



Faculty Senate • http://www.uwrf.edu/faculty_senate/welcome.html

Senators: Chair – Wes Chapin , Vice Chair – Ogden Rogers, Secretary – John Heppen, Executive Committee – Glenn Potts, Brenda Boetel

Date: October 4, 2006
To: Faculty Senate and University Community
From: Wes Chapin, Faculty Senate Chair
Subject: Agenda for Faculty Senate Meeting October 4, 2006

The 2006-2007 Faculty Senate will meet on Wednesday October 4, 2006 at 3:40pm in the Regents Room of Hagestad Student Center. Faculty Senators who cannot attend should arrange for a substitute and notify John Heppen at john.heppen@uwrf.edu

Agenda October 4, 2006

Call to Order

Seating of Substitutes
Recognition of Invited Guests
Approval of Minutes from September 20, 2006

Reports

Unfinished Business: none

New Business:

Proposal 1: Motion from the Faculty Senate Executive Committee to adopt a resolution on the Role of Faculty Governance in Personnel Matters: Criminal Background Checks for Employees.

Proposal 2: Motion from the Faculty Senate Executive Committee to designate that the official catalog medium for the 2007-09 period be online portable document format (pdf) or comparable formats (e.g. html); catalogs must be available in their entirety; academic terms (e.g. fall semester 2007) will serve as the official start dates for all policy and programmatic changes for each catalog period; each catalog term must be archived, and although the online catalog is the only official version, this designation does not preclude the publication and/or use of supplemental materials including, but not limited to, unofficial hardcopies of the official online catalog.

Proposal 3: Motion from the Faculty Senate Executive Committee to adopt the following resolution: Opposition to the Amendment to the Wisconsin Constitution, now on the ballot for the November 2006 election, to ban gay marriage and civil unions.

Proposal 4: Motion from the Faculty Senate Executive Committee to replace Peter Rayne as chair of the Multi-Cultural Diversity Advisory Committee with Kristine Butler.

Proposal 5: Motion from Academic Policy and Program Committee to approve a new emphasis in Sustainable Agriculture in the Crop and Soils Science major.

Minutes of the UWRF Faculty Senate for September 20, 2005

Vol. 31 No. 5

Members:

Representation	Term Expires 2007	Term Expires 2008	Term Expires 2009
<i>CAFES</i>	Bob Baker	Laine Vignona	
<i>CAS</i>	Wes Chapin	Patricia Berg (Sandy Ellis)	Peter Johansson
	Larry Harred	John Heppen	
	Barbara Werner		
<i>COEPS</i>		Ogden Rogers	Michael Miller
<i>CBE</i>			Glenn Potts
<i>4th Division</i>	Cara Rubis	Gregg Heinselmann	Sarah Egerstrom
<i>At Large</i>		Brenda Boetel (Jr)	Melissa Wilson (Jr)
	Karl Peterson (Jr)	Dawn Hukai (Sr)	John Walker (Sr)
	Nan Jordahl (Sr)		Terry Ferris (Sr)
	Charlie Hurt*		

* Chancellor's Designee

** Absent

() Substitute

Call to Order: W. Chapin called the meeting to order at 3:40 p.m.

Seating of Substitutes: Sandy Ellis for Patricia Berg.

Guests: Jim Madsen Faculty Salary Committee; David Trechter Recruitment, Admission, and Retention Committee; Alan Tuchtenhagen Director of Admissions; Connie Foster.

Approval of Minutes: Bob Baker moved and Larry Harred seconded the approval of the minutes from September 13, 2006. The minutes were approved by general consent.

Chair's Report:

- Wes Chapin reported that next meeting guests will address strategic planning. Wes Chapin also reported that we will need to have a motion designating what is the official medium of the University Catalog, since there exists conflicting

information on that subject. Wes Chapin reported that there will be a need to identify members eligible for Faculty Senate and that a reapportionment of Faculty Senate seats will be needed.

Vice Chair's Report:

- Ogden Rogers reported that nominations have closed for the termination committee and senator at-large (Sr.) and he will start the election process soon.

Other Reports:

- David Trechter from Recruitment, Admissions, and Retention reported that the committee has had one meeting. David Trechter reported that the committee would like to review the status of the four-contract and the retention rates of students based on their class schedule.
- Alan Tuchtenhagen, Director of Admissions, reported that Fall Enrollment numbered 6,105 using CDR numbers and 6,245 using internal numbers. Using CDR this was an increase of 104 students from last year with 1,296 freshman up 87 from last year and 354 transfer students 69 fewer than last year. Overall enrollment is up 2%.
- Jim Madsen, Faculty Salary Committee, reported on the Exemplary Service Awards money (Star Awards Money) and addressed the issue of whether or not the money would be tied to the merit process and a one-time award or part of base salary. Jim Madsen reported that the committee will address that issue fully.

