UNIVERSITY OF NORTH ALABAMA BIOLOGY 363 VASCULAR PLANTS LECTURE SYLLABUS – FALL 2022

INSTRUCTOR

DR. FRANCIS J. MENAPACE

OFFICE:	381 SCIENCE	BUILDING	
OFFICE HOURS:	MONDAY -	2:00 ->	4:00
	TUESDAY -	1:00 ->	3:00
	WEDNESDAY -	2:00 ->	4:00
	THURSDAY -	9:00 ->	11:00

COMMUNICATION

<u>OFFICE PHONE</u>: 765 - 4495 OFFICE E-MAIL: fjmenapace@una.edu *!!!DO NOT E-MAIL USING CANVAS!!!*

-- THE OFFICIAL METHOD OF COMMUNICATION AT UNA IS UNA PORTAL, WITH EMPHASIS PLACED ON UNIVERSITY E-MAIL

TEACHING WEBSITE

<u>WEBSITE</u>: http://www.buildingthepride.com/faculty/fjmenapace/ <u>USER NAME</u>: fjmstudent <u>PASSWORD</u>: studentfjm

COURSE CONTENT

- -- A COMPREHENSIVE SURVEY OF "TRUE PLANT" PHYLOGENY WITH PARTICULAR EMPHASIS UPON VASCULAR PLANT CYTOLOGY, ANATOMY, MORPHOLOGY, AND REPRODUCTION
- -- STUDENT SHOULD ACQUIRE SUFFICIENT BOTANICAL KNOWLEDGE TO EXCEL AT THE GRADUATE LEVEL

COURSE PREREQUISITES

-- BIOLOGY 111 & 112 OR EQUIVALENT

TEXTBOOK

-- BIOLOGY OF PLANTS - RAVEN ET AL. - 8TH EDITION

ATTENDANCE POLICY

- -- DAILY ATTENDANCE REQUIRED
- -- ATTEND CLASS ON TIME
- -- SIGNED ATTENDANCE SHEET = PRESENT
- -- SIGN IN OTHERS = <u>ACADEMIC DISHONESTY</u>

!!!LOCKED DOOR POLICY!!!

CLASS ROOM DECORUM

- -- FOOD AND BEVERAGES NOT PERMITTED DURING CLASS
- -- COMPUTERS NOT PERMITTED DURING CLASS
- -- CELL PHONES NOT PERMITTED DURING CLASS

!!!TURN PHONES OFF!!! !!!PLACE IN BOOKBAG!!!

PERSONAL CONDUCT

- -- APPROPRIATE BEHAVIOR WILL BE <u>DEMANDED</u> DURING LECTURE
- -- PLEASE <u>DO NOT</u> CONDUCT PERSONAL CONVERSATIONS DURING LECTURE

TESTING POLICY

---LECTURE EXAMS---

- -- 3 LECTURE EXAMS 100 PTS EACH
- -- OBJECTIVE QUESTIONS EG MULTIPLE CHOICE, TRUE AND FALSE

---TENTATIVE EXAM DATES---

-- LECTURE EXAM #1 - LATE SEPTEMBER -- LECTURE EXAM #2 - EARLY NOVEMBER -- LECTURE EXAM #3 - FINALS WEEK / COMPREHENSIVE FINAL

---LECTURE QUIZZES---

-- OBJECTIVE QUESTIONS EG MULTIPLE CHOICE, TRUE AND FALSE, FILL-IN

---MAKE-UP EXAMS & QUIZZES---

-- MAKE-UP EXAMS & QUIZZES - NOT POSSIBLE

- -- EXCEPTIONS:
 - (1) FAMILY DEATH
 - (2) DOCUMENTED ILLNESS

---EXTRA CREDIT---

-- EXTRA CREDIT - <u>NOT POSSIBLE</u>

ACADEMIC DISHONESTY

!!!DISHONESTY WILL NOT BE TOLERATED!!! !!!EXAM MISCONDUCT = COURSE FAILURE!!!

