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# University of Houston Undergraduate Council Annual Report Fall 2007-Spring 2008

**Submitted by:**

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**University of Houston Undergraduate Council**
**2007-2008**

# University of Houston
# Undergraduate Council
# Annual Report- Fall 2007-Spring 2008

The following document is a summary of the submitted course proposals, policies and procedures, changes in existing and development of new programs within the University of Houston Undergraduate Curriculum. Included in this document are the finalization of discussions and actions taken regarding the Drop Policy and the Undergraduate Grievance Policy. They are separated from the UC document listing because of their controversial nature and representative discussions that ensued. Each of these were vetted and worked for a period of nearly two years prior to submittal to council with recommendation to approve.

In reading the document, please keep in mind that the work of this council remains continuous and some of the proposals have been tabled for further review by any of the three permanent sub-committees.

1. **Items in boldface type are pending Undergraduate Council approval**
2. **Items in red boldface type are tabled for further discussion**
3. **Items in greed boldface type are withdrawn from the agenda**
4. **Items in brown boldface type are documents that do not need Council action and are FYI only.**

In addition to regular council business, the meeting agenda often included presentations from campus units or programs that directly influence the Council's operation or that of the University of Houston campus. In 2007, we were presented with and approved the Academic Policies and Procedures UC Subcommittee's recommendations for an allowable 6-"W" policy. We discussed and approved mandatory orientation for all FTIC students. Several Undergraduate Council members were involved in the "Achieve the Dream" transfer student project and all were involved in the review process of documents presented to the Degree Programs Committee. We were actively involved in the transition to the PeopleSoft enrollment and evaluation system and process and the deliberations revolving around the SAM and QEP development. All the aforementioned presentations, considerations and decisions referred to the betterment of the University of Houston's climate of operation and the ever-changing campus community.

Respectfully submitted,

Dr. Joel A. Bloom-Chair
University of Houston Undergraduate Council 2007-2008

## 2007 -2008 Undergraduate Council Documents

### For Council Information Input or Consideration:

UC 9284 07F: Change in Policy: Selected Topics & Special Problems Courses
UC 9325 07F: Texas State Six Drop Policy (SB 1231)
UC 9327 07F: Student Athlete Academic Profile
UC 9328 07F: Orientation Task Force Year-End Report 2006-2007
UC 9329 07F: Fall 2007 Orientation Conference
UC 9330 07F: Undergraduate Council Annual Report 2006-2007
UC 9661 07F: Achieving the Dream
UC 9662 07F: UH Web Redesign
UC 9671 07F: Executive Associate Vice President for Academic and Faculty Affairs Approval Memo
UC 9696 07F: Executive Associate Vice President for Academic Affairs Approval Memo
UC 9697 07F: Executive Associate Vice President for Academic Affairs Approval Memo
UC 9698 07F: Executive Associate Vice President for Academic Affairs Approval Memo
UC 9705 07F: Recruitment Activity for September – November 2007
UC 9710 07F: Executive Associate Vice President for Academic Affairs Approval Memo
UC 9720 08S: FYI: Building Plans for Degree Audit (PeopleSoft)
UC 9725 08S: Report: English for Non-Native Speaking Students
UC 9729 08S: Executive Associate Vice President for Academic Affairs Approval Memo
UC 9730 08S: FYI: Scholarships and Financial Aid Guide 2007-2008 (sample packet)
UC 9738 08S: Admissions Acceptance Packet
UC 9739 08S: Quality Enhancement Plan (QEP) Executive Summary February 2008
UC 9740 08S: Discovery-Based Learning: Transforming the Undergraduate Experience Through Research: Quality Enhancement Plan (QEP) February 2008, section 3.4
UC 9746 07F: Executive Associate Vice President for Academic Affairs Approval Memo
UC 9747 07F : Executive Associate Vice President for Academic Affairs Approval Memo
UC 9749 07F: Assessment of Critical Thinking
UC 9753 08S: B.A. in Liberal Studies (new major) – request for support
UC 9756 08S: Preliminary Advisory Report form USD Task Group
UC 9758 08S: Executive Associate Vice President for Academic Affairs Approval Memo
UC 9760 08S: Executive Associate Vice President for Academic Affairs Approval Memo
UC 9761 08S: Executive Associate Vice President for Academic Affairs Approval Memo

### Academic Policies & Procedures Committee:

UC 8857 06S: Scholarship processing issues
UC 9335 07F: Political Science Credit by Exam
UC 9357 07F: Pharmacy: Change in math requirement
UC 9359 07F: Mandatory Orientation
UC 9435 07F: Repeated courses as electives
UC 9436 07F: Which courses constitute Formal Sciences
UC 9437 07F: Exclusion of Special Problems or Research Courses as part of 30 Hour Residency
UC 9438 07F: Limit on Correspondence Work and Extension Classes
UC 9439 07F: Lower Division Transfer Credit Proposal
UC 9476 07F: Academic Policies and Procedures Subcommittee Report 10/9/07
UC 9541 07F: Pharmacy: Change in math requirement

UC 9543 07F: HRM minimum transfer GPA change
UC 9677 07F: Academic Policies and Procedures Committee Report 11/7/07
UC 9678 07F: Registration Proposal
UC 9703 07F: Academic Policies and Procedures Subcommittee Report 11/29/07
UC 9721 08S: Engineering Transfer Admission Requirements
UC 9722 08S: Mechanical Engineering program GPA Requirements
UC 9723 08S: Formal Science Requirement for the BS Degree
**UC 9724 08S: Scholarships and Financial Processing Issues**
UC 9732 08S: Computer Science Transfer Requirements
UC 9734 08S: "W grade" as penalty for Academic Dishonesty
UC 9735 08S: Academic Policies and Procedures Committee Report 3/10/08
UC 9741 08S: Policy for Drops After the Last Day for Dropping Courses
**UC 9742 08S: Registration Proposal**
**UC 9744 08S: Academic Policies and Procedures Committee Report 4/1/08**
UC 9748 07F: Foreign Language Waiver Policy
UC 9750 08S: AP Credit for English Literature and Composition
UC 9754 08S: Academic Policies and Procedures Committee Report 4/16/08
**UC 9755 08S: Calculation of GPA in Major and Minor**
UC 9759 08S: Academic Policies and Procedures Committee Report 5/1308

**Core Curriculum Committee:**

UC 9342 07F: HIST 4371: Latin American History Through Film (new VPA core course)
UC 9346 07F: HIST 2330: Writing in the Discipline of English (new WID core course)
UC 9368 07F: MUSC 4366: Music in the United States (WID core course)
UC 9383 07F: WCL 2352: World Cinema (new HUM Core course)
UC 9385 07F: WCL 3362: U.S. Caribbean and Central American Latino Literatures (new HUM Core course)
UC 9391 07F: ECON 2301: Global Economic Concepts (Soc/Behav Core course)
UC 9392 07F: ECON 2304: Microeconomic Principles (Soc/Behav Core course)
UC 9393 07F: ECON 2305: Macroeconomic Principles (Soc/Behav Core course)
UC 9398 07F: ECON 3332, ECON 3334, ECON 3350 Core category switches
UC 9403 07F: BIOL 3311: Genetics Laboratory (new WID Core course)
UC 9442 07F: PHYS 1301: Introductory General Physics I (Nat Sci Core course)
UC 9443 07F: PHYS 1321: University Physics I (Nat Sci Core course)
UC 9444 07F: PHYS 1322: University Physics II (Nat Sci Core course)
UC 9474 07F: Core Curriculum Committee Report 9/26/07
UC 9475 07F: Core Curriculum Committee Report 10/2/07
UC 9659 07F: RELS 2330: Judaism (new HUM Core course)
UC 9660 07F: RELS 2335: Rabbinical Biblical Interpretation (new WID Core course)
UC 9676 07F: Core Curriculum Committee Report 10/26/07
UC 9704 07F: Core Curriculum Committee Report 11/29/07

**Degree Programs Committee:**

UC 9278 07S: American Humanics Certification degree plan change
UC 9280 07S: Military Science minor name change to Military Leadership
UC 9283 07S: Chemistry degree plan changes
UC 9287 07F: HIST 4384: East Asian Women in Historical and Cross Cultural Perspectives (new course)

