Parent and Family Orientation 2016

The College of Natural and Agricultural Sciences

Prof. Michael McKibben

Divisional Dean of Student Academic Affairs
Welcome to UCR!

Congratulations on becoming part of our CNAS Family!
What does the Divisional Dean of Student Academic Affairs do?

- Monitor the academic status and progress of all undergraduates in the college.
- Oversee undergraduate recruiting, orientation, academic advising, enrollment management and student success programs for the college.
- Develop and enforce undergraduate policies and regulations, and grant exceptions to those when warranted.
- Faculty advisor for all Undeclared CNAS students.
Undergraduate Academic Advising Center (UAAC)

Working with the undergraduate faculty advisors in the majors, our 20 professional academic advisors help ~5,000 undergraduate students to:

- understand and follow University policies and regulations.
- stay on path to their degree.
- explore and assess their strengths and challenges.
- strive for their best possible performance.
- find major options that best suit their interests and talents.
Undergraduate Majors in CNAS

Life Sciences (3,330)
- Biochemistry, Biology, Cell, Molecular & Developmental Biology (CMDB), Entomology, Microbiology, Neuroscience, Plant Biology

Mathematical Sciences (495)
- Mathematics, Mathematics for Teachers in Secondary Schools, Statistics

Physical Sciences (605)
- Chemistry, Environmental Sciences, Geology, Geophysics, Physics

Undeclared (695)
- General, Life Sciences, Mathematical, Physical
Size of Majors Fall 2015

- Biology: 34%
- Biochemistry: 14%
- Neuroscience: 8%
- Mathematics: 7%
- Undeclared General: 5%
- Undeclared Life: 5%
- Cell Mol Dev Biology: 5%
- Chemistry: 4%
- Environmental Sciences: 3%
- Microbiology: 2%
- Undeclared Math: 2%
- Math for Sec Sch: 2%
- Statistics: 1%
- Plant Biology: 1%
- Entomology: 1%
- Geophysics: <1%

5,060 students
Your student’s first steps along the pathway to their CNAS degree come up tomorrow:

- **Getting into the right Math course** – Math is the language of science. Scientists are never “done” with Math, so they have to learn to master it. Success in all of their subsequent CNAS courses depends on it.

- **Getting into the right English course** – they have to be able to comprehend and communicate the ideas of Math and Science.
Math and English Exam Placements

While your student’s excellent grades got them into the University of California, whether or not they are really ready for Freshmen Calculus and English Composition at UCR depends on their scores on:

- AP/IB exams and community college transfer credits
- Mathematics Advisory Exam (MAE)
- Analytical Writing Placement Exam (AWPE)
3 Possible Math Placements:

- **Calculus-ready**: Math 9A, 9B, or 9C
- **Pre-Calculus**: Math 5 (review) or 6A (instruct)
- **Intermediate Algebra**: ARC 35

To reduce **time-to-graduation**:

**Students who are not Calculus-ready** should try to take Math 5 or Math 6A this summer.

**Students who are not Pre-Calculus-ready** must pass ARC 35 at UCR either this Summer or Fall, in order to remain in CNAS.
3 Possible English Placements:

- **English 1-ready**: Engl 1PA, 1A, 1B, or 1C
- **Pre-English 1**: Engl 4
- **Basic Writing**: BSWT 3

Calculus-ready **Pre-English 1** students who applied for HESA may take Engl 4 at UCR this summer to be ready for Engl 1A in Fall. No BSWT 3 courses at UCR in Summer.

Students who place into BSWT 3 or ARC 35 are **two quarters away from** where they should be as beginning CNAS Freshmen.

Being Calculus-ready is the most important!
“Why are MAE/AWPE placements at UCR sometimes different than my student’s HS grades may indicate?”
“Why are MAE/AWPE placements at UC sometimes different than my student’s HS grades may indicate?”

“Where are California high schools ranked in the nation?”

“Where is UC ranked in academic quality for universities nation-wide?”
“Why are MAE/AWPE placements at UC sometimes different than my student’s HS grades may indicate?”

“Where are California high schools ranked in the nation?”

“Where is UC ranked in academic quality for universities nation-wide?”

