

## 2011-2012 Assessment Plan for Natural Resources - M.N.R.

[Learning Outcomes](#)   [2010-11 Snapshot \(read only\)](#)   2011-12 Current Cycle   [2012-13 Next Cycle](#)

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| <b>Learning Outcome(s)</b> <a href="#">Edit</a>   | <b>Assessment Tools and Procedures</b> <a href="#">Edit</a>   | <b>Benchmarks</b> <a href="#">Edit</a>  | <b>Findings</b> <a href="#">Edit</a>  | <b>Curricular and Co-Curricular Changes to be Made</b> <a href="#">Edit</a>  |
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| <p>Master and integrate information and knowledge from ecological, social, economic and political perspectives – into a systems view of natural resource issues. <a href="#">Edit</a></p> <p><b>Aligns with University Learning Outcome(s):</b><br/>Learn and Integrate</p> | <p><b>Direct Measure</b><br/>Satisfactory responses on MNR oral exam.</p> <p><b>Indirect Measure</b><br/>Placement rate for graduates in interdisciplinary natural resource positions</p> <p><b>Face-to-Face Measures</b><br/>Individual graduating MNR students receive an electronic exit interview survey upon completion of their case study presentations and required coursework.</p> | <p><b>Direct Benchmarks</b><br/>Direct Measure: Score of at least 40 out of possible total score of 50 on Examination Evaluation Rubric for all students. Focus Discussion: Student participants indicate satisfaction with the oral examination process. Indirect Measure: 90% of graduating students placed in Interdisciplinary NR positions.</p> <p><b>Indirect Benchmarks</b><br/>50% of the graduating MNR students are employed in a position utilizing graduates natural resources education.</p> | <p><b>Direct Findings</b><br/>All of the 15 students who completed their course work and case study project successfully passed their defense examination, based on our objective evaluation measures. When questioned about the overall quality the MNR program, our exit interview database thus far (27 respondents) showed that 93% responded at the combined good to excellent ratings. No students rated this question as poor, very poor, unacceptable. When questioned about the overall quality the courses in the MNR program, our exit interview database thus far (28 respondents) showed that 96% responded at the combined good to excellent ratings. No students rated this question as poor, very poor, unacceptable.</p> <p><b>Indirect Findings</b><br/>The demographics of our students are changing; an increasing number of our incoming students (64% of our students) are already in natural resource fields in state and federal agencies (thus, placement of graduates is already high). Because a professional background in natural resources often requires the professional to appreciate a variety of perspectives, the relatively high proportion of students who enter the program with such a background fields facilitates the integration philosophy of the MNR program.</p> <p><b>Face-to-Face Findings</b><br/>The MNR program graduated 15 students in the past year. All students reported a high level of satisfaction with the program. Many students expressed a high level of enthusiasm</p> | <p>The ability to offer a comprehensive curriculum of high quality online courses is essential for the MNR program - and key to accomplish the overall goal of integration of various perspectives on issues in natural resources. Thus, an online course catalog specifically designed for our clientele is needed. For the 2011-2012 academic year, several new online courses were added to the MNR curriculum. Also, the MNR program web site (MyMNR.net) now includes a comprehensive listing of our online courses. This list integrates all pertinent information: course description, delivery method, instructor contact information, semester offered, credits. Examples of notable newly added online are: Moral Reasoning in Natural Resources (NR 504-1), Natural Resources Policy Development (FOR 584), Scientific Graphics Design (NR 504-40).</p> |

for the program in regard to its educational and professional value. Also, the final project presentations show a high level of ability to integrate various perspectives in natural resources.