UC 9288 07F: HIST 4372: African Experience in Latin American and the Caribbean (new course)
UC 9289 07F: HIST 3363: Pirates and Smugglers in the Modern World (new course)
UC 9290 07F: CHNS 3311: Public Speaking in Chinese (new course)
UC 9291 07F: CHNS 4398: Special Problems in Chinese Studies (new course)
UC 9292 07F: COMM 3342: Health Campaign Evaluation (new course)
UC 9293 07F: GREK 1331: Introduction to Classical and Biblical Greek I
UC 9294 07F: GREK 2331: Translation of Classical and Biblical Greek I (new course)
UC 9295 07F: GREK 1332: Introduction to Classical and Biblical Greek II
UC 9296 07F: GREK 2332: Translation of Classical and Biblical Greek II (new course)
UC 9297 07F: BIOE 5369: Computational Fluid Dynamics II (new course)
UC 9298 07F: MECE 5369: Computational Fluid Dynamics II (new course)
UC 9299 07F: NUTR: 4348: Introduction to Nutrition Counseling (new course)
UC 9300 07F: DAN 1217: Jazz Dance II
UC 9301 07F: DAN 1218: Introduction to Folk and Social Dance (new course)
UC 9302 07F: DAN 1219: Modern Dance III, part I (new course)
UC 9303 07F: DAN 1220: Modern Dance III, Part II (new course)
UC 9304 07F: DAN 1221: Ballet III, Part I (new course)
UC 9305 07F: DAN 1222: Ballet III, Part II (new course)
UC 9306 07F: DAN 4305: Senior Project with Career Management
UC 9307 07F: DAN 4308: Dance Pedagogy II (new course)
UC 9308 07F: THEA 2329: Voice for the Actor I
UC 9309 07F: THEA 2342: Dramatic Structures and Genres
UC 9310 07F: THEA 3337: Stagecraft II
UC 9311 07F: THEA 4347: The Broadway Musical Canon
UC 9312 07F: THEA 4348: Improvisation for Actors
UC 9313 07F: THEA 4351: Acting Through Props
UC 9314 07F: THEA 4367: Costume Draping (new course)
UC 9315 07F: THEA 3334: Voice for the Actor II
UC 9316 07F: SPAN 1505: Intensive Elementary Spanish
UC 9317 07F: CHNS 4364: Issues in Chinese Language and Linguistics (new course)
UC 9318 07F: COMM 3303: Health Literacy (new course)
UC 9319 07F: COMM 3304: Multicultural Health Communication (new course)
UC 9320 07F: COMM 3305: Communication and Catastrophic Conditions (new course)
UC 9321 07F: COMM 3340: Health Campaign Principles and Tailored Messages (new course)
UC 9322 07F: COMM 3341: Health Campaigns (new course)
UC 9323 07F: DAN 4307: Dance Pedagogy I
UC 9326 07F: Degree Programs Committee Report 9/5/07
UC 9331 07F: TRDE 3303: Measuring Learning and Performance Outcomes (new course)
UC 9332 07F: TRDE 3310: Introduction to Career Development and Planning (new course)
UC 9333 07F: TRDE 3350: Global Human Resource Development (new course)
UC 9334 07F: B.S. in Human Resources Development (HRD) (new degree)
UC 9336 07F: COMM 2370: Introduction to Motion Pictures
UC 9337 07F: COMM 3353: Information and Communication Technologies I
UC 9338 07F: COMM 4374: News Media in Contemporary Society
UC 9339 07F: COMM 4381: Digital Cinematography and Narrative Storytelling (new course)
UC 9340 07F: COMM 4353: Information and Communication Technologies II
UC 9341 07F: HIST 4386: Africa Since 1945-Present
UC 9343 07F: HIST 3355: British Empire since 1500 (new course)
UC 9344 07F: HIST 3334: Chicana History (new course)
UC 9345 07F: HIST 3321: US Foreign Policy 1900-Present (new course)

UC 9347 07F: ENGL 3317: The British Novel Before 1832
UC 9348 07F: ENGL 3318: The British Novel since 1832
UC 9349 07F: ENGL 3352: Nineteenth-Century American Fiction
UC 9350 07F: ENGL 3353: Modern American Fiction
UC 9351 07F: ENGL 4373: Film, Text, and Politics
UC 9352 07F: ENGL 4397: Selected Topics in Film, Literature, and Culture (new course)
UC 9353 07F: DAN 2300: Dance Improvisation
UC 9354 07F: THEA 3368: Costume Design for Dance (new course)
UC 9355 07F: THEA 4339: Dramaturgy (new course)
UC 9356 07F: THEA 4360: Theatrical Wig Construction and Styling (new course)
UC 9358 07F: HIST 4368: Food, Drink, and Drugs of Latin America (new course)
UC 9360 07F: Phronesis Politics and Ethics Minor (new minor)
UC 9361 07F: MUSI 3107: Basic Vocal Techniques (new course)
UC 9362 07F: MUSI 3108: Piano for Choral Directors (new course)
UC 9363 07F: MUSI 4212: Instrumentation and Arranging
UC 9364 07F: MUSI 4220: Choral Conducting I
UC 9365 07F: MUSI 4221: Choral Conducting II
UC 9366 07F: MUSI 4343: Materials for children's Choirs Grades 4-12
UC 9367 07F: MUSI 4344: High School Instrumental Administration and Marching Band Techniques
UC 9369 07F: MUSI 4384: Vocal Literature (new course)
UC 9370 07F: MUSI 4230: Instrumental Conducting I
UC 9371 07F: MUSI 4231: Instrumental Conducting II
UC 9372 07F: MUSI 4340: Elementary and Middle School Instrumental Administration
UC 9373 07F: COMD 4384: Overview of Written Language Disorders
UC 9374 07F: CHNS 1209: Chinese Calligraphy (new course)
UC 9375 07F: CHNS 2207: Conversational Chinese I (new course)
UC 9376 07F: CHNS 2308: Conversational Chinese II (new course)
UC 9377 07F: CHNS 3396: Selected Topics (new course)
UC 9378 07F: CHNS 4301: Public Speaking in Chinese (new course)
UC 9379 07F: CHNS 4302: Integrated Chinese (new course)
UC 9380 07F: CHNS 4396: Selected Topics (new course)
UC 9381 07F: FREN 3314: Advanced Grammar and Composition II (new course)
UC 9382 07F: ITAL 4304: Italian Culture in English Translation (new course)
UC 9384 07F: WCL 3352: Latin American and Latino Film Studies (new course)
UC 9386 07F: WCL 4322: Seminar in Scholarly Production (new course)
UC 9387 07F: WCL 4362: Seminar in Latin American and Latino Literatures (new course)
UC 9388 07F: WCL 4381: Seminar in Latin American and Latino Cultural Studies (new course)
UC 9389 07F: WCL 4395: Sexuality in Latino Culture (new course)
UC 9390 07F: WCL 4396: Special Topics in World Cultures and Literature (new course)
UC 9394 07F: ECON 3358: Economic Development of Latin America (new course)
UC 9395 07F: ECON 4331: Economics of Gender (new course)
UC 9396 07F: ECON 4335: Economic Growth Theory (new course)
UC 9397 07F: Economics Minor requirement change
UC 9399 07F: CHNS 3360: A Look in to Modern China
UC 9400 07F: DAN 3310: Dance History I
UC 9401 07F: DAN 3311: Dance History II
UC 9402 07F: WCL 4379: Critical Theory and Globalization (new course)
UC 9404 07F: BIOL 3345: Plant Physiology
UC 9405 07F: BIOL 4324: Bioinformatics for Biologists (new course)

UC 9406 07F: BIOL 4347: Animal Behavior
UC 9407 07F: BIOL 4366: Molecular Evolution (new course)
UC 9408 07F: BIOL 4367: Evolutionary Ecology
UC 9409 07F: BCHS 4321: Proteomics and Genomics (new course)
UC 9410 07F: BCHS 4322: Biochemistry of Organelles (new course)
UC 9411 07F: BCHS 4324: Bioinformatics for Biologists (new course)
UC 9412 07F: BA, BS Biology degree program changes
UC 9413 07F: PHIL 3382: Medieval Philosophy (new course)
UC 9414 07F: PSYC 4301: Psychology and the Arts (new course)
UC 9415 07F: PSYC 4302: The Psychology of Humor (new course)
UC 9416 07F: RELS 3315: Rabbinical Biblical Interpretation (new course)
UC 9417 07F: RELS 3370: The Bible and Modern Science (new course)
UC 9418 07F: RELS 3375: Christianity and Ethics (new course)
UC 9419 07F: RELS 3380: Introduction to Asian Religion (new course)
UC 9420 07F: RELS 3385: Buddhism (new course)
UC 9421 07F: RELS 3390: Hinduism and Jainism (new course)
UC 9422 07F: RELS 4320: Religion and Personality (new course)
UC 9423 07F: RELS 4360: Clash of Civilizations (new course)
UC 9424 07F: COMD 4333: Neurogenic Communication Disorders
UC 9425 07F: COMM 3361: Advertising Copywriting
UC 9426 07F: VIST 1300: Introduction to Visual Studies (new course)
UC 9427 07F: VIST 3398: Selected Topics in Visual Studies (new course)
UC 9428 07F: VIST 4300: Senior Project in Visual Studies (new course)
UC 9429 07F: SPAN 2307: Spanish for Hispanic Heritage Learners I
UC 9430 07F: SPAN 4366: History of the Spanish Language (new course)
UC 9431 07F: SPAN 4367: U.S. Hispanics and Language (new course)
UC 9432 07F: SPAN 4374: Teaching Spanish to Heritage Learners (new course)
UC 9433 07F: Sociology Degree Plan changes
UC 9434 07F: B.S. Environmental Sciences Degree Plan changes and name change
UC 9440 07F: COMM 4382: Advanced Nonlinear Editing
UC 9441 07F: BIOL 4366: Molecular Evolution (new course)
UC 9445 07F: ART 3318: Book Arts (new course)
UC 9446 07F: ART 3321: Perspective Drawing
UC 9447 07F: ART 3328: Rendering and Sketching
UC 9448 07F: ART 3380: Intermedia Seminar (new course)
UC 9449 07F: ART 3381: Intermedia Laboratory (new course)
UC 9450 07F: ART 4198: Independent Study
UC 9451 07F: ART 4298: Independent Study
UC 9452 07F: ART 4306: Advanced Drawing (new course)
UC 9453 07F: ART 4398: Independent Study
UC 9454 07F: ART 4498: Independent Study
UC 9455 07F: ART 4598: Independent Study
UC 9456 07F: ARTH 2384: Baroque Art
UC 9457 07F: ARTH 3301: Critical Theory (new course)
UC 9458 07F: ARTH 3302: Contemporary Art Criticism (new course)
UC 9459 07F: ARTH 3311: Greek Art
UC 9460 07F: ARTH 3313: Roman Art (new course)
UC 9461 07F: ARTH 3317: Ancient Near Eastern Art (new course)
UC 9462 07F: ARTH 3387: American Art I
UC 9463 07F: ARTH 3388: American Art II