---ACADEMIC DISHONESTY STATEMENT---

STUDENTS OF THE UNIVERSITY ACADEMIC COMMUNITY ARE EXPECTED TO ADHERE TO COMMONLY ACCEPTED STANDARDS OF ACADEMIC HONESTY. ALLEGATIONS OF ACADEMIC DISHONESTY CAN REFLECT POORLY ON THE SCHOLARLY REPUTATION OF THE UNIVERSITY INCLUDING STUDENTS, FACULTY AND GRADUATES. INDIVIDUALS WHO ELECT TO COMMIT ACTS OF ACADEMIC DISHONESTY SUCH AS CHEATING, PLAGIARISM, OR MISREPRESENTATION WILL BE SUBJECT TO APPROPRIATE DISCIPLINARY ACTION IN ACCORDANCE WITH UNIVERSITY POLICY.

INCIDENTS OF POSSIBLE STUDENT ACADEMIC DISHONESTY WILL BE ADDRESSED IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:

- 1. THE INSTRUCTOR IS RESPONSIBLE FOR INVESTIGATING AND DOCUMENTING ANY INCIDENT OF ALLEGED ACADEMIC DISHONESTY THAT OCCURS UNDER THE INSTRUCTOR'S PURVIEW.
- 2. IF THE INSTRUCTOR FINDS THE ALLEGATION OF ACADEMIC DISHONESTY TO HAVE MERIT, THEN THE INSTRUCTOR, AFTER A DOCUMENTED CONFERENCE

WITH THE STUDENT, WILL DEVELOP A PLAN FOR DISCIPLINARY ACTION. IF THE STUDENT AGREES TO THIS PLAN, THEN BOTH INSTRUCTOR AND STUDENT WILL SIGN THE AGREEMENT. THE FACULTY MEMBER WILL FORWARD A COPY OF THE SIGNED AGREEMENT TO THE OFFICE OF STUDENT CONDUCT FOR RECORD-KEEPING PURPOSES.

- 3. IF THE STUDENT DISAGREES WITH THE INSTRUCTOR'S PROPOSED PLAN FOR DISCIPLINARY ACTION AND WISHES TO TAKE FURTHER ACTION, HE/SHE IS RESPONSIBLE FOR SCHEDULING A MEETING WITH THE CHAIR OF THE DEPARTMENT WHERE THE COURSE IS HOUSED TO APPEAL THE PROPOSED DISCIPLINARY PLAN. THE DEPARTMENT CHAIR SHALL MEDIATE THE MATTER AND SEEK A SATISFACTORY JUDGMENT ACCEPTABLE TO THE FACULTY MEMBER BASED ON MEETINGS WITH ALL PARTIES. IF A RESOLUTION IS REACHED, THE DISPOSITION OF THE CASE WILL BE FORWARDED TO THE OFFICE OF STUDENT CONDUCT. IF A RESOLUTION AT THE DEPARTMENTAL LEVEL IS NOT REACHED AND THE STUDENT WISHES TO TAKE FURTHER ACTION, HE/SHE IS RESPONSIBLE FOR SCHEDULING A MEETING WITH THE DEAN OF THE COLLEGE WHERE THE COURSE IS HOUSED TO APPEAL THE PROPOSED DISCIPLINARY PLAN. THE COLLEGE DEAN SHALL MEDIATE THE MATTER AND SEEK A SATISFACTORY JUDGMENT ACCEPTABLE TO THE FACULTY MEMBER BASED ON MEETINGS WITH ALL PARTIES. IF A RESOLUTION IS REACHED, THE DISPOSITION OF THE CASE WILL BE FORWARDED TO THE OFFICE OF STUDENT CONDUCT. IF A RESOLUTION AT THE COLLEGE LEVEL IS NOT REACHED AND THE STUDENT WISHES TO TAKE FURTHER ACTION, HE/SHE IS RESPONSIBLE FOR SCHEDULING A MEETING WITH THE VICE PRESIDENT FOR ACADEMIC AFFAIRS AND PROVOST (VPAA/P) TO APPEAL THE PROPOSED DISCIPLINARY PLAN. THE VPAA/P SHALL MEDIATE THE MATTER AND SEEK A SATISFACTORY JUDGMENT ACCEPTABLE TO THE FACULTY MEMBER BASED ON MEETINGS WITH ALL PARTIES. AFTER REVIEWING ALL DOCUMENTATION, THE VPAA/P MAY, AT HIS/HER DISCRETION, CHOOSE EITHER TO AFFIRM THE PROPOSED ACTION, TO REFER THE CASE TO THE OFFICE OF STUDENT CONDUCT FOR FURTHER REVIEW, OR TO DISMISS THE MATTER DEPENDING ON THE MERITS OF THE CASE. THE FINAL DISPOSITION OF THE CASE WILL BE DISSEMINATED TO APPROPRIATE PARTIES, INCLUDING THE OFFICE OF STUDENT CONDUCT.
- 4. IF A STUDENT IS ALLOWED ACADEMIC PROGRESSION BUT DEMONSTRATES A REPEATED PATTERN OF ACADEMIC DISHONESTY, THE VPAA/P MAY, AFTER CONSULTATION WITH THE OFFICE OF STUDENT CONDUCT, ASSIGN ADDITIONAL PENALTIES TO THE STUDENT, INCLUDING REMOVAL FROM THE UNIVERSITY.

