Minutes
Department of Aeronautics & Astronautics
May 12, 2016

Attending: Acikmese, Breidenthal, Bruckner, Dabiri, Ferrante, Golingko, Hermanson, Holsapple, Jarboe, Knowlen, Kurosaka, Lin, Livne, Lum, Mesbahi, Milroy, Morgansen, Shumlak, Waas, Yang; Gibbs, Maczko

Absent: Narang, Salviato, Slough, Vagners, You

MINUTES
Minutes of the March 2016 meeting were approved. Yes - 19, No - 0, Abstain - 1, Eligible - 25

ANNOUNCEMENTS

• Summer work approval – faculty who intend to work full-time for more than 2.5 months between 6/16 – 9/15 need to request approval from Prof. Waas first and then submit an online form to the College.

• Outside Professional Work for Compensation - Required for non-UW work for which compensation is received July 1 to June 30. Requests are submitted online.

• Summer Student Appointments – Ed Connery will be sending out a notice requesting information regarding summer student appointments.

• Equipment Inventory is due at the end of the month - If any faculty have not yet met with Julie Taylor, please schedule a time to do so.

• Reminder that reimbursement requests must have all appropriate documentation in order to be processed - Faculty working with capstone and clubs should remind students of this. Not providing proper documentation can cause delays. This is especially true with students working on capstone requests.

• Faculty working on fabrications on research budgets, please contact Julie Taylor or Steve Pearson to process quarterly JV if necessary.

• Furniture in 305 – We are in the process of switching out the current 6 ft rectangular tables with 8 ft banquet tables. We are also replacing the chairs with smaller dimension chairs in order to fit more chairs in the room.

• Report on Tomorrow’s professor – This has been a hugely successful program. Thanks to Profs. Anshu Narang-Siddarth, Mehran Mesbahi, and JK Yang for their participation. Thirty students attended the session and another one is scheduled for next week. This program advises students who want careers in academia.

• Grad Visit Day was very successful – Professor with comments about Visit Day or what they would like to see happen next year should send feedback to the graduate committee.

• RA/TA salary increase – The department has been lagging other departments in the college in implementing increases. A 10% increase will be implemented each of the next 2 fiscal years. Faculty should have already budgeted 5%. This should put the department at the medium mark within the college.

REPORTS FROM STANDING COMMITTEES

No report from the following committees: Undergraduate Committee, Computer Committee, Faculty Search, Graduate Committee, Peer Evaluation Committee, Safety Committee, Aero/Astro Working Committees, Space Allocation Committee, Strategic Planning, AIAA, Sigma Gamma Tau, Boeing Professor
PROFESSOR EMERITUS VOTE
Professor Keith Holsapple was unanimously voted to be appointed as professor emeritus.

ADJUNCT PROFESSOR VOTE
Brian Nelson was unanimously voted to be appointed as adjunct research professor.

COURSE SCHEDULING
Please see attached slides.

Discussion:
- (cns) denotation = all groups agreed that all of this was true
- (iscp) = Industry sponsored capstone project
- Students are asked on course evaluations how much time they’ve spent on each class. Professors need to make sure material is covered in class.
- 5 years ago we were offering fewer courses and had less TAs.
- 10 years ago we had significantly less TAs.
- Ad hoc process is no longer feasible moving forward.
- Looked at peer institutions and what they do.
- Graduate course scheduling is very similar to undergrad scheduling. The default is 2 classes per week. Professors who would like to request a different schedule should get the request in early enough to be accommodated. To make sure all constraints are met, A&A classes will meet 3 times per week. At the top 15 schools, the bulk of courses meet 2 times per week; Monday, Wednesday being the default. The department will probably have to shift how material is being taught.
- Are Monday holidays factored in? Will have to check on this.
- With the change in format, are there rooms available? Yes, there have been no problems finding rooms.
- Internships are life changers for students but it is tough for juniors to get summer internships. How can we improve industry connections to get more internships for our students? We are working on this. We are having more conversations with industry and we are on their radar.
- Students are applying for jobs and then they never hear from the companies. We need to train industry to be responsive to students.
- Maybe there is a way industry can support students to do internships here in the department. We want to make sure industry is interacting with the students.
- Can we create a program so alumni can support students to work in the labs?
- Faculty would like acknowledge Affiliate Associate Professor Bob Dougherty for his work bringing internships to our students.