Unfinished Business: none

New Business:

Proposal 1: A motion from the Faculty Senate Executive Committee to accept the resignation of Brian Schultz from the Faculty Senate Assessment Committee and appoint Joy Benson to complete Brian Schultz's term was made by Ogden Rogers and seconded by Karl Peterson. The motion passed by general consent.

Proposal 2: A motion from the Faculty Senate Executive Committee to accept the resignation of Charlie Corcoran from the General Education Committee and appoint Brian Schultz to complete Charlie Corcoran's term was made by Peter Johansson and seconded by Ogden Rogers. The motion passed by general consent.

Proposal 3: A motion from the Faculty Senate to affirm the UWRF Strategic Planning Goals was made by Bob Baker and seconded by Ogden Rogers. Laine Vignona offered a friendly amendment to change the wording of **Goal 7: Employ Sustainability Principles** to **Employ Sustainable Principles** which was accepted. The motion passed unanimously.

Proposal 4: A motion to confirm the ad hoc strategic planning committees was made by John Heppen and seconded by Bob Baker. Terry Ferriss made a motion to amend the main motion to include an additional faculty member to the Campus Planning Strategic Planning Work Group from the College of Agriculture, Food, and Environmental Sciences. The motion was seconded by Laine Vignona. Concerns were expressed about proper faculty representation on the SPWGs, especially the Campus Planning SPWG. The amendment lost by a vote of 8 in favor, 10 opposed, and 2 abstentions. The main motion to confirm the ad hoc strategic planning committees passed by a vote of 17 in favor and 3 opposed.

Adjournment: Ogden Rogers moved and Karl Peterson seconded the motion to adjourn at 4:46pm.

Respectfully Submitted,

John Heppen
Secretary of the UW-River Falls Faculty Senate

**Proposed draft of Faculty Senate Resolution
Regarding
The Amendment to Ban Gay Marriage and Civil Unions**

Whereas the Faculty Senate of the University of Wisconsin-River Falls wishes to express our opposition to the Amendment to the Wisconsin Constitution, now on the ballot for the November 2006 election, to ban gay marriage and civil unions;

And whereas this amendment, if approved, will cause harm to gay, lesbian, bisexual, and transgender faculty and staff at the University of Wisconsin-River Falls because of its provisions that could eliminate all same sex partner benefits and other basic rights of same sex partners, and will cause pain to both those faculty and staff and their straight supportive allies;

And whereas this amendment, if approved, will cause harm to the University of Wisconsin System because of the potential departure of valued employees of the system and increased difficulty in recruiting new faculty;

Be it resolved that the Faculty Senate of the University of Wisconsin-River Falls opposes this Amendment to the Wisconsin Constitution.

**Proposed draft of Faculty Senate Resolution
Regarding
The Role of Faculty Governance in Personnel Matters: Criminal Background
Checks for Employees**

The University of Wisconsin – River Falls Faculty Senate,

Recognizing that s. 36.13 (3), Wisconsin Statutes, provides:

RULES. The board and its several faculties after consultation with appropriate students shall promulgate rules for tenure and probationary appointments, for the review of faculty performance and for the nonretention and dismissal of faculty members. Such rules shall be promulgated under ch. 227 [Wisconsin Statutes]; and,

Guided by s. 36.09 (4), Wisconsin Statutes, that indicates:

the faculty shall have the primary responsibility for academic and educational activities and faculty personnel matters,

Taking into account that UW-System President Reilly will recommend to the Board of Regents, in December 2006, a policy on criminal background checks for all new hires,

Noting with approval that Alan N. Crist, UW-System Associate Vice President has requested that prior to the implementation of a System-wide policy each institution will

consult with governance groups as appropriate and have your comments and your institution's draft implementation policy back to me by November 1, 2006,

Aware that time is of the essence,

1. *Charges* the Faculty Welfare and Personnel Policies Committee with the responsibility of recommending to the Faculty Senate appropriate language regarding any faculty personnel policy changes, including criminal background checks;
2. *Draws the attention* of the University's Faculty to the issue and requests that they convey comments with due haste regarding possible criminal background checks for current and/or potential personnel to the Faculty Welfare and Personnel Policies Committee and/or the Faculty Senate;
3. *Welcomes* the opportunity to fulfill its obligations under the aforementioned statutes to recommend policy changes.