EVALUATION

-- LECTURE = 3/4 COURSE GRADE -- LAB = 1/4 COURSE GRADE ---GRADE SCALE--- $90\% \rightarrow 100\% = A$ $80\% \rightarrow 89\% = B$ $70\% \rightarrow 79\% = C$ $60\% \rightarrow 69\% = D$ $00\% \rightarrow 59\% = F$

!!!WELL-BEHAVED STUDENTS WILL RECEIVE BENEFIT OF ANY DOUBT!!!

ASSIGNMENTS

-- MAINTAIN TEXTBOOK READINGS IN ACCORDANCE WITH LECTURE PROGRESS

LEARNING DISABILITY

-- ANY DISABILITY SHOULD BE BROUGHT TO YOUR INSTRUCTOR'S ATTENTION IMMEDIATELY; EVERY EFFORT WILL BE MADE TO ACCOMMODATE THE STUDENT

---EQUAL OPPORTUNITY STATEMENT---

IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND SECTION 504 OF THE REHABILITATION ACT OF 1973, THE UNIVERSITY OFFERS REASONABLE ACCOMMODATIONS TO STUDENTS WITH ELIGIBLE DOCUMENTED LEARNING, PHYSICAL AND/OR PSYCHOLOGICAL DISABILITIES. UNDER TITLE II OF THE AMERICANS WITH DISABILITIES ACT (ADA) OF 1990, SECTION 504 OF THE REHABILITATION ACT OF 1973, AND THE AMERICANS WITH DISABILITIES AMENDMENT ACT OF 2008, A DISABILITY IS DEFINED AS A PHYSICAL OR MENTAL IMPAIRMENT THAT SUBSTANTIALLY LIMITS ONE OR MORE MAJOR LIFE ACTIVITIES AS COMPARED TO AN AVERAGE PERSON IN THE POPULATION. IT IS THE RESPONSIBILITY OF THE STUDENT TO CONTACT DISABILITY SUPPORT SERVICES TO INITIATE THE PROCESS TO DEVELOP AN ACCOMMODATION PLAN. THIS ACCOMMODATION PLAN WILL NOT BE APPLIED RETROACTIVELY. APPROPRIATE, REASONABLE ACCOMMODATIONS WILL BE MADE TO ALLOW EACH STUDENT TO MEET COURSE REQUIREMENTS, BUT NO FUNDAMENTAL OR SUBSTANTIAL ALTERATION OF ACADEMIC STANDARDS WILL BE MADE. STUDENTS NEEDING ASSISTANCE SHOULD CONTACT DISABILITY SUPPORT SERVICES (256-765-4214).