So sometimes California students have to make up for that achievement gap when they enter UC.

Solution: more/better STEM teachers in California K-12 schools.
Intermediate Algebra at UCR

› **ARC 35 at UCR:**
  
  › Summer (7/25-9/0) and Fall sessions ($275)
  
  › Sign-up by July 19 to get priority enrollment for Summer; by August 22 to get priority enrollment for Fall.
  
  › One attempt only to pass course.
  
  › [http://arc.ucr.edu/Incr35](http://arc.ucr.edu/Incr35)
Anatomy of a CNAS bachelor’s degree

180 units minimum (~ 45 classes @ 4 units each)

› Minimum 2.0 GPA (C average).
› Minimum 2.0 GPA in all upper-division major courses.
Anatomy of a CNAS bachelor’s degree

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  - Minimum 2.0 GPA (C average).
  - Minimum 2.0 GPA in all upper-division major courses.

They stood out in high school.

New peer group – “C, D and F” students in H.S. are not here.

The level of effort needed to excel is now much greater.
Bloom's Taxonomy of Learning

C = dutifully memorizing, not much more

B = applying knowledge in a critical, analytical fashion

A = critical/analytical thinking and integrating concepts
Earning a Bachelor’s degree in CNAS is equivalent to a **50-hr per week job**

- Freshmen should study at least 2 additional hours for every hour spent in the classroom:
  
  \[
  16 \text{ units} = 16 \text{ hours in class} + 32 \text{ hours studying} = 48 \text{ hrs/wk}
  \]

- **This is the inverse of High School.**

- Holding down a part-time job makes it **very difficult.**

- Expecting them to commute or come home every weekend makes it **very difficult.**

Goal number one is for them to **focus on coursework** and graduate with a degree in four years!
Students who work part-time on campus perform better academically than those who work off-campus.

Students who work 10 hours or less perform better academically than those who work longer hours.

Students who live in campus housing perform better academically than those who live at home.

Why?

Being on campus brings more opportunities for:
- Academic/social engagement with major and department.
- Research engagement with faculty.
- Professional development events (workshops, seminars).

Being on-campus instills a sense of identification, ownership and participation in their major and career.
Promotes student success in science with unique Learning Communities: groups of 24 students who take the same math and science courses all year long (lecture, lab, discussion).

Requires enrollment in Math course + Science course + Freshman Discovery and Advising Seminar in Fall.

Participate in seminars & workshops throughout the year.

Supplemental instruction (intensive peer tutoring).

Enrollment limited to ~50% of our Freshmen.

Opportunity to apply for a paid research position ($5,000 stipend) with a faculty member in the Summer.
Fall Freshman Discovery Seminar (NASC 93)
Nucleus for the Learning Communities.

Only 24 students per section.
  1 hr. Seminar led by a Professor in CNAS.
  1 hr. Discussion led by academic advisor.

- Learn about Science and Math directly from faculty in a small group setting
- Utilizing campus educational resources (Library, Internet, etc.)
- Study skills and time management
- Opportunities for undergraduate research at UCR
- Career options in the major
- Graduate and professional school preparation
- How to obtain letters of recommendation
- Ethics and academic integrity

Your student was given an opportunity to sign up for a CNAS Learning Community today!
Fostering student maturity and confidence

At UCR we fully understand the nature and diversity of our Freshmen:

- Most are still maturing and learning how to make well-informed decisions.
- Many are first-generation students with no college-experienced peers at home.
- Some are coming from socioeconomic-challenged families.
- Some are coming from homes where English is not the primary spoken language.
That’s why we place such an emphasis on academic support for our Freshmen.

We use centralized mandatory advising and the Learning Communities to get new students started out on the right foot.

We try to engage them in research and faculty mentoring as soon as possible, to give them professional guidance and academic rigor.

These early intervention efforts distinguish CNAS and UCR from other campuses.
Federal and Foundation support of CNAS’ programs:

2013: National Science Foundation awarded CNAS $2.0 M for 5 years to expand its freshman learning community program.

2014: Howard Hughes Medical Institute awarded CNAS $2.4 M for 5 years to support early research and career engagements for its students who are in learning communities.