UC 9464 07F: ARTH 3394: Selected Topics in Arth History
UC 9465 07F: ARTH 3395: Selected Topics in Critical Theory and Criticism (new course)
UC 9466 07F: ARTH 4394: Selected Topics in Art History
UC 9467 07F: ARTH 4395: Selected Topics in Contemporary Theory and Practice (new course)
UC 9468 07F: IART 3300: Introduction to Interdisciplinary Art (new course)
UC 9469 07F: IART 3395: Selected Topics in Interdisciplinary Arts (new course)
UC 9470 07F: IART 4300: Collaboration Among the Arts (new course)
UC 9471 07F: Communication Sciences and Disorders degree plan change
UC 9472 07F: POLS 3388: Political Leadership (new course)
UC 9473 07F: WCL 4364: History of Drama in Northern and Central Europe (new course)
UC 9477 07F: Degree Programs Report 10/3/07
UC 9479 07F: Degree Programs Report 10/10/07
UC 9480 07F: Interdisciplinary Arts Minor (IART) (new minor)
UC 9481 07F: ACCT 3371: Accounting Information Systems
UC 9482 07F: FINA 4310: Behavioral Finance
UC 9483 07F: FINA 4320: Investment Management
UC 9484 07F: FINA 4323: Investments and Mutual Fund Management (new course)
UC 9485 07F: FINA 4326: Private Equity and Investment Banking (new course)
UC 9486 07F: FINA 4330: Corporate Finance
UC 9487 07F: FINA 4340: Financial Systems
UC 9488 07F: FINA 4341: Commercial Bank Management
UC 9489 07F: FINA 4350: Options and Futures
UC 9490 07F: FINA 4351: Futures and Swaps
UC 9491 07F: FINA 4354: Risk Management
UC 9492 07F: FINA 4355: International Risk Management
UC 9493 07F: FINA 4356: Insurance Operations
UC 9494 07F: FINA 4357: Commercial Liability
UC 9495 07F: FINA 4358: Commercial Property
UC 9496 07F: FINA 4359: Energy Insurance and risk Management
UC 9497 07F: FINA 4360: International Financial Management
UC 9498 07F: FINA 4370: Energy Trading (new course)
UC 9499 07F: FINA 4371: Energy Value Chain (new course)
UC 9500 07F: FINA 4372: Upstream Economics
UC 9501 07F: FINA 4373: Petrochemical and Refining Economics (new course)
UC 9502 07F: FINA 4375: Economics of Energy
UC 9503 07F: FINA 4380: Real Estate Financial Analysis
UC 9504 07F: FINA 4390: Current Issues in Finance
UC 9505 07F: GENB 2301: Connecting Bauer to Business
UC 9506 07F: MANA 4310: Behavioral Finance
UC 9507 07F: MARK 4338: Marketing Research
UC 9508 07F: MARK 4339: Database Marketing
UC 9509 07F: MARK 4376: Sales Force Automation
UC 9510 07F: STAT 4365: Business Forecasting
UC 9511 07F: STAT 4381: Quantitative Analysis of Decision Making
UC 9512 07F: STAT 4397: Selected Topics in Statistics
UC 9513 07F: MIS 3300: Introduction to Computers and Management Information Systems
UC 9514 07F: MIS 3369: Information Technology in Organizations
UC 9515 07F: MISC 3370: Information Systems Development Tools
UC 9516 07F: MIS 3371: Transaction Processing Systems I
UC 9517 07F: MIS 3376: Business Database Management Systems
UC 9518 07F: MIS 3380: Systems analysis and Design

UC 9519 07F: MIS 3399: Senior Honors Thesis
UC 9520 07F: MIS 4371: Interactive Systems
UC 9521 07F: MIS 4372: Transaction Processing Systems II
UC 9522 07F: MIS 4374: Information Technology Project Management
UC 9523 07F: MIS 4375: Information Technology Management and Control
UC 9524 07F: MIS 4376: Decision Support Systems and Expert Systems
UC 9525 07F: MIS 4379: Business Systems Consulting
UC 9526 07F: MIS 4380: Multimedia Applications in Business
UC 9527 07F: MIS 4397: Selected topics in Management Information Systems
UC 9528 07F: MIS 4477: Network and Security Infrastructure
UC 9529 07F: MIS 4478: Administration of computer-Based Management Information Systems
UC 9530 07F: SCM 3301: Service and Manufacturing Operations
UC 9531 07F: SCM 4356: Project Operations
UC 9532 07F: SCM 4361: Supply Chain Management
UC 9533 07F: SCM 4362: Enterprise Resource Planning
UC 9534 07F: SCM 4363: Operations in Service Industries
UC 9535 07F: SCM 4366: Distribution and Inventory Management
UC 9536 07F: SCM 4367: Competitive Quality
UC 9537 07F: SCM 4368: Supply Chain Control Systems
UC 9538 07F: SCM 4369: Supply Chain Management Internship
UC 9539 07F: SCM 4388: Production and Logistics Management for Small Business
UC 9540 07F: SCM 4390: Energy Supply Chain
UC 9542 07F: HIST 4384: Africa and the Oil Industry (new course)
UC 9544 07F: HRM major degree plan change
UC 9545 07F: Beverage Management and Marketing Minor (new minor)
UC 9546 07F: HIND 1501: Elementary Hindi I (new course)
UC 9547 07F: HIND 1502: Elementary Hindi II (new course)
UC 9548 07F: HIND 2302: Intermediate Hindi II (new course)
UC 9549 07F: HIND 2301: Intermediate Hindi I (new course)
UC 9550 07F: HRMA 1422: Food Service Production and Operations
UC 9551 07F: HRMA 2220: Food and Beverage Service
UC 9552 07F: HRMA 2350: Managing in the Service Environment
UC 9553 07F: HRMA 3322: Kitchen Operations Management
UC 9554 07F: HRMA 3327: Restaurant Layout and Design
UC 9555 07F: HRMA 3336: Beverage Management
UC 9556 07F: HRMA 3341: Hospitality Managerial Accounting
UC 9557 07F: HRMA 3343: Hospitality Cost Controls
UC 9558 07F: HRMA 4323: Advanced Food and beverage Management
UC 9559 07F: HRMA 4336: Beverage Marketing (new course)
UC 9560 07F: HRMA 4354: Advanced Hospitality Operations Management (new course)
UC 9561 07F: HRMA 4358: Alcoholic Beverage Law and Regulations (new course)
UC 9562 07F: HRMA 4367: Advanced Lodging Management
UC 9563 07F: INDS 2501: Industrial Design Studio IV
UC 9564 07F: ARCH 3350: History of Pre-Christian Architecture Through Archeological
UC 9565 07F: ARCH 3351: History of the Architecture of the Ancient Mediterranean World
UC 9566 07F: ARCH 3352: Architecture Study Trip
UC 9567 07F: ARCH 3360: Beaux-Arts Architectural Rendering
UC 9568 07F: ARCH 5355: Saintes Workshop
UC 9569 07F: MARK 4398: Special Problems
UC 9570 07F: MIS 4398: Special Problems
UC 9571 07F: MIS 4399: Senior Honors Thesis