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| <p>Synthesize ideas and information to identify, analyze and problem-solve natural resource issues – into a systems view of natural resource issues. <a href="#">Edit</a></p> <p><b>Aligns with University Learning Outcome(s):</b><br/>Think and Create</p> | <p><b>Direct Measure</b><br/>Satisfactory final presentation in MNR case study defense.</p> <p><b>Indirect Measure</b><br/>MNR graduates are employed in positions that utilize the synthesis skill acquired in the MNR program</p> <p><b>Face-to-Face Measures</b><br/>Individual interviews with graduating MNR students after completion of the final case study presentation.</p> | <p><b>Direct Benchmarks</b><br/>Successful completion of the case study presentation and defense in which student demonstrates synthesis, analytical and problem solving skills drawn from understanding gained through coursework and research conducted for the case study.</p> <p><b>Indirect Benchmarks</b><br/>50% of the graduating MNR students are utilizing synthesis skills learned in the MNR program in current positions.</p> | <p><b>Direct Findings</b><br/>All 15 students who graduated this past year performed at a level of satisfactory or above on their final project presentation (as per the criteria used for evaluating student performance on the defense examination). For the question on the how valuable their case study project was for integrating issues in natural resources, our exit interview data show graduates responded with 68% agreement the for the combined good to excellent ratings. Only one student of 28 students thus far has rated this question as poor; no students rated their project experience as very poor or unacceptable.</p> <p><b>Indirect Findings</b><br/>The demographics of our students are changing; an increasing number of our incoming students are already in natural resource fields in state and federal agencies (64%). Thus, our graduates are generally well-experienced with having to integrate natural resource issues in a professional situation.</p> <p><b>Face-to-Face Findings</b><br/>Although we often discuss their evaluation of the MNR program with students during the defense period, we have replaced the informal assessment with a more qualitative and standardized exit interview. Since the exit interview is completed online and confidential, we believe the data will more closely reflect the students' view of the MNR program - and their success in integrating and synthesizing current issues in natural resources. Since this electronic exit interview was initiated in late late 2010, quantitative information has been</p> | <p>Student success in this category is directly related to the availability of online courses in the appropriate MNR course category. We have significantly increased the number of online courses, which will provide a more consistent and complete online course curriculum for students. Continued work to increase the availability of summer online courses, and continued work on the MNR web site (MyMNR.net) to include a comprehensive online course catalog customized to meet the needs of our clientele.</p> |

submitted by 28 students  
who completed the  
program.

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| <p>Understand diverse viewpoints and perspectives to assist graduates develop credentials and skills making them effective natural resource managers; demonstrate reflection and expanded understanding as applied to one's professional goals in relation to global perspectives. <a href="#">Edit</a></p> <p><b>Aligns with University Learning Outcome(s):</b><br/>Clarify Purpose and Perspective</p> | <p><b>Direct Measure</b><br/>Satisfactory demonstration of understanding diverse viewpoints the presentation of the case study at the conclusion of the program. Appropriate and informed responses to questions as part of the final oral examination.</p> <p><b>Indirect Measure</b><br/>Feedback provided by employers (after graduation) that MNR graduates can identify, analyze and solve multi-faceted, regional, national and/or global natural resource issues. Feedback can be provided through employer interviews or other surveying method.</p> <p><b>Face-to-Face Measures</b><br/>Individual interviews with graduating MNR students after completion of the final case study presentation.</p> | <p><b>Direct Benchmarks</b><br/>Satisfactory demonstration of diverse understanding is marked by successful completion of the final case study presentation. The presentation should include content that demonstrates a diverse understanding of the issues and questions from MNR committee members should address diversity to test the students' understanding and knowledge in this area of competency.</p> <p><b>Indirect Benchmarks</b><br/>Indirect benchmarks would be survey results or other formal feedback on the ability of MNR graduates to identify, analyze and problem solve issues with a diverse scope. Comments on good critical thinking abilities, ability to compare natural resource management issues across local, state, regional and national boundaries would all serve as indirect benchmarks of the program meeting this learning outcome.</p> | <p><b>Direct Findings</b><br/>All of the 15 students who completed their course work and case study project successfully passed their defense examination, based on our objective evaluation measures. Because of our comprehensive digital library of recorded final presentations (about 50 recorded presentations), the quality of final case study projects, presentations, and responses to examination questions during the defense have significantly increased. This is especially the case for understanding and appreciating diverse views on issues in natural resources. When questioned about the overall quality of the courses in the MNR program, our exit interview data show that our graduates 96% agree that the combined good to excellent ratings. No students rated this question as poor, very poor, unacceptable.</p> <p><b>Indirect Findings</b><br/>The connection with employers needs attention. We currently have no qualitative or quantitative data on how employers view our graduates. However, a substantial number of our incoming students had employment with state or federal agencies involved with natural resource issues, and continued in those positions after graduation.</p> <p><b>Face-to-Face Findings</b><br/>Although we often discuss their evaluation of the MNR program with students during the defense period, we have replaced the informal assessment with a more qualitative and standardized exit interview. Face-to-face discussions with students during the</p> | <p>We will continue to develop aspects of the MNR program that increase the awareness of diverse views on natural resource issues through, e.g., courses such as, Moral Reasoning in Natural Resources – a course that course examines the practical aspects of moral reasoning of a core set of current issues in natural resources. We will develop procedures for increased connection with employers for our assessment of our graduates and the MNR program. We have also, started compiling statistics on our applicants and graduates that will allow us to build a better profile (e.g., academic quality, professional background and post-graduate employment, etc.) of our clientele and alumni.</p> |