2014: UCR became a founding member of the University Innovations Alliance, a group of 11 large public universities who are sharing best practices for student success. Funded by Gates, Ford and Lumina Foundations ($5.7M) and Dept. of Education ($8.9M). UCR is in the Alliance because of its success with first-year learning communities and peer tutoring.

2015: NSF awarded CNAS a $1 M 5-year grant to support research scholarships for sophomores.
In spite of everyone’s best efforts, new Freshmen sometimes encounter difficulties:

- **Away from home**: personal/emotional support network has to be re-established.
- **Rapid pace of quarter system**: requires good time management and rigorous study habits.
- **Distractions and temptations**: Dorms, WoW, Facebook, dating, partying, etc.
- **Over-commitment**: part-time job, pledging.
- **Self-imposed pressure**: to become an independent adult (too proud to ask for help).
- And…
Parental/Family Pressure to Perform

- Please don’t say: “I’m paying top $$$$ for your education at UCR, so you’d better get into Med School!”
- Please do say: “I’m very proud of you getting into UCR. I’ll be delighted with whatever exciting major you decide to thrive in!”

Give them the flexibility to discover the path that suits them best, including changing majors if they struggle in their initial choice.

Changing majors is not a sign of failure, it’s a sign of intelligence: a wise recognition that their talent and passion steer them in a new direction.
We know that letting go is hard!
Besides CNAS Advising (UAAC) and faculty mentoring, there are many campus resources to help students:

- **Academic Resource Center**: tutoring, study skills, time management workshops.
- **Counseling Center**: professional, confidential counseling on personal well-being.
- **Health Center**: medical care, flu shots, basic prescriptions.
- **Career Center**: career assessment, job searching, resume writing, interviewing skills.
- **The Well**: healthful living, stress relief, therapy dogs, yoga/meditation, peer mentoring.
Parents’ Rights Quiz: true or false:

- If my student is struggling academically or emotionally, does UCR have to inform me?

- Can the Dean/Professor/Advisor tell me how my student is doing in their classes and their major?

- Can I check online to see what grades my student is getting?
FERPA

Family Educational Rights and Privacy Act of 1974
http://registrar.ucr.edu/QuickLinks/FERPA+Students.htm

When your student was in K-12, FERPA gave you rights to access their educational records.

Now that your student is in college (no matter what their age), this same law transfers ownership of the records directly to the student.

In the eyes of the government (and UC), they are adults with all rights held accordingly.
Under FERPA:

- Permission to directly read your student’s grades and some financial records on the UCR student web interface “Growl” can be granted by your student, if they willingly designate you as an “authorized user” under their account.

- However, this action does not authorize faculty or staff to convey any information to you as a parent/guardian.

- We can only speak with you about your student in person in their presence if they have willingly filled out a FERPA release form, signed it, indicated what information we can convey, and personally turned it in to our advising center with their proper identification.
So, don’t be upset if we won’t answer your questions about your student in response to a phone call or email. We’re not being uncooperative, we are simply prohibited from answering under FERPA.

To get specific answers about your student, they have to authorize us to talk to you, and it has to be in person in their presence (not over the phone or via email).

The Divisional Dean for Student Academic Affairs and the UAAC Director have full access to and knowledge of all CNAS student academic records. It’s our job!
Divisional Dean’s advice for the Summer before Freshman year

Maintain your trust with your student, so that they keep you informed willingly. They want to become independent young adults, but as maturing children they still need your praise and emotional support. This Summer:

› Ask your student: what are their expectations and goals for their Freshman year at UCR?
› Establish a level of comfort for both of you in how they will communicate their academic status and progress to you.
› Have frank discussions now about how they will handle any potential challenges and opportunities in college and life.
› Both of you will then be well-prepared for their success at UCR!
Getting into Medical School

- Medical School is very competitive, requires:
  - Exceptional grades (3.5 - 4.0) and MCAT scores
  - Exceptional diagnostic and analytical skills
  - Exceptional community service record
  - Exceptional leadership and communication skills
  - Exceptional letters of recommendation from faculty (not M.D.s)

- So, students should find a major in which they can be exceptional – they may need to explore different majors and courses.