UC 9572 07F: SCM 3399: Senior Honors Thesis
UC 9573 07F: SCM 4397: Selected Topics in Supply Chain Management
UC 9574 07F: SCM 4398: Special Problems
UC 9575 07F: SCM 4399: Senior Honors Thesis
UC 9576 07F: STAT 3331: Statistical Analysis for Business Applications I
UC 9577 07F: STAT 3399: Senior Honors Thesis
UC 9578 07F: STAT 4398: Special Problems
UC 9579 07F: STAT 4399: Senior Honors Thesis
UC 9580 07F: BIOL 4206: Ecology and Evolution Laboratory
UC 9581 07F: BIOL 4368: Ecology
UC 9582 07F: BIOL 3397: Selected Topics in Biology (new course)
UC 9583 07F: COSC 4355: Introduction to Ubiquitous Computing (new course)
UC 9584 07F: COSC 4358: Introduction to Interactive Game Development (new course)
UC 9585 07F: MATH 4377: Advanced linear Algebra I
UC 9586 07F: MATH 4378: Advanced Linear Algebra II
UC 9587 07F: BTEC 1322: Introduction to Biotechnology (new course)
UC 9588 07F: CNST 3155: Construction Materials and Testing (new course)
UC 9589 07F: CNST 3351: Construction Estimating II (new course)
UC 9590 07F: CNST 3355: Strength of Construction Materials (new course)
UC 9591 07F: CNST 4190: Current Issues in Construction Management (new course)
UC 9592 07F: CNST 4290: Current Issues in Construction Management (new course)
UC 9593 07F: CNST 4341: Project Controls (new course)
UC 9594 07F: CNST 4390: Current Issues in Construction Management (new course)
UC 9595 07F: MECT 1330: Engineering Graphics (new course)
UC 9596 07F: BTEC 2320: Biotechnology Regulatory Environment
UC 9597 07F: BTEC 2321: Good Manufacturing Practices in Biotechnology
UC 9598 07F: BTEC 3320: Introduction to Quality Control/Quality Assurance in Biotechnology
UC 9599 07F: CNST 1301: Construction Materials and Methods
UC 9600 07F: CNST 1361: Construction Management I
UC 9601 07F: CNST 2321: Mechanical and Electrical Systems
UC 9602 07F: CNST 2341: Construction Documents
UC 9603 07F: CNST 2351: Construction Estimating I
UC 9604 07F: CNST 3185: Construction Experience
UC 9605 07F: CNST 3205: Construction Safety Management
UC 9606 07F: CNST 3301: Construction Equipment and Methods
UC 9607 07F: CNST 3311: Structural Steel and Timber Construction
UC 9608 07F: CNST 3312: Project Finance and Economics
UC 9609 07F: CNST 3331: Construction Planning and Scheduling
UC 9610 07F: CNST 4265: Site Development and Environmental Issues
UC 9611 07F: CNST 4302: Construction Law and Ethics
UC 9612 07F: CNST 4331: Construction Management II
UC 9613 07F: CNST 4372: Soil Mechanics and Foundations
UC 9614 07F: CNST 4381: Reinforced Concrete and Building Codes
UC 9615 07F: ELET 3402: Communications Circuits
UC 9616 07F: ELET 3405: Microprocessor Architecture
UC 9617 07F: ELET 3425: Embedded Systems
UC 9618 07F: ELET 4208: Senior Project Laboratory
UC 9619 07F: ELET 4308: Senior Project
UC 9620 07F: ELET 4326: Power Converter Circuits
UC 9621 07F: ELET 4327: Optical Circuits (new course)

UC 9622 07F: ELET 4421: Computer Networks
UC 9623 07F: BTEC 4394: Selected Topics in Biotechnology (new course)
UC 9624 07F: CNST 4394: Selected Topics in Construction Management (new course)
UC 9625 07F: SURY 4394: Selected Topics in Survey Engineering Technology (new course)
UC 9626 07F: ELET 4394: Selected Topics in Electrical/Electronics Technology (new course)
UC 9627 07F: MECT 4394: Selected Topics in Mechanical Engineering Technology (new course)
UC 9628 07F: HDCS 4331: Advanced Strategies for Futures Planning in Consumer Sciences and Retailing (new course)
UC 9629 07F: HDCS 4334: E-Tailing Systems (new course)
UC 9630 07F: TRDE 4340: Introduction to Training and Development
UC 9631 07F: GRTC 2351: Web Design (new course)
UC 9632 07F: GRTC 2352: Digital Photography (new course)
UC 9633 07F: GRTC 3354: Video Planning and Production (new course)
UC 9634 07F: GRTC 3399: Senior Honors Thesis (new course)
UC 9635 07F: GRTC 4374: Video Post-Production (new course)
UC 9636 07F: GRTC 4376: Multimedia Authoring
UC 9637 07F: GRTC 4378: Senior Project
UC 9638 07F: GRTC 4394: Selected Topics in Graphic Communication (new course)
UC 9639 07F: GRTC 4399: Senior Honors Thesis (new course)
UC 9640 07F: ITEC 2337: Fundamentals of Information Security (new course)
UC 9641 07F: ITEC 3325: Survey of Information Technology Applications (new course)
UC 9642 07F: ITEC 3337: Secure Application Design (new course)
UC 9643 07F: ITEC 3351: Intrusion Detection and Incident Response (new course)
UC 9644 07F: ITEC 3358: Information Media for Organizations (new course)
UC 9645 07F: ITEC 4338: Database Administration and Implementation
UC 9646 07F: ITEC 4355: Enterprise Assessment and Evaluation (new course)
UC 9647 07F: ITEC 4375: Project Management and Practice
UC 9648 07F: LOGT 3375: Maritime Operations (new course)
UC 9649 07F: LOGT 3376: Global Trade Intermediaries (new course)
UC 9650 07F: LOGT 4387: Financial Evaluation for Supply Chain Management
UC 9651 07F: TELS 4342: Quality Improvement Methods (new course)
UC 9652 07F: AAS 3354: African nationalist Thought and Ethics in the U.S. (new course)
UC 9653 07F: COMM 2310: Writing for Print and Digital Media
UC 9654 07F: COMM 3311: Editing for Print and Digital Media
UC 9655 07F: COMM 3329: Media Performance
UC 9656 07F: MARK 4179: Sales Practicum
UC 9657 07F: HRMA 4132: Beverage Management and Marketing Internship (new course)
UC 9658 07F: B.F.A. Studio Art-Printmaking - discontinue program
UC 9663 07F: AAS 3307: Africana spiritual Transformation in the social Sciences (new course)
UC 9664 07F: INDE 4373: Engineering leadership and Entrepreneurism (new course)
UC 9665 07F: INDE 4374: Industrial Supervision (new course)
UC 9666 07F: NUTR 3330: Food Service Systems Management
UC 9667 07F: NUTR 3336: Nutritional Pathophysiology (new course)
UC 9668 07F: NUTR 4346: Research in Obesity and Weight Management (new course)
UC 9670 07F: SCM 4364: Global Supply Chain Operations
UC 9673 07F: B Music with Elective Studies in Teacher Certification degree plan change
UC 9674 07F: MUED 4305: General Music in Elementary and Secondary Schools
UC 9675 07F: MUED 4310: Music in Secondary Schools
UC 9679 07F: Degree Programs Report 10/24/07
UC 9680 07F: Degree Programs Report 11/7/07

UC 9681 07F: SURY 2361: Surveying I
UC 9682 07F: Supply Chain and Logistics Technology Degree Plan changes
UC 9683 07F: Organizational Leadership and Supervision Minor (name change)
UC 9684 07F: B.S. in Organizational Leadership and Supervision (degree plan and name change)
UC 9685 07F: Computer Graphics Minor change
UC 9686 07F: B.S. in Digital Media (new degree)
UC 9687 07F: Mechanical Engineering Technology Degree Plan changes
UC 9688 07F: Construction Management Minor changes
UC 9689 07F: Bioprocessing in Biomedical and Biopharmaceutical Sciences Minor and Bioinfomatics in Biotechnology and Biomedical Sciences Minor (new minors)
UC 9690 07F: Construction Management Degree plan and name change
UC 9691 07F: Biotechnology Degree Plan change
UC 9692 07F: ARCH 4501: Architecture Design Studio VIII
UC 9693 07F: INDS 1360: Visual Thinking (new course)
UC 9694 07F: HDFS 1311: Development of Self-Regulated Learning (new course)
UC 9695 07F: EDUC 4394: Practicum for First-year Teachers
UC 9699 07F: NUTR 4348: Introduction to Nutritional Counseling (new course)
UC 9700 07F: BS in Nutrition: Accredited Dietetics track degree plan change
UC 9701 07F: BS Nutritional Sciences (degree track name change)
UC 9702 07F: BS Nutritional Sciences degree plan change
UC 9706 07F: Computer Applications Technology Minor (new minor)
UC 9707 07F: Gay, Lesbian, Bisexual, and Transgender (GLBT) Studies Minor (new minor)
UC 9708 07F: BA French degree plan changes
UC 9709 07F: BA/BS Psychology degree plan changes
UC 9711 07F: EGRP 2010: Engineering Excellence Workshop I (new course)
UC 9712 07F: EGRP 3010: Engineering Excellence Workshop II (new course)
UC 9713 07F: CUIN 4020: Field Experience-Elementary (1) (new course)
UC 9714 07F: CUIN 4040: Field Experience-Elementary (2) (new course)
UC 9715 07F: CUIN 4060: Field Experience-Elementary (3) (new course)
UC 9716 07F: CUIN 4080: Field Experience-Middle (new course)
UC 9717 07F: CUIN 4081: Field Experience-Secondary (new course)
UC 9718 07F: CUIN 4082: Field Experience-All Level (new course)
UC 9719 08S: Supply Chain Management (name change)
UC 9726 08S: Degree Programs Committee Report 1/29/08
UC 9727 08S: Degree Programs Committee Report 2/6/08
UC 9728 08S: Degree Programs Committee Report 2/13/08
UC 9731 08S: B.S. in Petroleum Engineering (new degree)
UC 9733 08S: Atmospheric Science (new minor)
UC 9736 08S: Degree Programs Committee Report 2/27/08
UC 9737 08S: Degree Programs Committee Report 3/5/08
UC 9743 08S: B.S. in Mathematical Biology (new degree)
UC 9745 08S: Degree Programs Committee Report 3/26/08
UC 9751 08S: Degree Programs Committee Report 4/2/08
UC 9752 08S: Dance Track and Dance Minor degree plan changes
UC 9757 08S: Degree Programs Committee Report 4/30/08