ASSISTANT PROFESSOR MERIT DISCUSSION
Discussion was postponed for a later date.

ASSOCIATE PROFESSOR MERIT DISCUSSION
Discussion was postponed for a later date.

NEW BUSINESS
List of services provided from department IT staff (attached).

ADJOURNED
Meeting adjourned at 0:00pm.
UWAA Academic Programs
Curriculum

• Assessment
• Course content
  – Undergraduate - ABET
• Course scheduling
UWAA Program Assessment
Context

• Keep the strengths, address the needed changes
• Balance undergraduate and graduate program needs
• Increase department ranking relative to peer aerospace programs
  – Current undergraduate aerospace ranking = 15
  – Current graduate aerospace ranking = 19
  – US News and World Reports Undergraduate ranking methods: survey of deans/chairs/faculty
    • Chair’s Distinguished Seminar Series
• Some tasks are “chicken and egg”
Assessment Methods

• CTL cohort feedback
  – Juniors
  – Seniors
    – [Grads]: to be done
• Annual individual student surveys
• Senior exit surveys
• Graduate exit surveys
• Alumni surveys
• Industry surveys
• Visiting Committee feedback
• Ad hoc surveys (e.g., international programs)
Response summary: 2015 Juniors Program Strengths

• Faculty and advisors
  – Care about the students, accessible, particularly Prof. Bruckner

• Labs, projects & technical writing
  – Junior lab: course with freedom, real-life experience, technical writing

• Program size
  – Community, familiarity, small program

• Facilities and career information
  – Good facilities and support staff, computer lab, career opportunities

• Other
  – Research opportunities, mix of Aero/Astro
Response to summary: Juniors 2015
Suggested Program Changes

- Curriculum
  - More practical applications, fieldwork, internships (cns)
    - Products in all senior capstone options
    - Industry sponsored capstone program (ISCP)
    - CC@E
  - Follow “widely accredited curriculum” (fluids) (cns)
    - Ugrad committee planning to enforce ABET syllabi on all undergrad courses
  - More aerospatiels (cns)
    - EP lab class starting Autumn 2016
    - SARP rocket/payload for capstone and ISCP
  - More coding and spread out in curriculum (cns)
  - More machine training (cns)
  - Options in junior year classes (1)

[cns: consensus of all groups]
Response to summary: Juniors 2015 Suggested Program Changes

• Instruction
  – Variety in faculty instructing course (cns)
    • Autumn 2016
  – Review and accountability of faculty teaching (cns)
    • Teaching assignments Autumn 2016
    • Enforcing ABET syllabi
  – Academic support in junior year (1)

• Facilities
  – Cameras in Gug 212 (cns)
  – Improve/extend facilities/equipment (3)
    • Gug 217
    • AERB 120
    • Junior lab equipment update (ongoing)
    • Capstone design lab equipment (ongoing)
Response to summary: Juniors 2015 Suggested Program Changes

• Other
  – Student-administration interaction (cns)
    • Tuesday brown bag lunches
    • Alumni breakfasts
  – Transparency on funds use (cns)
    • Working on annual report
  – Improve gender balance (1)
Response summary: Seniors 2015
Program strengths

• Program atmosphere
  – Social atmosphere, small group (cns)
  – Exclusivity and small classes (cns)

• Faculty
  – Set of strong faculty (cns)
  – Following set curriculum (cns)
  – Faculty providing connections to jobs/internships (cns)
Response summary: Seniors 2015
Program strengths

• Opportunities & tools
  – Access to computing, remote desktop, shop (cns)
  – Projects, extracurricular, lab positions (cns)
  – Unique opportunities (2)
    • Industry connections, particularly in senior capstone

• Curriculum
  – Good foundation and connectivity (1, not cns)
Response to summary: Seniors 2015
Suggested Program Changes