defense have been very useful for increasing awareness of diverse views on natural resource issues. Since the exit interview is completed online and confidential, we believe the data will more closely reflect the students' view of the MNR program.

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| <p>Define and apply sustainable management in natural resources as ethical, socially responsible practice; understand ethical dilemmas and make ethical choices. <a href="#">Edit</a></p> <p><b>Aligns with University Learning Outcome(s):</b><br/>Practice Citizenship</p> | <p><b>Direct Measure</b><br/>Satisfactory demonstration of ability to understand natural resource issues as issues that require ethical consideration. understanding diverse viewpoints the presentation of the case study at the conclusion of the program. Appropriate and informed responses to questions as part of the final oral examination.</p> <p><b>Indirect Measure</b><br/>Feedback provided by employers (after graduation) that MNR graduates bring to their positions the ability to integrate consideration of ethics into natural resource issue problem solving. Feedback can be provided through employer interviews or other surveying method.</p> <p><b>Face-to-Face Measures</b><br/>Individual exit interviews with graduating MNR students after completion of the final case study presentation.</p> | <p><b>Direct Benchmarks</b><br/>MNR students in the final presentation must show understanding of the ethical nature of natural resource management problem-solving by emphasizing the roles of and the competition among stakeholders and resource users. Demonstration of this knowledge in the presentation might include an informed discussion of the trade-offs of natural resource decision making and/or a scholarly treatment of issues of equity in the allocation of resource use and/or access.</p> <p><b>Indirect Benchmarks</b><br/>Indirect benchmarks would be survey results or other formal feedback on the ability of MNR graduates to incorporate ethical considerations into their set of natural resource problem-solving skills. Benchmarks that the employers might consider could be the ability of the MNR graduate to understand the perspectives and concerns of all stakeholders on an issue and/or a clear understanding of the role and obligation of the decisionmaker in making decisions that have ethical dimensions. For, example, comments from employers on the ability of the MNR graduate to put herself or himself in the place of any stakeholder and understand the stakeholder's position in a natural resource dispute would serve as an indirect benchmark of the program meeting this learning outcome.</p> | <p><b>Direct Findings</b><br/>All of the 15 students who completed their course work and case study project successfully passed their defense examination, based on our objective evaluation measures. Because of our comprehensive digital library of recorded final presentations, the quality of final case study projects, the oral presentations, and responses to examination questions during the defense have significantly increased. The availability of the digital library has been particularly beneficial for improving the communication skills of students during their final presentation and defense examination. Furthermore, this digital library exposes students to a high variety of approaches, philosophies, and perspectives on current issues in natural resources.</p> <p><b>Indirect Findings</b><br/>Although we often discuss their evaluation of the MNR program with students during the defense period, we have replaced the informal assessment with a more qualitative and standardized exit interview. Face-to-face discussions with students during the defense have been very useful for determining the level of awareness of the ethical, socially, and responsible practice in regard to natural resource issues. Since the exit interview is completed online and confidential, we believe the data will more closely reflect the students' view of the MNR program.</p> <p><b>Face-to-Face Findings</b><br/>Face-to-face discussions with students during the defense have been very useful for following up on the objective evaluations</p> | <p>Continued development and availability of consistent and relevant online assistance for students on their final project, which is the final and key phase of the MNR program. (students must use the knowledge and understanding gained from their course work and readings to synthesize and integrate the four MNR program areas in a critical analysis of a current issue in natural resources) : This includes: (1) enhanced presentation templates for the case study project so that all students receive the same advising assistance (e.g., the current presentation template, which has built-in rationale for proper presentation skills, will be enhanced for better advising on the project), (2) an enhanced module specifically designed for video conference presentations (off-campus students have the option to conduct the final presentation and defense via such a medium), and (3) continued additions to our comprehensive digital library of final presentations. The latter provides student with the opportunity to view a wide variety of approaches and perspectives on current issues in natural resources.</p> |