- No “one” best major for Medical School.
Matriculants to US Medical Schools by Primary Undergraduate Degree Type, 2015-2016

<table>
<thead>
<tr>
<th>Matriculants</th>
<th>MCAT VR Mean</th>
<th>MCAT VR SD</th>
<th>MCAT PS Mean</th>
<th>MCAT PS SD</th>
<th>MCAT BS Mean</th>
<th>MCAT BS SD</th>
<th>Total MCAT Mean</th>
<th>Total MCAT SD</th>
<th>GPA Science Mean</th>
<th>GPA Science SD</th>
<th>GPA Non-Science Mean</th>
<th>GPA Non-Science SD</th>
<th>GPA Total Mean</th>
<th>GPA Total SD</th>
<th>Total Matriculants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Sciences</td>
<td>9.8</td>
<td>1.6</td>
<td>10.4</td>
<td>1.9</td>
<td>11.0</td>
<td>1.6</td>
<td>31.2</td>
<td>4.0</td>
<td>3.64</td>
<td>0.31</td>
<td>3.79</td>
<td>0.22</td>
<td>3.70</td>
<td>0.25</td>
<td>10,675</td>
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<tr>
<td>Humanities</td>
<td>10.4</td>
<td>1.5</td>
<td>10.5</td>
<td>1.8</td>
<td>10.9</td>
<td>1.6</td>
<td>31.8</td>
<td>3.6</td>
<td>3.62</td>
<td>0.30</td>
<td>3.76</td>
<td>0.23</td>
<td>3.69</td>
<td>0.23</td>
<td>1,057</td>
</tr>
<tr>
<td>Math and Statistics</td>
<td>10.4</td>
<td>1.6</td>
<td>11.6</td>
<td>1.7</td>
<td>11.3</td>
<td>1.7</td>
<td>33.4</td>
<td>3.8</td>
<td>3.72</td>
<td>0.27</td>
<td>3.77</td>
<td>0.23</td>
<td>3.74</td>
<td>0.24</td>
<td>192</td>
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<tr>
<td>Other</td>
<td>10.0</td>
<td>1.6</td>
<td>10.4</td>
<td>1.9</td>
<td>10.9</td>
<td>1.6</td>
<td>31.2</td>
<td>3.9</td>
<td>3.63</td>
<td>0.31</td>
<td>3.78</td>
<td>0.22</td>
<td>3.70</td>
<td>0.24</td>
<td>3,601</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>10.1</td>
<td>1.6</td>
<td>11.3</td>
<td>1.8</td>
<td>11.1</td>
<td>1.6</td>
<td>32.5</td>
<td>3.9</td>
<td>3.67</td>
<td>0.29</td>
<td>3.74</td>
<td>0.25</td>
<td>3.70</td>
<td>0.25</td>
<td>2,319</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>10.3</td>
<td>1.5</td>
<td>10.5</td>
<td>1.8</td>
<td>10.8</td>
<td>1.6</td>
<td>31.6</td>
<td>3.7</td>
<td>3.60</td>
<td>0.31</td>
<td>3.73</td>
<td>0.26</td>
<td>3.67</td>
<td>0.25</td>
<td>2,277</td>
</tr>
<tr>
<td>Specialized Health Sciences</td>
<td>9.8</td>
<td>1.7</td>
<td>9.9</td>
<td>1.9</td>
<td>10.4</td>
<td>1.6</td>
<td>30.1</td>
<td>3.9</td>
<td>3.52</td>
<td>0.31</td>
<td>3.78</td>
<td>0.21</td>
<td>3.70</td>
<td>0.24</td>
<td>494</td>
</tr>
<tr>
<td>All Matriculants</td>
<td>10.0</td>
<td>1.6</td>
<td>10.5</td>
<td>1.9</td>
<td>10.9</td>
<td>1.6</td>
<td>31.4</td>
<td>3.9</td>
<td>3.64</td>
<td>0.31</td>
<td>3.77</td>
<td>0.23</td>
<td>3.70</td>
<td>0.25</td>
<td>20,631</td>
</tr>
</tbody>
</table>

Source: AAMC 12/17/2017 Table 18, Applicants and Matriculants Data

Last column: half are non-life science majors!
Which majors got the highest MCAT scores? The lowest?