TITLE IX

-- ANY INCIDENT COVERED UNDER TITLE IX WILL BE IMMEDIATELY FORWARDED TO THE UNIVERSITY TITLE IX COORDINATOR

---TITLE IX STATEMENT---

THE UNIVERSITY OF NORTH ALABAMA HAS AN EXPECTATION OF MUTUAL RESPECT. STUDENTS, STAFF, ADMINISTRATORS, AND FACULTY ARE ENTITLED TO A WORKING ENVIRONMENT AND EDUCATIONAL ENVIRONMENT FREE OF DISCRIMINATORY HARASSMENT. THIS INCLUDES SEXUAL VIOLENCE, SEXUAL HARASSMENT, DOMESTIC AND INTIMATE PARTNER VIOLENCE, STALKING, GENDER-BASED DISCRIMINATION, DISCRIMINATION AGAINST PREGNANT AND PARENTING STUDENTS, AND GENDER-BASED BULLYING AND HAZING.

FACULTY AND STAFF ARE REQUIRED BY FEDERAL LAW TO REPORT ANY OBSERVATIONS OF HARASSMENT (INCLUDING ONLINE HARASSMENT) AS WELL AS ANY NOTICE GIVEN BY STUDENTS OR COLLEAGUES OF ANY OF THE BEHAVIORS NOTED ABOVE. RETALIATION AGAINST ANY PERSON WHO REPORTS DISCRIMINATION OR HARASSMENT IS ALSO PROHIBITED. UNA'S POLICIES AND REGULATIONS COVERING DISCRIMINATION AND HARASSMENT MAY BE ACCESSED AT <u>www.una.edu/titleix</u>. IF YOU HAVE EXPERIENCED OR OBSERVED DISCRIMINATION OR HARASSMENT, CONFIDENTIAL REPORTING RESOURCES CAN BE FOUND ON THE WEBSITE OR YOU MAY MAKE A FORMAL COMPLAINT BY CONTACTING THE TITLE IX COORDINATOR AT 256-765-4223.

!!!HARASSMENT WILL NOT BE TOLERATED!!! !!!DISCRIMINATION WILL NOT BE TOLERATED!!!

BIOLOGY 363 VASCULAR PLANTS TEXTBOOK READINGS

PG 001-015 --- BOTANY INTRODUCTION PG 001-009 --- EVOLUTIONARY ORIGIN OF LIFE PG 257-259 --- PROKARYOTE CYTOLOGY PG 259-261 --- PROKARYOTE CELL CYCLE PG 261-270 --- PROKARYOTE METABOLISM PG 263-267 --- PHYLUM CYANOPHYTA: CYANOBACTERIA & GREEN BACTERIA PG 039-041 --- PROKARYOTIC CELLS VS EUKARYOTIC CELLS PG 246-248 --- EVOLUTIONARY ORIGIN OF EUKARYOTES PG 246-248 --- EVOLUTIONARY ORIGIN OF PLASTIDS PG 038-062 --- EUKARYOTE PLANT CYTOLOGY PG 062-071 --- EUKARYOTE PLANT CELL CYCLE MITOSIS PG 154-159 --- EUKARYOTE PLANT CELL CYCLE MEIOSIS PG 250-255 --- SEXUAL LIFE CYCLES PG 249-250 --- KINGDOM PLANTAE PG 345-358 --- PHYLUM CHLOROPHYTA: GREEN ALGAE PG 348-351 --- CLASS CHLOROPHYCEAE: CHLOROPHYTES PG 351-353 --- CLASS ULVOPHYCEAE: ULVOPHYTES PG 353-358 --- CLASS CHAROPHYCEAE: CHAROPHYTES

!!!LECTURE EXAM #1!!!