August 4, 2006

(VIA EMAIL ONLY)
MEMORANDUM

TO: Chancellors

FROM: Alan N. Crist, Associate Vice President

RE: UW System Criminal Background Check Policy

The University of Wisconsin System is committed to ensuring the safety and security of our students, faculty, staff, as well as the security and integrity of the university's many valuable resources. One practice that aids in providing a safe and secure community is the use of criminal background checks for prospective employees.

In consideration of a specific recommendation submitted to the Board of Regents in the Legislative Audit Bureau's February 2006 Letter Report and based on an analysis of current practices of our own institutions, a look at the practices of our peers nationally, and a review of best business practices, President Reilly will recommend to the Board of Regents, in December 2006, a policy on criminal background checks for all new hires. Such a policy will ensure that all prospective employees are treated consistently and equitably, and it will underscore our commitment to providing our students, faculty and staff, as well as the countless citizens of Wisconsin we serve, with academic communities that are safe and secure.

In pursuit of safe and secure university communities, UW System officials will continue to adhere to due process and nondiscrimination protections that are afforded to applicants for university employment. Wisconsin's Fair Employment Act prohibits discrimination based on a conviction record unless the circumstances of the conviction are "substantially related" to the job in question.

The attached draft document establishes a UW System policy of conducting criminal background checks on all new hires in the UW System and provides direction and guidance on:

- the categories of jobs that may have more restrictive requirements for criminal background checks, such as periodic checks of current employees, as required by State or Federal law,
- a framework for the expansion of institutional policies and practices to include all university jobs that are not explicitly covered by state or federal law,
- a basis for institutional exceptions for very short term, contractor, student, and unpaid employees depending on the nature of the duties, and
- a timeline for the review and adoption of institutional policies and practices pursuant to this comprehensive UW System policy statement.

As was agreed in President Reilly's Administrative Staff meeting on July 28, before finalizing our policy recommendation for the Board of Regents at the December 2006 meeting, I ask that you consult with governance groups as appropriate and have your comments and your institution's draft implementation policy back to me by November 1, 2006. Let me be clear on what I am asking you to do. As President Reilly indicated to you in his letter of June 26, 2006, he has already determined, for the reasons stated above, that it is in the best interest of the UW System to establish a policy of criminal background checks for all new hires. At this time, I am asking for comments and suggestions from you and your governance groups to ensure that the policy we establish provides for fair and consistent implementation across the UW System.

The attached draft Board of Regents' policy will assist each UW System institution and UW System Administration in establishing criminal background check policies and practices that conform to this draft policy and to all applicable State and Federal laws that concern criminal background checks.

Again, please send your comments and suggestions on this draft policy document and your draft implementation policy to me via email, acrist@uwsa.edu, by November 1, 2006.

Thank you.

Attachment

cc: President Reilly
President's Cabinet
Provosts
AA/EEO Officers
Academic Personnel Officers
Human Resource Directors

University of Wisconsin System Policy Statement on Establishing and Implementing Criminal Background Check Policies and Practices

The University of Wisconsin System is committed to ensuring the safety and security of our students, faculty, staff, and all those we serve and the security and integrity of the university's many valuable resources. One practice that aids in providing a safe and secure community is the use of criminal background checks for prospective employees.

In pursuit of safe and secure university communities, UW System officials will continue to adhere to due process and nondiscrimination protections that are afforded to applicants for university employment. Wisconsin's Fair Employment Act prohibits discrimination based on conviction record unless the circumstances of the conviction are "substantially related" to the job in question. Thus, with respect to criminal convictions, a university employer may refuse to hire an applicant on the basis of a criminal conviction if and only if the circumstances of the conviction substantially relate to the particular job. (See section 111.335, Wis. Stats.)

In consideration of a specific recommendation submitted to the UW System Board of Regents in the Legislative Audit Bureau's February 2006 Letter Report, System Administration officials explored various options in anticipation of the adoption of a new systemwide policy on criminal background checks for newly hired university employees. Under Wisconsin and Federal law, university employers must conduct criminal background screens of prospective employees for certain jobs. Extensive discussions the past few months focused on whether a new UW System criminal background check policy should be expanded to cover jobs not already required by state or federal law.

After considering the feedback and advice from interested parties, the UW System President determined that the most prudent course of action is to recommend to the Board of Regents a comprehensive policy requiring all UW System institutions to conduct criminal background checks on all new hires. Such a policy will ensure that all prospective employees are treated consistently and equitably, and it will underscore our commitment to providing our students, faculty and staff, as well as the countless citizens of Wisconsin we serve, with academic communities that are safe and secure.