**Ad Hoc Committee -Bylaws:**
UC 9478 07F: UC By-laws Ad Hoc Committee Report 10/11/07
UC 9672 07F: Amended Undergraduate Council By Laws

**Items in boldface type are pending Undergraduate Council approval.**
*Items in red type are tabled for further discussion.
**Items in green type are withdrawn from the agenda.
***Items in brown type are documents that don't need Council action (FYI only).
****Items in blue type are documents that were defeated

# *Preliminary Reports Of Current Projects in Process*

*1. USD Task Force*
*2. Assessment of Critical Thinking*
*3.Assessment of Quantitative Thinking*

**Preliminary Advisory Report to the Undergraduate Council, Advising Coordinators' Team and Faculty Senate.**

**From USD Task Group**
**April 16, 2008**

On February 11, 2008, Dr. Don Foss, Senior Vice President and Provost, established the Task Group on University Studies Division. The Task Group is chaired by Dan Wells and members include: John Antel, Joel Bloom, William Fitzgibbon, Faye Jackson, Frank Kelly, David Mazella, Beth Olsen, Richard Scamell, Agnes DeFranco, Maureen Croft and Ed Hugetz.

**Task Group Charge**

1. Review relevant reports from the Enrollment Management Task Force (EMTF) and the data on the various sub groups that comprise the students of USD.
2. Review solutions to similar problems that have been devised at our sister institutions across the country.
3. By August 31, 2008 propose a plan for reducing the number of students in USD by 90% within two years.

**Driving Forces/Rationale**

Benefit to the Students

- Improve progress toward degree.
- Reduce time in College.
- Increase earning potential by timely graduation.

Benefit to the University

- Increasing graduation rates (National rankings).
- Increase retention rates (Increase enrollment).

**Thus far the Task Group has done the following:**

- Reviewed a history of USD and undeclared students at UH.
- Reviewed relevant reports and information from the EMTF on Undeclared majors
- Reviewed data on USD students, particularly with regard to retention and graduation rates.
- Reviewed "best practices" of 15 peer Urban Research Universities (continuing to collect data).
- Reviewed "best practices" of 22 other Research Universities (continuing to collect data).
- Currently collecting data on current Undeclared student profiles. Including percentages that entered USD via FTIC, transfer, or failed major routes.
- Currently collecting data on what colleges USD students eventually choose for their major.
- Developed a "Framework Plan", to be discussed with various stakeholders.
- Reported preliminary findings and discussed "Framework Plan" with the EMTF.
- Scheduled meetings with the Undergraduate Council, Advising Coordinators' Team and the Faculty Senate to discuss "Framework Plan".

**Preliminary notes and data collected**

1. Over the past 7 years, about 19.2% of UH undergraduates are in USD.
2. For the past three years, an average of 50.9% of USD students are freshman; 29.4% are sophomores; 14.1% juniors; 2.7% seniors.
3. From 2004-2006, an average of 37.7% of FTIC undergraduates are in USD. Also an average of 40.5% of the FTIC undergraduate USD students are in CSP.
4. The percentage of Fall 2006, FTIC students on Academic Notice/Probation at the beginning of Spring 2007 was 31.6% higher for USD students than for Non-USD students (29.7% vs. 20.3%).
5. The percentage of FTIC students on Academic Notice/Probation was 17.5% less for USD students in CSP. This trend was also seen for Non-USD students in CSP albeit to a lesser extent (7.2%).
6. The GPA of students in USD is lower than the GPA of Non-USD students. 17.6% lower for Fall 2005 cohort and 11.5% lower of the Fall 2006 cohort. CSP students have a higher GPA than Non-CSP students.
7. The 1 and 2 year retention rates for full time FTIC students in USD are lower than for those not in USD. From 2003-2005 the 1-year retention rate averages 7.9% lower and the 2-year retention rate averages12.5% lower
8. Graduation rates for full time FTIC students beginning in USD are lower than for those not starting in USD. The 4-year graduation rate averages 48.4% lower; the 6-year graduation rate averages 14.5% lower.
9. Graduation and retention rates for students in USD with 60-75 hours are lower than for Non-USD students. The 1-year retention rate is an average of 16.7% lower; the 2 year combined retention/ graduation rate is an average of 18.3% lower; the 4-year graduation rate is an average of 31.2% lower.
10. An average of 12.1% of the UH transfer students enter USD with 60-75 hours.
11. Graduation and retention rates for transfer students beginning in USD are lower than for those not starting in USD. The 1-year retention rate is 7.8% lower; the 4-year graduation rate is 31.3% lower; the 6-year graduation rate is 22.8% lower.
12. One year retention rates for Fall 2004 transfer students are 16.2% lower for USD students than Non-USD students. Also 28% of Fall 2004 transfer students were in USD.
13. The colleges with the best retention rates were Business and Hotel & Rest. Mgmt. The colleges with the worse retention rates were NSM and Technology.
14. Of the USD students that declared a major between Spring 2005 and Spring 2007 29.5% chose Business and 27.9% chose Liberal Arts and Social Sciences.

Discussions with USD advisors and administrators suggest:

- Many USD students did well in HS and have high SAT scores.
- Many USD students have little incentive to leave USD before 60 hours and sometimes have incentive to remain in USD.
- Many students remain in USD in hopes of improving their GPA to allow enter into selected majors.
- Many students truly do not know what field they wish to go into, and wish to delay the decision making process

**USD Preliminary Framework Plan**

1. To accomplish the task of reducing the number of students in USD to less than 500, the "Undeclared" choice must be removed from Texas Common Application as a possible major.

2. The "Undeclared" status could still be used internally to account for the "relatively few" students acceptable to the University but not to a major of choice. Generally these students are accepted via the "Individual Review" process.

3. These students that are admitted as "Undeclared" would have a limit of 30 hours as "Undeclared". They would have required advising, be required to do block scheduling, and would be required to take a seminar class on career/major choice, etc.

4. Addition advisors and resources will be required to help undecided student make quality choices for their major (both FTIC and Transfer). An interactive web site (for example see Arizona State University) could provide assistance to help guide students to major selection. For transfers we recommend the CAS system be used to assist students in major choices.

5. New major options will be needed to satisfy disenfranchised students that can't get into major of choice or which no current major offers them what they want. Therefore, colleges should be encouraged to consider new major options that could engage these students.

6. No University-wide "General Studies" degree should be offered.

UNIVERSITY OF HOUSTON
OFFICE OF INSTITUTIONAL EFFECTIVENESS

TO: UNDERGRADUATE COUNCIL

RECEIVED APR 11 2008

FROM: LIBBY BARLOW

SUBJECT: ASSESSMENT OF CRITICAL THINKING

DATE: 4/14/2008

On February 21, 2007, the Undergraduate Council approved recommendations from the Core Committee about general education assessment. Among the recommendations in the document is a proposal for Institutional Effectiveness to begin the process of evaluating critical thinking. This memorandum is a progress report on assessment of critical thinking as a core competency.

A faculty group was assembled to develop a rubric for measuring critical thinking among University of Houston undergraduate students according to expectations set by our faculty. Each college was invited to send a representative. Working group members are listed below:

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Bill Nelson, Philosophy
Charles Peters, Mathematics
George Trail, English
Len Trombetta, Electrical and Computer Engineering
Maria Elena Solino, Hispanic Studies
Lori Whisenant, Management

The group completed a pilot project designed to establish a measurement rubric and a viable plan for a full-scale assessment. The rubric, attached, was developed for UH using elements from the Washington State University Scoring Guide for Critical and Integrative Thinking and outcomes identified by the National Council for Excellence in Critical Thinking Instruction as a starting point. The resulting provisional rubric retains many of these elements, edited for UH priorities and multidisciplinary assessment.

The rubric was pilot-tested on samples archived in WebCT of Fall 2007 student work reflecting critical thinking. This avoided delaying the pilot assessment an entire semester while waiting for sufficient data from spring semester courses. With the assistance of Educational Technology staff and after notifying faculty with course material stored in WebCT, we identified 4000-level

courses where the course management system's assignment tool had been activated. The presence of the assignment tool served as an indicator that written work of some kind had been submitted. Instructors for those courses were then contacted to see if they could recommend written work from their courses that might be examined for evidence of students' critical thinking skills.