• Facilities and support
  – Manufacturing sector: machine shop access and training (cns)
    • 3D printing facilities
  – Dedicated career advising, job placement (cns)
    • CC@E
  – Main office hours (not cns, 1)
  – General facilities: water jet, lounge, coffeeshop (not cns)
Response to summary: Seniors 2015 Suggested Program Changes

• Computers and computer lab
  – Remove cameras (cns)
  – Programs available in remote desktop (cns)
  – More and better computers (cns)
    • Gug 217, AERB 120
  – Other: 3D printing, double monitors, printing payment
Response to summary: Seniors 2015 Suggested Program Changes

• Curriculum
  – Class in computational programs (cns)
    • In planning
  – Capstone preparation (not cns)
    • Autumn 2016

– Other:
  • Follow academic curriculum: enforcing ABET syllabi
  • Junior CFD course
  • More capstone options, smaller projects: ISCP 2016
  • Space design hands on: AA 420/421 2016, ISCP 2016
# ABET criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>An ability to apply knowledge of mathematics, science and engineering</td>
</tr>
<tr>
<td>b)</td>
<td>An ability to design and conduct experiments, as well as to analyze and interpret data</td>
</tr>
<tr>
<td>c)</td>
<td>An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability</td>
</tr>
<tr>
<td>d)</td>
<td>An ability to function on multi-disciplinary teams</td>
</tr>
<tr>
<td>e)</td>
<td>An ability to identify, formulate and solve engineering problems</td>
</tr>
<tr>
<td>f)</td>
<td>An understanding of professional and ethical responsibilities</td>
</tr>
<tr>
<td>g)</td>
<td>An ability to communicate effectively</td>
</tr>
<tr>
<td>h)</td>
<td>The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context</td>
</tr>
<tr>
<td>i)</td>
<td>A recognition of the need for, and an ability to engage in life-long learning</td>
</tr>
<tr>
<td>j)</td>
<td>Knowledge of contemporary issues</td>
</tr>
<tr>
<td>k)</td>
<td>An ability to use the techniques, skills and modern engineering tools necessary for engineering practice</td>
</tr>
</tbody>
</table>
### ABET criteria

#### Table 4.13 Mapping of program courses to student outcomes

<table>
<thead>
<tr>
<th>Course</th>
<th>a</th>
<th>b</th>
<th>c</th>
<th>d</th>
<th>e</th>
<th>f</th>
<th>g</th>
<th>h</th>
<th>i</th>
<th>j</th>
<th>k</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA 198</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 210</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 260</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 299</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 301</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 302</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 310</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 311</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 312</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 320</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 321</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 322</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 331</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 332</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 360</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 402</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 405</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 410</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y*</td>
</tr>
<tr>
<td>AA 411</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y*</td>
</tr>
<tr>
<td>AA 419</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 420</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y*</td>
</tr>
<tr>
<td>AA 421</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y*</td>
</tr>
<tr>
<td>AA 430</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 432</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 440</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 441</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 447</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>AA 448</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 449</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 461</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 462</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 470</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 480</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 496</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 498</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>AA 499</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

* Students are required to take either AA 410 & 411 or AA 420 & 421.
† Outcomes vary, depending on topic.

The required courses must cover all of a-k
ABET syllabi

• Credits and contact hours
• Coordinator (faculty)
• Textbook
• Supplemental materials
• Catalog data
• Prerequisites by topic
• Outcomes
• Relationship to student outcomes (a-k)
• Topics
Undergraduate Course Content

• 100% of material on ABET syllabi in topics must be covered

• Staff will circulate ABET syllabi to faculty/instructors before end of academic year

• Survey will be sent to all faculty/instructors at end of each quarter with checklist

• Topics not covered must have explanation

• Update of syllabus must be approved by undergraduate committee

• NOTE: UW guideline: 1 credit = 3 hours of student work per week including lecture, lab, quiz sections
## Instructors and Courses

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses</td>
<td>2</td>
<td>25</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Instructors</td>
<td>2</td>
<td>23</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>TAs</td>
<td>22 (+5 graders)</td>
<td>23 (+7)</td>
<td>16 (+7)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Summer 2010</th>
<th>Autumn 2010</th>
<th>Winter 2011</th>
<th>Spring 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses</td>
<td>2</td>
<td>20</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Instructors</td>
<td>2</td>
<td>20</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>TAs</td>
<td>12</td>
<td>12</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses</td>
<td>1</td>
<td>24</td>
<td>24</td>
<td>27</td>
</tr>
<tr>
<td>Instructors</td>
<td>1</td>
<td>22</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td>TAs</td>
<td>17</td>
<td>15</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