The remainder of this policy document: (i) identifies the specific types of university jobs for which criminal background checks are already required by law; (ii) provides a Board of Regents framework for the expansion of institutional policies and practices to include all university jobs that are not explicitly covered by state or federal law; and (iii) sets a timeline for the review and adoption of institutional policies and practices pursuant to this comprehensive UW System policy statement.

Categories of University Jobs for which Criminal Background Checks are Required by State or Federal Law

- Day Care Workers and Other Caregiver Employees

University of Wisconsin institutions that employ caregivers in day care centers must comply with the Wisconsin Caregiver Law and conduct criminal background checks on all prospective day care employees. Pursuant to Chapter 48 of the Wisconsin Statutes, the Wisconsin Department of Health and Family Services established a process that university employers must use to check the criminal backgrounds of all prospective day care employees. Moreover, University of Wisconsin institutions that employ caregivers in other university facilities or service units that provide direct care or treatment services to clients and that are required by law to be licensed, certified by, or registered with a State of Wisconsin regulatory agency, must comply with the Wisconsin Caregiver Law and conduct criminal background checks on all prospective caregiver employees.

- Law Enforcement and Security Workers

University of Wisconsin institutions are required to conduct criminal background checks of prospective police, security, and protective service employees, as is standard practice in the law enforcement field. All prospective university law enforcement employees are fingerprinted and undergo an extensive FBI background screening prior to their employment.

- Positions with Access to Funds or with Fiduciary Responsibilities

Wisconsin Act 350, enacted April 18, 2006, amended Chapter 230 of the Wisconsin Statutes and requires public university employers to conduct criminal background checks of applicants for positions that involve “fiduciary responsibility” and duties “which include access to funds administered” by the university. In its May 4, 2005 fiscal estimate narrative, Office of State Employment Relations (OSER) indicated that “positions that could be covered ... include those in the following functional areas: accounting, auditing, financial management, accounts receivable, accounts payable, procurement, retail operations, tax and fee collections, payroll and handling of cash and checks.”

- Positions with Access to Hazardous Agents or Materials

University of Wisconsin institutions will conduct criminal background checks on prospective employees who will handle and work with hazardous agents or materials in campus labs, buildings or storage facilities, pursuant to the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 and the Agricultural Protection Act of 2002. These federal laws require entities to register with either the U.S. Departments of Health and Human Services or Agriculture if they “possess, use or handle biological agents or toxins that could pose a severe threat to public health and safety; to animal or plant health; or animal or plant products.” As part of the requisite registration, these entities must conduct “security risk assessments,” which include the fingerprinting and FBI screening of individuals who will handle the select agents.

Effective January 1, 2007, Criminal Background Checks Will Be Required for Prospective Employees for All University of Wisconsin System Jobs

With possible discretionary exceptions noted on the following paragraph, pursuant to this UW System policy statement, University of Wisconsin employers will conduct criminal background checks of prospective employees for all university jobs. Criminal background checks shall be conducted on all candidates recommended for hire, either prior to the university's extension of an offer of employment, or as part of an offer of employment that is made contingent upon a successful criminal background check outcome.

This UW System policy statement deliberately allows institutional experts the discretion to determine whether the following employee and non-employee groups will be covered by an institution's specific criminal background check policy: (1) temporary or limited term employees; (2) positions to be filled by a vendor or contractor; (3) hourly student employees; (4) interns; and, (5) unpaid volunteers who serve the university in a capacity with duties similar to those of employees. Institutional officials should weigh all relevant factors as they consider whether prospective candidates for these employee and non-employee groups will be required to undergo criminal background checks. Factors to consider include the level of direct supervision and guidance provided to such individuals and the sensitivity of and or legal requirement for a background check given the nature of the duties of the job.

Guidance on Implementing Criminal Background Checks

In-House Criminal Background Checks and Vendor Services

The Wisconsin Department of Justice, Crime Information Bureau (CIB) offers a web-based database tool that provides users with information on criminal records created and maintained in Wisconsin. In-house staff can be trained to use the CIB record system to conduct background checks of prospective employees. As a state agency, the cost for a university official to use the CIB database is \$5 per search.

A criminal background check that is limited to Wisconsin records, however, might fail to uncover a prospective employee's criminal records from other jurisdictions. Other state jurisdictions offer electronic database searching of their criminal records, usually for a fee of \$5 to \$10 per search. The time and costs associated with having to conduct multiple state searches, using one database tool after another, might rule out the deployment of in-house staff for conducting comprehensive criminal background checks of more than a few individuals. Moreover, in-house staff could not readily gain access to the relevant criminal records from "closed record" states.

As a growing number of vendors and private firms offer more comprehensive background checking services to employers, University of Wisconsin institutions should consider the costs and benefits of purchasing such a vendor service. Most vendors will guarantee that their criminal record searches will encompass relevant records from all

possible jurisdictions, and the cost for their comprehensive search services presently range from \$40 to \$100 per individual search.