Medical schools are looking for diverse applicants interested in the human condition, with broad educational training and life experience; not quickly-graduated, narrowly-educated students.
Strategies for Getting into Graduate and Professional Schools

- Study what makes them passionate.
- Major in what makes them exceptional (A’s, B’s).
- It may take some time to find the right major.
- They know Math, Chemistry, Biology and Physics from HS as the basic sciences – but should expand their horizons beyond what they already know.
- Sample some of the less familiar majors and see what fires them up!
- Establish a record of research and service.
The competition they face for faculty time and research opportunities may vary among different majors.

<table>
<thead>
<tr>
<th>Examples of Majors</th>
<th>Students</th>
<th>Faculty</th>
<th>S:F Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>2188</td>
<td>24</td>
<td>91:1</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>757</td>
<td>14</td>
<td>54:1</td>
</tr>
<tr>
<td>Neuroscience</td>
<td>211</td>
<td>21</td>
<td>10:1</td>
</tr>
<tr>
<td>Mathematics</td>
<td>227</td>
<td>24</td>
<td>9:1</td>
</tr>
<tr>
<td>Chemistry</td>
<td>142</td>
<td>26</td>
<td>5:1</td>
</tr>
<tr>
<td>Environmental Science</td>
<td>144</td>
<td>27</td>
<td>5:1</td>
</tr>
<tr>
<td>Statistics</td>
<td>26</td>
<td>8</td>
<td>3:1</td>
</tr>
<tr>
<td>Physics</td>
<td>83</td>
<td>27</td>
<td>3:1</td>
</tr>
<tr>
<td>Geology/Geophysics</td>
<td>26</td>
<td>14</td>
<td>2:1</td>
</tr>
<tr>
<td>Plant Biology</td>
<td>26</td>
<td>30</td>
<td>1:1</td>
</tr>
<tr>
<td>Entomology</td>
<td>31</td>
<td>33</td>
<td>1:1</td>
</tr>
<tr>
<td>Major</td>
<td>Day, Date, Location</td>
<td>Time</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>All Freshman Majors in Biochemistry</td>
<td>Monday, September 19&lt;sup&gt;th&lt;/sup&gt; HUMN 400</td>
<td>8:45 a.m. to 12:00 p.m</td>
<td></td>
</tr>
<tr>
<td>All Freshman Majors in Biology</td>
<td>Monday, September 19&lt;sup&gt;th&lt;/sup&gt; HUMN 400</td>
<td>1:15 p.m. to 4:30 p.m</td>
<td></td>
</tr>
<tr>
<td>Last Names A-L only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Freshman Majors in Biology</td>
<td>Tuesday, September 20&lt;sup&gt;th&lt;/sup&gt; HUMN 400</td>
<td>8:45 a.m. to 12:00 p.m</td>
<td></td>
</tr>
<tr>
<td>Last Names M-Z only</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Freshman Majors in Cell Molecular &amp; Developmental Biology; Entomology; Microbiology; Neuroscience; and Plant Biology</td>
<td>Tuesday, September 20&lt;sup&gt;th&lt;/sup&gt; HUMN 400</td>
<td>1:15 p.m. to 4:30 p.m</td>
<td></td>
</tr>
<tr>
<td>All Freshman majors in all Undeclared Programs</td>
<td>Wednesday, September 21&lt;sup&gt;th&lt;/sup&gt; HUMN 400</td>
<td>8:45 a.m. to 12:00 p.m</td>
<td></td>
</tr>
<tr>
<td>All Freshmen Majors in Chemistry; Environmental Sciences; Geology; Geophysics; Mathematics; Mathematics for Secondary School Teachers; Physics; and Statistics</td>
<td>Wednesday, September 21&lt;sup&gt;th&lt;/sup&gt; HUMN 400</td>
<td>1:15 p.m. to 4:30 p.m</td>
<td></td>
</tr>
</tbody>
</table>
Thank you

In a few weeks this powerpoint presentation will be posted to http://cnasstudent.ucr.edu

Questions?