Note: some courses have multiple TAs
Scheduling Constraints

The elements that need to be managed are:

• All students (undergrad and grad) being able to take necessary courses without having them overlap (we do have grad students who need to take some 400 level courses)

• TAs being able to attend all of their courses as well as the undergraduate/graduate course lectures/labs for which they are responsible

• Courses offered jointly with other departments

• Room availability on campus

• Fall time schedule due Jan 1, Winter due early July, Spring due Nov

• Growth in number of faculty and number of courses
Scheduling Procedures

• Previously
  – All handled by staff with chair oversight
  – Primarily operated on historical schedules
  – Ad hoc process
  – Based on requests from faculty/instructors this year, cannot continue this process and meet all constraints

• New procedure
  – Undergraduate course guidelines set by undergraduate committee
  – Graduate course guidelines set by graduate committee
  – Any necessary accommodations will be met
Instructional hours

• Departmental guideline (lecture)
  – 1 hour in class, 2 hours homework per credit
• Variations for lab-based courses
• Typical hours for scheduling courses
  – 8:30am – 5:30pm
• Location of courses is determined by University Time Schedule Office
• Default schedule format (consistent with peers)
  – 4 credits: 2 x 2 hours (2 x 100 mins)
  – 3 credits: 2 x 1.5 hours (2 x 75 mins)
BS degree production
USNWR top 15 programs
(w/out Caltech, Stanford, UC Berkeley)

Graduation numbers from 2014 ASEE data, faculty numbers from May 2016 websites
Department ranking from 2016 US News and World Reports assessment
Increase Graduate Program Rank

US News and World Reports Assessment Methods

– Peer assessment: 25%
– Recruiter assessment: 15%
– Average Quant GRE: 6.75%
– Acceptance rate: 3.25%
– PhD students/faculty: 7.5%
– NAE members: 7.5%
– Research expenditures ($M): 15%
– Research expenditures/faculty ($K): 10%
– PhDs granted (2014-15): 6.25%
– Total grad enrollment (2015): 3.75%
Student Computing*

- Create and manage accounts
  - Set up accounts to match UW NetID
  - Reset passwords, as necessary
  - Add UW NetID’s to AA email lists, e.g. ‘students’, ‘seniors’, ‘grads’
  - Match funded-research grads to faculty member
  - Create AA Google Apps domain accounts, as necessary
- Provision and manage computers
  - GUG 212/217 workstations
  - Remote Windows session servers
  - Remote 3D CAD session servers
  - Cerberus high-performance Linux-based cluster
  - GUG 205 workstations (Fiona has admin authority)
- Support Printing
  - Monochrome and color printers (GUG 212/306)
  - Chargeback printer accounting (Equitrac) to cover consumables and printer replacement
- File services
  - Configure individual (U:\ drive) and shared project volumes, e.g. AA410/420
  - Backup user files daily
  - Restore files, as necessary
- Collaboration stations
  - Provide video adapters and Ethernet patch cables
  - Check out mobile collaboration stations
- Develop and maintain student-use documentation
  - General account setup
  - Cerberus Linux-based cluster setup and use
  - Remote CAD-3D session setup

Staff Desktops*

- Administer admin, advising, and fiscal services desktop computers
  - Provision computers with standard applications
  - Tailor desktops to meet individual needs
  - Purchase, install, and update necessary applications and peripheral equipment
- Support Printing
  - Install drivers and create print queues
    - GUG 211 Ricoh color copier/printer
- GUG 211 HP LaserJet 4300 monochrome
- GUG 317 Ricoh monochrome copier/printer
- AERB 120 Xerox ColorQube color printer
  - Supply consumables and maintain non-Ricoh printers

- **File services**
  - Configure individual and shared volumes
  - Backup user files daily
  - Restore files, as necessary