If a university employer retains a vendor to perform criminal background checks on prospective employees, university officials will have certain additional duties under the federal Fair Credit Reporting Act.¹

Application of the “Substantial Relationship Test” and Security of Criminal Background Check Records

Each University of Wisconsin institution shall establish procedures for verifying information that a criminal background check uncovers, and for applying the substantial relationship test to the information received about a prospective employee. The procedures should identify the institutional officials who will be consulted to apply the test to the facts and circumstances under review. The procedures should also describe how records gathered and documents prepared in furtherance of a criminal background check will be maintained confidentially and securely, separate from other personnel records. Moreover, the procedures should identify the officials who will serve as custodian of criminal background check record files.

When a prospective employee’s criminal record is verified, university officials will have to apply the relevant legal standard and determine whether the facts and circumstances of the individual’s conviction has a substantial relationship to the duties and responsibilities of the job. The Wisconsin Department of Workforce Development, Equal Rights Division, who has responsibility for enforcing the Wisconsin Fair Employment Act, has issued the following advice regarding the substantially related test:

“The law does not specifically define it. The “substantially related” test looks at the circumstances of an offense, where it happened, when, etc. - compared to the circumstances of a job - where is this job typically done, when, etc. The more similar the circumstances, the more likely it is that a substantial relationship will be found. The legislature has determined that certain convictions are substantially related to employment in child and adult care giving programs regulated by the Department of Health and Family Services.”

¹ The Federal Fair Credit Reporting Act (FCRA), 15 U.S.C. s 1681 et seq, defines a company that conducts criminal background checks for an employer to be a “consumer reporting agency,” or a “CRA.” An employer that acquires a criminal history report from a CRA has certain duties under the FCRA. At the outset, the employer must obtain an applicant’s written permission before obtaining a criminal history report from a CRA. In addition, before it can refuse to hire an applicant based on information in a criminal history report, an employer must provide the applicant with a copy of the report and an opportunity to dispute or explain information in the report that the applicant believes is inaccurate or incomplete. Finally, an employer must provide the applicant with an “adverse action notice” if it refuses to hire the applicant based on information provided in the criminal history report.

Therefore, some of the factors to consider when reviewing a prospective employee's particular situation might include:

- The nature and gravity of the criminal offense;
- The time since the conviction and/or completion of the sentence;
- The nature of the duties and responsibilities of the job; and
- The prospective employee's record of performance and behavior on other recent jobs.

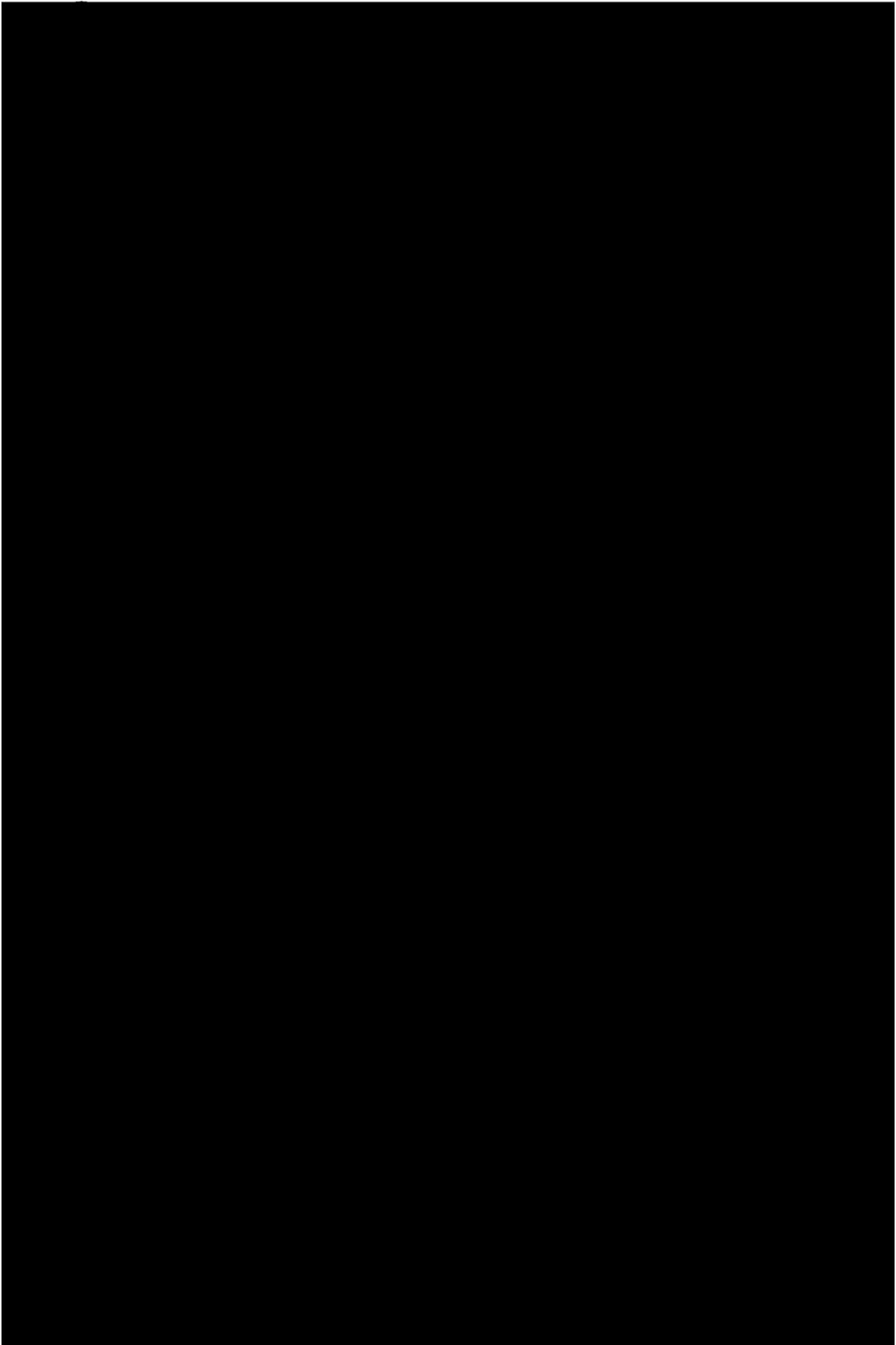
In sum, if the circumstances of a prospective employee's conviction substantially relate to the duties and responsibilities of the particular job, the university employer must refuse to hire the applicant for that specific job.