The rubric and scoring guide, appended, were devised through consideration of best practices and refined through several rounds of benchmark ratings; they articulate a working definition of critical thinking for UH. Significant discussion was devoted to the question of whether a single rubric can appropriately measure critical thinking across disciplines, including the sciences. The committee made little attempt to capture evidence of critical thinking within mathematics courses, at least in part because a parallel pilot for quantitative reasoning assessment is underway and may be a more appropriate measure of critical thinking in that discipline. Based only on the voluntary responses from instructors, papers were collected for critical thinking representing 8 subjects (BIO, DISC, ECE, TELS, POLS, PHAR, CUIN, GENB) and 7 colleges (CLASS, Business, Engineering, Education, Technology, Pharmacy, NSM). After examination of student work from these disciplines, including Engineering and Technology, committee members felt the rubric was successful, a sense that was validated by the consistency of the scoring results. The scoring effort did, however, reveal that not every piece of written work is appropriately scored against a critical thinking rubric. It is assumed that no assignment is designed specifically for students to demonstrate critical thinking alone, but that critical thinking is a background skill demonstrated in a broad range of assignments. However, some assignments may expect students to show just one isolated piece of the critical thinking process, so it was concluded we would be dependent on faculty to identify assignments that could reasonably be expected to display most of the critical thinking process.

The group determined that the next step in the assessment project is to distribute the rubric and scoring guide to the faculty. Broad distribution will provide an opportunity for faculty not engaged in the rubric development process to provide feedback and allow wider discussion of critical thinking before a full-scale assessment is undertaken. When there has been sufficient opportunity for feedback, faculty will be asked to identify written work in which we could expect to find evidence of critical thinking. Assignment information and associated student work will then be collected, using a process that will yield a sample as representative of the undergraduate population as can be achieved using this kind of embedded assessment. The rubric has several categories, each of which will yield a unique set of scores, thereby making it possible to isolate dimensions of critical thinking warranting further examination or reinforcement in the curriculum. It is important to emphasize that the object of interest is critical thinking skills among our students in general, and that results will speak to what our students know or are able to do. Any conclusions drawn from the results would most likely have implications for the core curriculum, but determination of specific actions would be in the hands of the faculty. To that end, scoring will be recorded and analyzed without identification of the student or the instructor.

Effective use of the rubric for scoring is best facilitated by training a group of raters who will engage in norming sessions and will be able see the scoring task through to completion. This could be accomplished by faculty or possibly by doctoral students. The end result of the scoring process may include further refinement of the rubric, which must always reflect UH faculty expectations for critical thinking. Final determination of scoring personnel will be accomplished in consultation with associate deans and department chairs before the end of the 2007-08 academic year. The precise timing of the full-scale assessment will be contingent upon this

decision, but collection of a complete set of data should extend no longer than the next long semester, Fall 2008.

The primary goal of this assessment is to provide undergraduate faculty with reliable information on the status of students' critical thinking skills. The assessment must measure critical thinking as defined by our faculty, and provide actionable results. Since critical thinking is neither taught nor demonstrated in one discipline to the exclusion of others, it is especially important that the assessment development process both solicit input from faculty across campus and communicate back to faculty how expectations for critical thinking as a core competency are defined at the University of Houston. The progress of this pilot assessment to date leaves us well positioned to move forward with a full-scale assessment.

# Provisional University of Houston Critical Thinking Rubric 2008

| *Unacceptable* | *Acceptable* | *Exemplary* |
|---|---|---|
| **Identifies problem, question, or issue** (raises questions, formulated clearly and precisely) | | |
| - Does not attempt to or fails to identify and summarize accurately. | - Summarizes issue, though some aspects are incorrect or confused. Nuances and key details are missing or glossed over. | - Clearly identifies the challenge and subsidiary, embedded, or implicit aspects of the issue. |
| **Presents, interprets, and analyzes relevant information, data, or evidence** (gathers relevant information, using disciplinary concepts to interpret it effectively) | | |
| - Little or no evidence of search, selection or source evaluation skills.<br><br>- Repeats information provided without question or dismisses evidence without adequate justification.<br><br>- Data/evidence or sources are simplistic, inappropriate, or not related to topic. | - Demonstrates adequate skill in searching, selecting, and evaluating sources to meet the information need.<br><br>- Use of evidence is qualified and selective.<br><br>- Discerns fact from opinion and may recognize bias in evidence, although attribution is inappropriate. | - Evidence of search, selection, and source evaluation skills.<br><br>- Examines evidence and its source; questions its accuracy, relevance, and completeness. |
| **Considers context, assumptions, and other perspectives** (thinks open-mindedly, considering multiple sources and options, assessing the credibility and authority of sources) | | |
| - Approach to the issue is in egocentric or socio-centric terms.<br><br>- Analysis is grounded in absolutes, with little acknowledgment of own biases.<br><br>- Engages ideas that are obvious or agreeable. Avoids challenging or discomforting ideas. | - Provides some recognition of context and consideration of assumptions and their implications.<br><br>- Engages challenging ideas tentatively or in ways that overstate the conflict.<br><br>- May dismiss alternative views hastily. | - Analysis acknowledges complexity and bias of vantage and values, although may elect to hold to bias in context.<br><br>- Identifies influence of context and questions assumptions, addressing ethical dimensions underlying the issue.<br><br>- Integrates own and others' ideas in a complex process of judgment and justification.<br><br>- Clearly justifies own view while respecting views of others. |

| **Develops and presents argument, position or hypothesis, with implications** | | |
|---|---|---|
| ***Unacceptable*** | ***Acceptable*** | ***Exemplary*** |
| - Argument, position, or hypothesis is clearly inherited or adopted with little original consideration.<br>- Fails to present and justify or forward argument, position, or hypothesis.<br>- Argument, position, or hypothesis is unclear or simplistic. | - Argument, position, or hypothesis includes some original thinking that acknowledges, refutes, synthesizes or extends other assertions, although some aspects may have been adopted. | - Presents and justifies clearly and in sufficient detail own argument, position, or hypothesis while qualifying or integrating contrary views or interpretations. |
| **Draws meaningful or justified conclusions** (comes to well-reasoned conclusions and solutions, tested against relevant criteria and standards) | | |
| - Fails to identify conclusions, implications, and consequences, or conclusion is a simplistic summary.<br>- Conclusions presented as absolute, and may attribute conclusion to external authority. | - Conclusions consider or provide evidence of consequences extending beyond a single discipline or issue. Presents implications that may impact other people or issues.<br>- Presents conclusions as relative and only loosely related to consequences. Implications may include vague reference to conclusions. | - Identifies, discusses, and extends conclusions, implications, and consequences. Considers context, assumptions, data, and evidence. Qualifies own assertions with balance.<br>- Conclusions are qualified as the best available evidence within the context.<br>- Consequences are considered and integrated. Implications are clearly developed, and consider ambiguities. |
| **Communicates with regard to complex problems** (adapts communication to target audience and disciplinary conventions) | | |
| - Grammar, syntax, or other errors are distracting or repeated. Little evidence of proofreading. Style is inconsistent or inappropriate.<br>- Work is unfocused and poorly organized; lacks logical connection of ideas. Format is absent, inconsistent or distracting.<br>- Few sources are cited or used correctly. | - Errors are not distracting or frequent, although there may be some problems with more difficult aspects of style and voice.<br>- Basic organization is apparent; transitions connect ideas, although they may be mechanical. Format is appropriate although at times inconsistent.<br>- Most sources are cited and used correctly. | - Errors are minimal. Style is appropriate for audience.<br>- Organization is clear; transitions between ideas enhance presentation. Few problems with format or other components of presentation.<br>- All sources are cited and used correctly, demonstrating understanding of economic, legal and social issues involved with the use of information. |

This rubric incorporates substantial portions of the Washington State University Scoring Guide for Critical and Integrative Thinking and outcomes identified for a well cultivated critical thinker by the National Council for Excellence in Critical Thinking Instruction.

| **UH Critical Thinking Assessment:** *Provisional Scoring Guide 2008* | | | | |
|---|---|---|---|---|
| *The order in which the Criteria appear is not intended to suggest sequence.* | not applicable | unacceptable | acceptable | exemplary |
| **Criteria:** | **NA** | **1** | **2** | **3** |
| Identifies **problem, question,** or **issue** (raises questions, formulated clearly and precisely) | | | | |
| Presents, interprets, and analyzes relevant **information, data, or evidence** (gathers relevant information, using disciplinary concepts to interpret it effectively) | | | | |
| Considers **context, assumptions,** and **other perspectives** (thinks open-mindedly, considering multiple sources and options, assessing the credibility and authority of sources) | | | | |
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Appendix material (Pages 7-55) may be found online at:

http://www.uh.edu/undergraduatecouncil/documents/UC_9749_08S.pdf

# Provisional University of Houston Critical Thinking Rubric 2008

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| | | |
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# UH Critical Thinking Assessment:
## *Provisional Scoring Guide 2008*

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UNIVERSITY OF HOUSTON
OFFICE OF INSTITUTIONAL EFFECTIVENESS

**TO:** UNDERGRADUATE COUNCIL

**FROM:** LIBBY BARLOW

**SUBJECT:** ASSESSMENT OF CRITICAL THINKING

**DATE:** 4/15/2008

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The group completed a pilot project designed to establish a measurement rubric and a viable plan for a full-scale assessment. The rubric, attached, was developed for UH using elements from the Washington State University Scoring Guide for Critical and Integrative Thinking and outcomes identified by the National Council for Excellence in Critical Thinking Instruction as a starting point. The resulting provisional rubric retains many of these elements, edited for UH priorities and multidisciplinary assessment.

