/101, 115/written COI. **3u.**

140 Behavior Analysis. Basic behavioral process in terms of experimental learning theory. Prereq: Psych 11/101/ written COI. **3u.**

145 Psychology of Language. Prereq: Psych 140/COI. **3u.**

150 Personality. Systematic approaches to the understanding of personality formation and dynamics. Prereq: Psych 11/101/written COI. **3u.**

155 Abnormal Behavior. Prereq: Psych 140, 150/COI. **3u.**

160 Physiological Psychology. Prereq: SS. 6h (3 lec, 3 lab). **4u.**

160.1 Physiological Psychology Laboratory. Prereq/Coreq: Psych 160 (may be taken simultaneously with Psych 160). 6h (lab). **2u.**

162 Psychological Measurement. Theory and applications. Prereq: Stat course, Psych 115, 150/COI. 6h (3 lec, 3 lab). **4u.**

163 Psychological Interview. Prereq: Psych 150/COI. **3u.**

171 Child Psychology. A systematic study of the behavior of normal children with emphasis on socialization & personality development. Prereq: Psych 150/COI. **3u.**

172 Adolescent Psychology. Human development during the period of adolescence in the areas of physical, social, cognitive, emotional and moral development. Prereq: Psych 150. **3u.**

180 Social Psychology. Experimental investigation of group behavior, emotions, motivations & personality dynamics in social behavior & social learning, & perception in small groups & in cultural contexts. Prereq: Psych 150/COI. **3u.**

181 Special Topics in Group Dynamics. 3u.

182 Filipino Psychology. Concepts and methods in the field of culture and psychology, giving meaning to psychological reality based on the language and worldview of the Filipino. Prereq: Psych 150, 180. **3u.**

195 Special Topics in Psychology. Prereq: SS. **3u. May be taken twice provided the topics are not identical.**

200 Bachelor's Thesis. Prereq: Soc Sci 199. **3u.**

Social Science

100 Historical Context of the Social Sciences. Historical context of the emergence of the social sciences in Western history and in the Philippine setting. **3u.**

101 Fundamental Statistics for the Social Sciences. Basic statistical concepts & tools for social science measurements. **4u.**

171 Ethical Issues in the Social Sciences. Ethical issues in social inquiry and practice. **3u.**

180 Epistemological Issues in the Social Sciences. Prereq: SS. **3u.**

195 Survey Research Methods. Survey research & the construction, application & evaluation of survey instruments. Prereq: Soc Sci 101. **3u.**

197 Ontology of the Social. Theories and conceptions of the objects of social-scientific theorizing, including, among others, action, subjectivity, institution, social system, social structure, societal collectivity, etc. Prereq: JS. **3u.**

198 Special Topics. Prereq: SS. **3u. May be repeated once.**

199 Seminar on Social Science Methodology. Methodological issues in social science research. Prereq: Soc Sci 101/ Psych 110. **3u.**

Sociology

101 General Sociology. Theoretical and conceptual concerns of the field of sociology and the various techniques in the study of social realities. **3u.**

102 Social Organization. Analysis of the main forms of social organization in simple & complex societies; principles of integration & disintegration of social groups. Prereq: Socio 101/equi. **3u.**

109 Comparative Social Structure. Prereq: Socio 101/ equivalent. **3u.**

114 The Philippine Social System. Analysis of the social structure of Philippine society. Prereq: Socio 101/ equivalent. **3u.**

119 Industrial Sociology. Formal & informal organization in the industrial setting; analysis of work groups & their relations to the community & the larger society. Prereq: Socio 101/equi. **3u.**

125 Sociology of Religion. Analysis of forms of religious beliefs & commitments; examination of religious phenomena as products of society. Prereq: Socio 101/ equi. **3u.**

126 Urban Sociology. Comparative studies of urban communities; nature & consequences of urbanization. Prereq: Socio 101/equi. **3u.**

132 Sociology of Deviant Behavior. Analysis of departures from model societal patterns & the relevant group processes including mechanisms of social control. Prereq: Socio 101/ equivalent. **3u.**

142 Sociology of Mass Communication. Processes of opinion formation & change in relation to personality & social structure; analysis of flow of public communications through society & impact of mass communication on particular audiences. Prereq: Socio 101/ equivalent. **3u.**

153 Sociology of Development. The nature and problems of development as a form of social change. Prereq: Socio 101/equivalent, Socio 195. **3u.**

160 Society & Population. Description & analysis of population aggregates; world population growth, population problems, & theories; the inter-relation of population & social structure. Prereq: Socio 101/equi. **3u.**

195 Sociological Theories. Background and trends in sociological thought from Comte to the present. Prereq: Socio 101/equivalent. **3u.**

198 Special Topics in Sociology. Prereq: Socio 101/ equivalent. **3u.**

199 Methods of Sociological Research. Survey of & introduction to various methods of sociological research. Prereq: Socio 195, SS 101. **3u.**