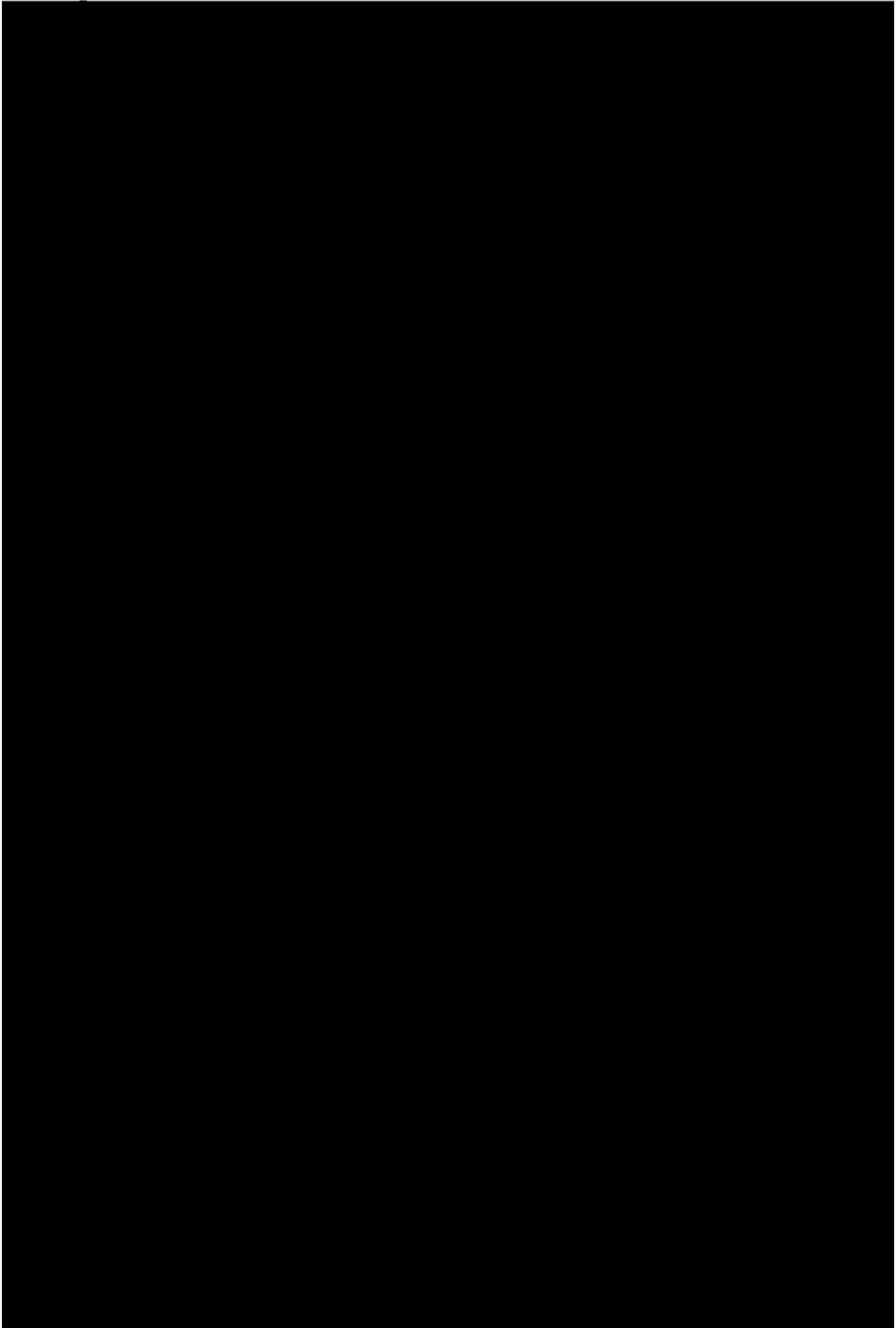
UW System Administration Approval and Periodic Review