The rubric was pilot-tested on samples archived in WebCT of Fall 2007 student work reflecting critical thinking. This avoided delaying the pilot assessment an entire semester while waiting for sufficient data from spring semester courses. With the assistance of Educational Technology staff and after notifying faculty with course material stored in WebCT, we identified 4000-level

courses where the course management system's assignment tool had been activated. The presence of the assignment tool served as an indicator that written work of some kind had been submitted. Instructors for those courses were then contacted to see if they could recommend written work from their courses that might be examined for evidence of students' critical thinking skills.

The rubric and scoring guide, appended, were devised through consideration of best practices and refined through several rounds of benchmark ratings; they articulate a working definition of critical thinking for UH. Significant discussion was devoted to the question of whether a single rubric can appropriately measure critical thinking across disciplines, including the sciences. The committee made little attempt to capture evidence of critical thinking within mathematics courses, at least in part because a parallel pilot for quantitative reasoning assessment is underway and may be a more appropriate measure of critical thinking in that discipline. Based only on the voluntary responses from instructors, papers were collected for critical thinking representing 8 subjects (BIO, DISC, ECE, TELS, POLS, PHAR, CUIN, GENB) and 7 colleges (CLASS, Business, Engineering, Education, Technology, Pharmacy, NSM). After examination of student work from these disciplines, including Engineering and Technology, committee members felt the rubric was successful, a sense that was validated by the consistency of the scoring results. The scoring effort did, however, reveal that not every piece of written work is appropriately scored against a critical thinking rubric. It is assumed that no assignment is designed specifically for students to demonstrate critical thinking alone, but that critical thinking is a background skill demonstrated in a broad range of assignments. However, some assignments may expect students to show just one isolated piece of the critical thinking process, so it was concluded we would be dependent on faculty to identify assignments that could reasonably be expected to display most of the critical thinking process.

The group determined that the next step in the assessment project is to distribute the rubric and scoring guide to the faculty. Broad distribution will provide an opportunity for faculty not engaged in the rubric development process to provide feedback and allow wider discussion of critical thinking before a full-scale assessment is undertaken. When there has been sufficient opportunity for feedback, faculty will be asked to identify written work in which we could expect to find evidence of critical thinking. Assignment information and associated student work will then be collected, using a process that will yield a sample as representative of the undergraduate population as can be achieved using this kind of embedded assessment. The rubric has several categories, each of which will yield a unique set of scores, thereby making it possible to isolate dimensions of critical thinking warranting further examination or reinforcement in the curriculum. It is important to emphasize that the object of interest is critical thinking skills among our students in general, and that results will speak to what our students know or are able to do. Any conclusions drawn from the results would most likely have implications for the core curriculum, but determination of specific actions would be in the hands of the faculty. To that end, scoring will be recorded and analyzed without identification of the student or the instructor.

Effective use of the rubric for scoring is best facilitated by training a group of raters who will engage in norming sessions and will be able see the scoring task through to completion. This could be accomplished by faculty or possibly by doctoral students. The end result of the scoring process may include further refinement of the rubric, which must always reflect UH faculty expectations for critical thinking. Final determination of scoring personnel will be accomplished in consultation with associate deans and department chairs before the end of the 2007-08 academic year. The precise timing of the full-scale assessment will be contingent upon this

decision, but collection of a complete set of data should extend no longer than the next long semester, Fall 2008.

The primary goal of this assessment is to provide undergraduate faculty with reliable information on the status of students' critical thinking skills. The assessment must measure critical thinking as defined by our faculty, and provide actionable results. Since critical thinking is neither taught nor demonstrated in one discipline to the exclusion of others, it is especially important that the assessment development process both solicit input from faculty across campus and communicate back to faculty how expectations for critical thinking as a core competency are defined at the University of Houston. The progress of this pilot assessment to date leaves us well positioned to move forward with a full-scale assessment.

# General Education Assessment of Quantitative Reasoning at the University of Houston

## Introduction

Quantitative reasoning is an integral part of the core curriculum at the University of Houston and a key focus of the general education assessment effort. By choosing to add this institutionally designated option to the state mandated core curriculum, the university recognizes the importance of student learning in this area.

Quantitative reasoning is a multi-faceted construct which is owned by several disciplines housed on our university campus. While an assessment framework that encompasses more than one discipline is warranted, a decision was made to implement a pilot study of quantitative reasoning in one discipline to test an assessment protocol and to determine the feasibility of implementing this protocol on a larger scale. At the University of Houston, mathematics lends itself well to such a project in part because math reasoning is a good proxy for quantitative reasoning but also because math tends to have well-defined learning objectives and student performance data.

In mathematics, quantitative reasoning is entwined with student competencies. If one were to consider Bloom's taxonomy, students must acquire knowledge before they can *apply* knowledge. Similarly, reasoning in mathematics is possible only after students have attained pre-reasoning skills, which include axiomatic knowledge (i.e., math rules). Therefore, the pilot study examined student outcomes with respect to not only reasoning skills but also the foundational learning that enables reasoning as defined by the math curriculum.

The assessment strategy for math competencies at the University of Houston reflects four general learning objectives adopted from the core curriculum guidelines established by the Texas Higher Education Coordinating Board (THECB) (Texas Higher Education Coordinating Board, 2008). Stated in terms of what students are expected to do, these objectives are:

- To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real world problems
- To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically
- To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.
- To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences from them

These learning objectives are consistent with the University of Houston core curriculum reasoning requirement that includes "building students' skills in mathematical and logical thinking" (University of Houston, 2008).

In order to assess student progress, the four learning objectives were mapped to four lower division courses.

- MATH 1310: College Algebra
- MATH 1313: Finite Mathematics with Applications
- MATH 1314: Calculus for Business and the Life Sciences
- MATH 1330: Pre-calculus

The rationale for choosing these particular courses is that a high proportion of undergraduates enroll in these classes as part of their degree plan. Thus, these courses provide the most appropriate data from which to study the acquisition of quantitative reasoning skills. (The reader is reminded that the quantitative reasoning construct is operationalized for the purposes of this pilot to be student work that reflects mathematical reasoning.)

## Assessment Structure and Definitions

In order to assess the extent of student learning in math, the Mathematics Department collaborated with the University of Houston - Office of Institutional Effectiveness to identify specific courses and data items appropriate for the task. These courses and items represent an initial "pilot" framework that will guide the long term assessment strategy in this area.

### I. Learning Objectives and Assessment Items

**Table 1** maps specific exam items in four undergraduate math courses against the general education objectives for math competency. The selected items were reviewed by the math department – in collaboration with institutional research and assessment personnel – for their relevance and appropriateness to the specified learning objectives. It is important to note that a single test item may address more than one objective. For example, in the Table 1 the column for MATH 1330 contains two references to Item 4 from Test 2, addressing Objective 2 and Objective 4.

**Table 1: Assessment Items by Course and Learning Objective***

| Learning Objectives | Course | | | |
|---|---|---|---|---|
| | MATH 1310 | MATH 1313 | MATH 1314 | MATH 1330 |
| **Objective 1**: To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real world problems | Test 2: **15**, **14** | Test 2: 6<br>Test 3: 2 | Test 2: 2<br>Test 3: 4, **9**<br>Test 4: 1, 7, 8 | Test 3: 3<br>Test 4: 2, 9 |
| **Objective 2**: To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically | Test 4: 9, **10**, **11** | Test 2: **13**<br>Test 3: 1, 3 | Test 3: 5<br>Test 4: 2 | Test 2: 4, 10<br>Test 4: **13** |
| **Objective 3**: To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments | Test 3: 6<br>Final: 3 | | Test 3: **9** | Test 3: **14**<br>Test 4: 5, 6, **13** |
| **Objective 4**: To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences for them | Test 3: 8<br>Test 4: 7 | Test 2: 5, **13**<br>Test 3: 5, 12 | Test 3: 3, **9** | Test 2: 4, **16**<br>Test 3: 12<br>Test 4: 5, 6 |

* Bold items represent free response questions

## II. Item Type and Performance Levels

Exams represent the majority of assessments utilized by instructors in lower division mathematics courses. Therefore, the assessment strategy described here utilizes two types of data items: multiple choice (MC) and free response.

*Item Difficulty*

Math instructors and assessment staff routinely review the exams to evaluate the quality of the questions. Instructors also jointly determine item difficulty, which is rated on a three point scale of A, B, & C where "A" is most difficult and "C" is least difficult. In practical terms, an "A" level item requires "A" level understanding and skill, and a student earning an "A" in the class would be expected to answer the question correctly. A "B" level item requires "B" level comprehension and so on. Exams are constructed to have a mixture of A, B and C level questions so as to delineate differing levels of student understanding of concepts. As a result, interpretation of aggregate student performance on a given item must take item difficulty into account since the percentage of students answering a question correctly will likely vary depending on the difficulty of the questions. The item difficulty level is incorporated into the performance standards as illustrated in the following sections.

*Performance Standards*

The performance standards for the mathematics exams are derived from patterns of student outcomes in these courses from the past year. In short, the expected performance benchmark for A, B and C level questions was set by the average percent of students receiving

A's, B's and C's in the respective math courses during the previous year. **Table 2** provides the benchmarks for student performance relative to test item difficulty.