- **Email/Calendaring**
  - UWAA Google Apps domain
  - Create and moderate Mailman list processing

*Only computing support staff have administrative privilege*

---

**Faculty Desktops**

- **Personal desktop/laptop computers**
  - As requested, consult on equipment purchase and provisioning
  - As time permits, assist in the maintenance and troubleshooting

- **Support Printing**
  - Install drivers and create print queues
    - GUG 211 Ricoh color copier/printer
    - GUG 211 HP LaserJet 4300 monochrome
    - GUG 317 Ricoh monochrome copier/printer
    - AERB 120 Xerox ColorQube color printer
  - Supply consumables and maintain non-Ricoh printers

- **Email/Calendaring**
  - UWAA Google Apps domain
  - Mailman list processing

---

**Research**

- **As requested, consult on equipment/software purchase and provisioning**
  - Clarify needs and assist in identification of cost-effective solutions
  - Order standard equipment via eProcurement or Procard
  - Receive equipment or software

- **Assist in computer provisioning and management**
  - Provide media and instructions for supported operating system and application installation
  - Help troubleshoot operating system and application problems
  - Provide limited consultation on unsupported operating systems, e.g. Ubuntu Linux
  - As time permits, port limited-utility open-source applications, e.g. Octave, SciLab, R
Manage research resources housed in department server room (GUG 408**)

Coordinate research access to Cerberus compute cluster
  ● Install and configure non-standard applications

Provide file services
  ● Configure individual and shared volumes

Support scheduled file backup, using department NetVault backup setup
  ○ Researcher purchases necessary $400 NetVault client licenses
  ○ If storage needs less than 200G, files backed up to department-owned disk/tape
  ○ If storage needs greater than 200G, files backed up to researcher-owned disk/tape
    ■ Hard disks purchased to add necessary capacity to GUG 408 SAN
    ■ LTO5 tapes to be added to tape pool, for offsite backup
  ○ Restore user files, as necessary

**Only computing support staff have physical access to GUG 408 server room.

General

● Design and installation of computing resources
  ○ In consultation with department leadership, architect IT solutions to meet current and future department needs
  ○ Procure, install, and maintain department-owned equipment
    ■ Hardware
    ■ Software
    ● Campus-wide CoE and UW-IT licensed software
      ○ Facilitate access to media and installation documentation and license provisions
      ○ If necessary, add hostnames to permitted-host lists
    ● Procure and maintain AA-licensed software
      ○ Arrange purchase and update/maintenance contracts
      ○ Implement network-based license distribution

● Operation and maintenance
  ○ Windows Desktop/Server OS, Apple OS X, Linux (RedHat/CentOS)
  ○ Arrange update/maintenance contracts
  ○ Install OS patches/updates and major upgrades
  ○ Application installation and updates

● File storage
  ○ Configure individual and shared volumes
  ○ Backup user files on daily basis to onsite and offsite locations

● Network services
  ○ ‘UWAA’ Windows Active Directory Domain
- Maintain user/group accounts
- Maintain computer membership/trust
- Assign security settings
  - Domain name/IP (DNS) addressing for hardwired Ethernet
    - Assign static IP addresses, as needed
    - Provide dynamic addresses (DHCP)
  - Windows Software Update Service (WSUS)
    - Provide local repository for Microsoft OS and application updates
    - Approve updates for installation
- Printing
- Equipment inventory/insurance
  - Newly purchased equipment
    - If necessary, add to UW inventory and affix Inventory tag
    - If expedient, add to UW self-insurance program
  - Older equipment
    - When outdated or inoperative, surplus equipment
    - Assess value and either renew, reduce, or remove insurance
- Web services
  - Based on Drupal Content Management System (CMS), hosted on CoE hardware
  - As of January 2016, AA web services outsourced to CoE Web Team
  - AA computing support only maintains computing-related content
- Surveillance camera recordings
  - Purchase and install cameras
  - Record video to surveillance storage server
  - Provide access to recordings, as required
- Audio/Video recording and distribution
  - Seminar/event recording in Full HD (1920 x 1080)
  - Post-recording editing (Final Cut Pro X)
  - Published on department website via local storage or YouTube