No later than November 1, 2006, each UW System institution will submit its criminal background check implementation policy and procedures to the UW System General Counsel and UW System Office of Human Resources for review and approval. Following such review and approval and Board of Regents' adoption of this recommended policy, an institution's new criminal background check implementation policy and practices will take effect on or before January 1, 2007. In the future, any subsequent changes to an institution's criminal background check implementation policy should be submitted to the same System offices for review and approval.

In consultation with institutional officials, UW System Administration officials will periodically review and assess the criminal background check protocols and practices to determine that policies are being followed, and to consider whether procedural modifications or program alterations are merited.







Crop and Soil Science Major

Foundation Courses in Agriculture 12 cr. hrs.

CROP 161 Introduction to Plant Science 3 cr.

SOIL 210 Introductory Soil Science 3 cr.

AGEC 230 Agricultural Economics I 3 cr.

Select one from:

AGEN 150 Agricultural and Environmental Engineering Technology 3 cr.

ANSC 111 Introduction to Animal Science 3 cr.

FDSC 110 Introduction to Food Science 3 cr.

Major Requirements 64 Total Credits

Required Courses: 14 cr. hrs.

CROP 263 Forage Crop Production 3 cr.

CROP 266 Corn and Soybean Production 3 cr.

SOIL 311 Soil Fertility 4 cr.

SOIL 440 Soil and Water Conservation 4 cr.

Options (choose one):

Crop Science Option 43-45 cr. hrs.

CROP 257 Genetics 3 cr.

CROP 260 Plant and Seed Identification 2 cr.

CROP 345 Weed Control 3 cr.

CROP 410 Plant Breeding and Crop Improvement 3 cr.

CROP 435 Crop Physiology 4 cr.

CROP 451 Integrated Pest Management 3 cr.

CROP 485 Seminar in Agronomy 1 cr.

ANSC 341 Biometrics 3 cr.

AGBI 251 Agricultural Biochemistry 3 cr.

AGBI 252 Agricultural Biochemistry Laboratory Techniques 1 cr.

BIOL 314 Plant Pathology 3 cr.

BIOL 333 Entomology 3 cr.

CHEM 230 General Organic Chemistry 3 cr.

Select one course from the following:

AGEN 363 Precision Agricultural Technology 3 cr.

ANSC 231 Principles of Nutrition 3 cr.

HORT 327 Vegetable Science and Production 4 cr.

HORT 347 Fruit Science and Production 4 cr.

HORT 455 Turfgrass Science and Management 3 cr.

SOIL 350 Pedology 4 cr.

Select one course from the following:

AGEC 355 Agricultural Marketing and Production 3 cr.

AGEC 360 Farm Management 3 cr.

AGEC 368 Professional Selling 3 cr.

Select one course from the following:

CROP 267 Small Grain and Miscellaneous Crop Production 3 cr.

CROP 268 Grain Grading and Seed Analysis 2 cr.

CROP 363 Pasture Management 2 cr.

CROP 368 Sustainable Agriculture 3 cr.

Directed Electives 7-9 cr. hrs.

Soil Science Option 44-49 cr. hrs.

SOIL 325 Hydric Soils and Wetland Environments 3 cr.

SOIL 350 Pedology 4 cr.

SOIL 460 Soil Physics 3 cr.

CHEM 122 General Chemistry II 5 cr.