**Table 2: Minimum Performance Benchmarks by Course and Item Difficulty**

| | Courses | | | |
|---|---|---|---|---|
| Item Difficulty Level | Math 1310 | Math 1313 | Math 1314 | Math 1330 |
| A Level | 22% | 22% | 21% | 16% |
| B Level | 44% | 42% | 44% | 34% |
| C Level | 60% | 60% | 59% | 52% |

In terms of multiple choice items, the figures above represent the minimum acceptable percentage correct for a given item difficulty. For example, if 61% of students in Math 1310 answer a "C" level item correctly, they will have met the standard of performance for that item.

The rationale for free response items is similar. In this case, the percentages from Table 2 indicate the minimum group performance expectation for each free response item defined as the proportion of responses that are "acceptable" or better. For instance, 42% of students in Math 1313 would be expected to provide an "acceptable" or "exemplary" answer to a "B" level free response item. In Math 1330, the group performance expectation would be 34% for the same item

*Performance Levels for Multiple Choice Items*

Performance standards for each type of item are slightly different and bear additional discussion. Standards for multiple choice items are applied to aggregate student results. Put simply, did students as a group do well enough on an item to demonstrate adequate learning at the program level? As mentioned previously, the performance standards are divided into three tiers to account for item difficulty. If an item represents "A" level content, then the percentage of students expected to answer that item correctly would be lower relative to the expectation for a "C" level question.

*Performance Levels for Free Response Items*

While multiple choice items primarily result in binary outcomes (correct vs. incorrect), free responses require a more complex grading system. Each free response item is composed of multiple parts and points are awarded cumulatively. In other words, success on later components of the problem is dependent on how well students perform on earlier stages. The more a student knows and understands the course material, the higher the likelihood of the student answering a given item accurately and completely. Points are assigned accordingly. Since the total point values for each question different slightly depending on the number of item components, the math department has set specific performance cut points for each item. Regardless of the total number of points, performance on each item is expressed in terms of four performance levels. These are:

**Needs Improvement**: Student is lacking the prerequisite skills necessary to take the first step towards solving the problem.

**Basic:** Student has demonstrated that he/she has the pre-requisite skills to set up the problem and/or take the first step towards solving the problem.

**Acceptable:** Student has demonstrated sufficient knowledge to solve the problem.

**Exemplary:** Student has completed every step required to solve the problem correctly and has reported the answer correctly.

Although there are four possible student performance levels, the critical cut score is the point at which students are classified as "acceptable" since this represents the minimum math target outcome for these items. It is reasonable to assume that difficult items will have fewer students attaining acceptable status compared to less difficult items. Therefore, different cut points are set based on the three item difficulty levels (e.g. A, B, and C). The actual performance standards (i.e. minimum percentage needed for each performance level) are based on student outcome patterns in previous courses.

## Results

The results of the item analysis are organized by learning objective. This allows us to address individual objectives in terms of student performance on the appropriate items relative to the standards. The columns titled "% Correct" and "% Acceptable or higher" provide the actual student assessment results while a check in the "Met Standard" column indicates whether the overall aggregate results meet the threshold of acceptable performance as described in the previous section when factoring in item difficulty. Please note that item difficulty is indicated by a letter after each item in the tables (e.g. Test 2:15 (B)).

***Objective 1: To apply arithmetic, algebraic, geometric, higher-order thinking, and statistical methods to modeling and solving real world problems***

| Course | MC Items | % Correct | Met Standard | Free Response Items | % Acceptable or higher | Met Standard |
|---|---|---|---|---|---|---|
| MATH 1310 | | | | Test 2: 15 (B) | 81% | ✓ |
| | | | | Test 2: 14 (A) | 67% | ✓ |
| MATH 1313 | Test 2: 6 (C) | 93% | ✓ | | | |
| | Test 3: 2 (C) | 49% | - | | | |
| MATH 1314 | Test 2: 2 (B) | 52% | ✓ | | | |
| | Test 3: 4 (C) | 95% | ✓ | | | |
| | Test 4: 1 (B) | 85% | ✓ | Test 3: 9 (A) | 68% | ✓ |
| | Test 4: 7 (A) | 60% | ✓ | | | |
| | Test 4: 8 (B) | 62% | ✓ | | | |
| MATH 1330 | Test 3: 3 (C) | 65% | ✓ | | | |
| | Test 4: 2 (C) | 43% | - | | | |
| | Test 4: 9 (A) | 49% | ✓ | | | |

***Objective 2: To represent and evaluate basic mathematical information verbally, numerically, graphically, and symbolically***

| Course | MC Items | % Correct | Met Standard | Free Response Items | % Acceptable or higher | Met Standard |
|---|---|---|---|---|---|---|
| MATH 1310 | Test 4: 9 (A) | 66% | ✓ | Test 4: 10 (B) | 51% | ✓ |
| | | | | Test 4: 11 (B) | 32% | - |
| MATH 1313 | Test 3: 1 (C) | 81% | ✓ | Test 2: 13 (B) | 68% | ✓ |
| | Test 3: 3 (C) | 74% | ✓ | | | |
| MATH 1314 | Test 3: 5 (B) | 46% | ✓ | | | |
| | Test 4: 2 (A) | 96% | ✓ | | | |
| MATH 1330 | Test 2: 4 (B) | 56% | ✓ | Test 4: 13 (A) | 24% | ✓ |
| | Test 2: 10 (A) | 45% | ✓ | | | |

***Objective 3: To expand mathematical reasoning skills and formal logic to develop convincing mathematical arguments.***

| Course | MC Items | % Correct | Met Standard | Free Response Items | % Acceptable or higher | Met Standard |
|---|---|---|---|---|---|---|
| MATH 1310 | Test 3: 6 (C) | 81% | ✓ | | | |
| | Final: 3 (C) | 93% | | | | |
| MATH 1314 | | | | Test 3: 9 (A) | 68% | ✓ |
| MATH 1330 | Test 4: 5 (A) | 54% | ✓ | Test 3: 14 (A) | 52% | ✓ |
| | Test 4: 6 (A) | 54% | ✓ | Test 4: 13 (A) | 24% | ✓ |

***Objective 4: To interpret mathematical models such as formulas, graphs, tables and schematics, and draw inferences for them***

| Course | MC Items | % Correct | Met Standard | Free Response Items | % Acceptable or higher | Met Standard |
|---|---|---|---|---|---|---|
| MATH 1310 | Test 3: 8 (B) | 71% | ✓ | | | |
| | Test 4: 7 (C) | 74% | ✓ | | | |
| MATH 1313 | Test 2: 5 (C) | 79% | ✓ | Test 2: 13 (B) | 68% | ✓ |
| | Test 3: 5 (C) | 87% | ✓ | | | |
| | Test 3: 12 (A) | 39% | ✓ | | | |
| MATH 1314 | Test 3: 3 (B) | 46% | ✓ | Test 3: 9 (A) | 68% | ✓ |
| MATH 1330 | Test 2: 4 (B) | 56% | ✓ | Test 2: 16 (B) | 35% | ✓ |
| | Test 3: 12 (A) | 78% | ✓ | | | |
| | Test 4: 5 (A) | 54% | ✓ | | | |
| | Test 4: 6 (A) | 54% | ✓ | | | |

In sum, results indicate that students are meeting the general education benchmarks for acceptable performance in mathematics. Outcome data for each objective suggest that students are able to demonstrate learning at a level consistent with the goals of the math program. The range of item difficulty provides additional insight regarding the depth of knowledge acquired by students across the available courses.

## Discussion

The assessment process described in this report represents the first phase of a multi-year strategy to refine how the university evaluates student progress in quantitative reasoning skill acquisition. The results of this study will lead to a two-pronged assessment strategy. First, there will becontinued development and refinement of the general math component of core curriculum assessment. Secondly, the university will expand the scope of quantitative reasoning assessment to include the other university disciplines that own the responsibility for teaching these skills. Each of these projects will be discussed in turn.

*General Math Assessment – Next Steps*

Mathematics faculty will undertake a review of these objectives to determine whether these should be revised to better address our students' needs. The first stage of the review (FY 2008/2009) will utilize instructors from the four courses described in this report. However, the math department will continue to map exam items to the appropriate objectives for evaluative purposes only making changes when appropriate and consistent with the overall assessment approach.

In FY 2009-10, the scope of assessment will be expanded to incorporate additional courses. This will provide a wider net for gauging general student learning in math. It is likely that the first course to be added to this process is MATH 2311: Introduction to Probability and Statistics. The class provides foundational knowledge in an area of mathematics that permeates everyday life and is in keeping with mission of the university to create quantitatively literate graduates.

*Quantitative Reasoning – Next Steps*

Within the framework of the university curriculum, mathematics and quantitative reasoning represent parallel learning paths. As discussed previously, quantitative reasoning is not owned by a single discipline. Quantitative reasoning skills may be learned in fields such as philosophy, computer science, and music. This pilot study provides a springboard for interdisciplinary discussions with respect to quantitative reasoning at the University of Houston. The ultimate goal is to develop a general education assessment protocol that incorporates the relevant skills and knowledge from each of these disciplines into a comprehensive continuous improvement plan.

## References

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