PG	372-373	 EMBRYOPHYTES DEFINED "LAND PLANTS"
PG	391-398	 TRACHEOPHYTES DEFINED
PG	538-557	 TRACHEOPHYTE HISTOLOGY
PG	395-396	 TRACHEOPHYTE STEM ANATOMY & VASCULAR STELES
PG	396-397	 TRACHEOPHYTE LEAF MICROPHYLL VS MEGAPHYLL
PG	397-398	 TRACHEOPHYTE REPRODUCTION
PG	415	 TRACHEOPHYTE EUSPORANGIUM VS LEPTOSPORANGIUM
PG	397-398	 TRACHEOPHYTE HOMOSPOROUS VS HETEROSPOROUS
PG	389-402	 PTERIDOPHYTES DEFINED
PG	402-403	 PHYLUM RHYNIOPHYTA: RHYNIOPHYTES
PG	403	 PHYLUM ZOSTEROPHYLLOPHYTA: ZOSTEROPHYTES
PG	403-409	 PHYLUM LYCOPODIOPHYTA: LYCOPHYTES
PG	403	 PHYLUM TRIMEROPHYTOPHYTA: TRIMEROPHYTES
PG	409-429	 PHYLUM PTERIDOPHYTA: FERNS
PG	415-419	 CLASS OPHIOGLOSSOPSIDA: GRAPE-FERNS & WHISK FERNS

PG	415-419	 CLASS	EQUISETOPSIDA:	EQUIPHYTE FERNS
PG	419-428	 CLASS	MARATTIOPSIDA:	EUSPORANGIATE TREE-FERNS
PG	419-428	 CLASS	PTERIDOPSIDA:	LEPTOSPORANGIATE FERNS

!!!LECTURE EXAM #2!!!

PG	432-433	 PHYLUM PROGYMNOSPERMOPHYTA: PROGYMNOSPERMS
PG	430-432	 SPERMATOPHYTES DEFINED
PG	430-432	 SEED EVOLUTION
PG	433-437	 GYMNOSPERMS DEFINED
PG	448-450	 PHYLUM CYCADOPHYTA: CYCADS
PG	450-453	 PHYLUM GINKGOPHYTA: GINKGO
PG	437-448	 PHYLUM PINOPHYTA: CONIFERS
PG	453-455	 PHYLUM GNETOPHYTA: GNETOPHYTES
PG	457-465	 ANGIOSPERMS DEFINED
PG	477-500	 ANGIOSPERM EVOLUTION
PG	460	 PHYLUM MAGNOLIOPHYTA: DICOTS VS MONOCOTS
PG	564-569	 PHYLUM MAGNOLIOPHYTA: ROOT ANATOMY PRIMARY GROWTH
PG	569-571	 PHYLUM MAGNOLIOPHYTA: ROOT ANATOMY SECONDARY GROWTH
PG	579-588	 PHYLUM MAGNOLIOPHYTA: STEM ANATOMY PRIMARY GROWTH
PG	614-626	 PHYLUM MAGNOLIOPHYTA: STEM ANATOMY SECONDARY GROWTH
PG	624	 PHYLUM MAGNOLIOPHYTA: STEM MOROPHOLOGY
PG	592-599	 PHYLUM MAGNOLIOPHYTA: LEAF ANATOMY
PG	592-593	 PHYLUM MAGNOLIOPHYTA: LEAF MOROPHOLOGY
PG	460-465	 PHYLUM MAGNOLIOPHYTA: FLOWER MOROPHOLOGY & ANATOMY
PG	465-475	 PHYLUM MAGNOLIOPHYTA: REPRODUCTION
PG	492-494	 PHYLUM MAGNOLIOPHYTA: FRUIT MORPHOLOGY & ANATOMY

!!!LECTURE EXAM #3!!!

!!!COMPREHENSIVE FINAL!!!