GEOL 102 Introductory Geology Lab 1 cr.

ESM 360 Applied Hydrology and Water Quality 4 cr.

ENGL 367 Technical Writing 3 cr.

SCTA 211 Public Speaking 3 cr.

Select one course from the following:

CROP 257 Genetics 3 cr.

CROP 260 Plant & Seed ID 2 cr.

CROP 267 Sm. Gr. & Misc Crop 3 cr.

CROP 345 Weed Control 3 cr.

CROP 363 Pasture Management 2 cr.

CROP 435 Crop Physiology 4 cr.

CROP 368 Sustainable Ag 3 cr.

Select two courses from the following:

CROP 451 IPM 3 cr.

BIOL 210 General Botany 3 cr.

BIOL 230 General Zoology 3 cr.

BIOL 240 Cell & Molec Biol 3 cr.

BIOL 314 Plant Pathology 3 cr.

BIOL 324 Microbiology 4 cr.

BIOL 333 Entomology 3 cr.

GEOL 327 Geomorph & Glacial 4 cr.

Select one course from the following:

AGEC 320 Statistical Methods 3 cr.

ANSC 341 Biometrics 3 cr.

CHEM 230 Organic Chemistry 3 cr.

CHEM 251/256 Analytic Chem 3 cr.

PHYS 151 General Physics 4 cr.

Electives (9-14 cr)

Sustainable Agriculture (45-48 cr hrs.)

ESM 105 Introduction to Environmental Studies 3 cr.
 SOCI 340 Sociology of Rural Life 3 cr.
 AGECE 250 World Food and Population 3 cr.
 CROP 368 Sustainable Agriculture 3 cr.
 ESM 220 Environmental Sustainability: Theories, Issues and Management 3 cr.
 CROP 486 *Organic Food Production Systems* 3 cr. (NEW)
 CROP 451 Integrated Pest Management 3 cr.
 CROP/HORT 222 *Practicum in Community Gardening* 3 cr. (NEW) **OR**
 CROP/HORT/ANSC/FDSC/AGEN 270 Internship 4 cr.

Select two courses of the following:

AGEN 325 Alternative Energy Systems 3 cr.
 HORT 169: Introduction to Horticulture 3 cr.
 HORT 327 Vegetable Science and Production 4 cr.
 HORT 347 Fruit Science and Production 4 cr.
 CROP 260 Plant and Seed Identification 2 cr.
 CROP 363 Pasture Management 2 cr.
 CROP 345 Weed Control 3 cr.
 CROP 410 Plant Breeding and Crop Improvement 3 cr.
 BIOL 314 Plant Pathology 3 cr.
 BIOL 333 Entomology 3 cr.
 ANSC/FDSC 238 Meat and Meat Products 3 cr.
 FDSC 259 Cereal Technology 3 cr.
 CROP/ANSC 257 Genetics 3 cr.
 ANSC 231 Principles of Nutrition 3 cr.
 ANSC 232 Applied Feeds and Feeding 3 cr.
 ANSC 365 Poultry Production 3 cr.
 ANSC 366 Swine Production 3 cr.
 ANSC 367 Beef Production 3 cr.
 ANSC 368 Sheep Production 3 cr.
 ANSC 369 Equine Production 3 cr.

Select two courses of the following:

AGECE 240: Cooperatives
 AGECE 355 Agricultural Marketing and Prices 3 cr.
 AGECE 360: Farm Management 3 cr.
 AGECE 361 Horticulture Business Management 3 cr.
 AGECE 450: Introduction to Natural Resource Economics 3 cr.
 AGECE 495 Direct Marketing 3 cr.
 AGECE 410 Professional Selling 3 cr.
 PHIL 304 Business Ethics 3 cr.
 POLS 256 Public Policymaking 3 cr.
 SOCI 245 Environmental Sociology 3 cr.

Select two courses of the following:

AGED 202 Leadership and Group Dynamics 3 cr.
ESM 151 Introduction to Land Use Theory and Practice 3 cr.
ESM 307 Multicultural Perspectives on the Environment 3 cr.
GEOG 120 Human Geography 3 cr.
GEOG 214 World Patterns of Plants and Animals 3 cr.
GEOG 220 Economic Geography 3 cr.
PHIL 240 Social Ethics 3 cr.
PHIL 303 Environmental Ethics 3 cr.

Electives 4-6 cr.

Required Supporting Courses**SL (Scientific Investigation) 3 credits required, 6 credits possible**

BIOL 150 General Biology (3)
CHEM 121 General Chemistry I (5)

EC (Ethical Citizenship) 3 credits

CROP 120 Plants and Society (3)