Speculative Thought

Readings in Speculative Thought. Major philosophical ideas in the writings of great philosophers. **3u.**

GRADUATE COURSES

Management

201 Fundamentals of Management. Basic concepts, theories and practices of management and the interplay between the external environment (international, economic, politico-legal, socio-cultural, technological, natural/physical) and the internal management of organizations. **3u.**

202 Organizational Behavior. Concepts, theories, models, processes, approaches and practices in describing, understanding and explaining the dynamics of behavior, interactions and relationships in organizations. **3u.**

203 Managerial Economics. Economic analysis of private, public and non-profit organizations; includes macroeconomic theory and policy as context for organizational decision-making. **3u.**

220 Managerial Accounting & Control. Concepts & principles of financial and management accounting as applied in private and public organizations, with emphasis on the issues of accounting information for managerial planning and control. **3u.**

222 Financial Management. Introduction to finance theory and its application in organizations; includes the management of short-term and long-term assets; management of sources of short-term and long-term finance; financial analysis and planning, and capital structure decisions of organizations. Prereq: MM 203 and 220. **3u.**

230 Marketing Management. The management of the marketing function as applied to private and public organizations; the nature and dynamics of marketing, the major marketing problems confronting management in adapting to demand conditions, the development of pricing strategies for new and existing products, and the use of marketing research and other activities of marketing management. Prereq: MM 203. **3u.**

240 Operations Management. Systematic direction, control and management of the processes that transform inputs into finished goods and services; applicable to both profit and non-profit, manufacturing and service organizations, and functional area or industry at the strategic and tactical levels; includes operations management philosophies. Prereq: MM 203. **3u.**

250 Human Resource Management. Management of selection, recruitment and development of human resource in organization; organization development concepts and uses. Prereq: MM 240. **3u.**

291.1 Strategic Management I. Integration of the tool and functional area courses to develop a holistic management point of view for strategy formulation, implementation, evaluation and control. Prereq: MM 222, 230, 240. **3u.**

291.2 Strategic Management II. Appraisal of an organization's resources, plans, structure and governance and the assessment of the organization's macro- and industry/ sector environment as basis for strategic action. Prereq: MM 291.1. **3u.**

292 Policy Making and Program Management. Planning, implementation and evaluation of policy and development programs/projects as applied in public and private organizations. **3u.**

293 Development Management. Concepts, theories, models, approaches, strategies and practices of development as applied in the micro (organizational) and macro (national) levels of analysis. (crosslisted with SDS 201). **3u.**

294 Management of Knowledge and Information Systems. Identification, evaluation, modification and integration of information flows and technology into the management of knowledge and information systems. Prereq: MM 240. **3u.**

295 Seminar in Management. 3u.

296 Enterprise Planning and Development. Establishment, management and evaluation of any type of organization using the entrepreneurial approach. Prereq: MM 222, 230, 240. **3u.**

298 Special Topics in Management. Prereq: COI. **3u. May be taken twice with different topics.**

299 Applied Management Research. Supervised undertaking of actual research work using quantitative and/or

qualitative methods and design, focusing on relevant areas in management in actual organizational setting. The nature of work may be model formulation, empirical validation, policy assessment and other related undertakings. **3u.**

Social and Development Studies

201 Development Theory & Practice. A survey of theories of sociocultural change & their relation to development policy, planning & implementation. (crosslisted with MM 293). **3u.**

202 The Political Economy of Developing Countries. The study of how market forces and political processes and structures influence each other and together guide and shape the behavior of individuals towards the satisfaction of individual and collective wants in the context of developing countries. **3u.**

230 Historical Perspectives on Development. The historical context for & alternative interpretations of development. **3u.**

265 Seminar in Community-Environment Relations. Analysis of the relationship between communities & their environments. **3u.**

271 Ethical Issues in Development. Theories and principles, thoughts and reflections about ethics and morality and how they influence and are influenced by the development process. **3u.**

278 Practicum in Development Work. 3u.

279 Research Seminar in Development. 3u.

290 Social Science Concepts. Fundamental concepts in the social sciences .i.e. concepts referring to the recurrent and significant aspects of social reality, indispensable to the practice of each and every discipline in the social sciences, and present in the main social theories that have given shape to the social sciences. **3u.**

292 History and Philosophy of the Social Sciences. The emergence of metatheories of social science in their social context through time and as related to the social science disciplines, their various theories, domains and methodologies. **3u.**

298 Special Topics in Development. 3u. May be taken for a maximum of 9 units.

299 Research in the Social Sciences. Problem formulation and strategies in social research. **3u.**

299.1 Qualitative Research Methods. Basic concepts, principles, techniques and issues in the collection and analysis of qualitative data. Prereq: SDS 299. **3u.**

299.2 Quantitative Research Methods. Basic concepts, principles, techniques and issues in the collection and analysis of quantitative data. Prereq: SDS 299. **3u.**

300 Thesis. 6u.

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