BIOLOGY 363 VASCULAR PLANTS STUDY TIPS

---DURING LECTURE---

- -- ATTEND LECTURE DAILY
- -- ATTEND LECTURE ON TIME
- -- READ TEXT PRIOR TO LECTURE
- -- TAKE YOUR OWN NOTES
- -- PARTICIPATE CONSTRUCTIVELY DURING LECTURE

---POST LECTURE---

- -- REVIEW NOTES AFTER EACH LECTURE
- -- UTILIZE INSTRUCTOR'S OFFICE HOURS
- -- REVIEW NOTES ENTIRELY OVER THE WEEKEND

---EXAM PREPARATION----

-- STUDY ALONE

-- GIVE 12+ HARD STUDY HOURS

!!!COLLEGIATE STUDY DISCIPLINE!!!

BIOLOGY 363 VASCULAR PLANTS ONLINE LECTURE POWERPOINT SLIDES

GO TO: http://www.buildingthepride.com/faculty/fjmenapace/-ENTER

GO TO: BIOLOGY 363 - ENTER

GO TO: ANY LINK LISTED BELOW - ENTER

BI-363-P-01 BI-363-P-02 BI-363-P-03 ETC

!!!PLEASE BE PATIENT!!!

!!!IT MAY TAKE SEVERAL MINUTES TO DOWNLOAD FILE!!!

BIOLOGY 363 VASCULAR PLANTS PHYLA CLASSIFICATION

- -- DOMAIN EUBACTERIA
 - -- KINGDOM MONERA
 - -- PHYLUM:

-- CYANOPHYTA

- BLUE-GREEN BACTERIA
 - GREEN BACTERIA
- -- DOMAIN EUKARYA
 - -- KINGDOM PLANTAE
 - -- PHYLUM:

 CHLOROPHYTA	-	GREEN ALGAE
 RHYNIOPHYTA	-	RHYNIOPHYTES
 ZOSTEROPHYLLOPHYTA	-	ZOSTEROPHYTES
 LYCOPODIOPHYTA	-	LYCOPHYTES
 TRIMEROPHYTOPHYTA	-	TRIMEROPHYTES
 PTERIDOPHYTA	-	FERNS
 PROGYMNOSPERMOPHYTA	-	PROGYMNOSPERMS
 PTERIDOSPERMOPHYTA	_	SEED FERNS
 CYCADOPHYTA	_	CYCADS
	-	
		CYCADS
 GINKGOPHYTA	-	CYCADS GINKGO
 GINKGOPHYTA PINOPHYTA	-	CYCADS GINKGO CONIFERS
 GINKGOPHYTA PINOPHYTA GNETOPHYTA		CYCADS GINKGO CONIFERS GNETOPHYTES

GEOLOGIC TIME SCALE

ERA	PERIOD	DURATION					
	QUATERNARY	3	→	PI	RESENT		
CENOZOIC	-	65					
	CRETACEOUS	140	→	65	МҮА		
	JURASSIC	195	\rightarrow	140	МҮА		
MESOZOIC	TRIASSIC	225	>	195	МҮА		
	PERMIAN	280	→	225	МХА		
	PENNSYLVANIAN						
	MISSISSIPPIAN						
	DEVONIAN	395	\rightarrow	345	МҮА		
	SILURIAN	435	\rightarrow	395	МҮА		
	ORDOVICIAN	500	\rightarrow	435	МХА		
PALEOZOIC	CAMBRIAN	570	→	500	МҮА		
PRECAMBRIAN		BEF	ORE	570	МҮА		
STEWART & RC	THWELL 1993						
MYA = MILLION	N YEARS AGO						
MISSISSIPPIAN	N + PENNSYLVANIA	N = C2	ARB	ONIF	EROUS		

!!!KNOW GEOLOGIC TIME SCALE FOR ALL EXAMS!!!

BIOLOGY 363 VASCULAR PLANTS ON LINE LECTURE GRADES LABORATORY GRADES

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GO TO: PROVIDED STUDENT NUMBER

!!!PLEASE BE PATIENT!!!

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!!!LOST HANDOUT: 10 PT PENALTY!!!