made by the MNR faculty. The objective evaluations by the MNR faculty are collated and are discussed with the student and the graduate advisor. We have replaced the informal exit interview with a confidential online exit interview survey for more quantitative and standardized data.

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| <p>Demonstrate oral, written and visual techniques to communicate complex natural resource ideas. <a href="#">Edit</a></p> <p><b>Aligns with University Learning Outcome(s):</b><br/>Communicate</p> | <p><b>Direct Measure</b><br/>MNR graduates demonstrate competency in preparation and delivery of final case study presentation. MNR graduates demonstrate ability to handle questions at the conclusion of the final presentation.</p> <p><b>Indirect Measure</b><br/>Feedback provided by employers (after graduation) that MNR graduates bring to their positions the ability to communicate effectively in writing, orally and through use of multimedia tools in their natural resource issue problem solving. Feedback can be provided through employer interviews or other surveying method.</p> <p><b>Face-to-Face Measures</b><br/>Informal discussions between the student and MNR faculty during the defense examination. Follow-up with a confidential online exit interview surveys of every student who graduates in the MNR program.</p> | <p><b>Direct Benchmarks</b><br/>The criteria for the evaluation of student performance on the presentation include (among other things) organization of the presentation, quality of multimedia materials, clarity of content, integration of the MNR course categories into the presentation as well as ability to speak publicly and answer questions adequately from the audience and the MNR committee members.</p> <p><b>Indirect Benchmarks</b><br/>Indirect benchmarks would be survey results or other formal feedback on the ability of MNR graduates to communicate effectively in writing, orally and through use of multimedia tools as an enhancement of natural resource problem-solving skills. Benchmarks that the employers might consider could be the ability of the MNR graduate to use presentation software to prepare and deliver an effective, informative and persuasive presentation and to write reports, memoranda and other written material clearly, concisely, accurately and in a grammatically correct form. Feedback from employers on the MNR graduates' ability to communicate well would serve as an indirect benchmark of the program meeting this learning outcome.</p> | <p><b>Direct Findings</b><br/>All of the 15 students who completed their course work and case study project successfully passed their defense examination, based on our objective evaluation measures. Because of our comprehensive digital library of recorded final presentations, the quality of final case study projects, the oral presentations, and responses to examination questions during the defense have significantly increased. The availability of the digital library has been particularly beneficial for improving the communication skills of students during their final presentation and defense examination.</p> <p><b>Indirect Findings</b><br/>Although we often discuss their evaluation of the MNR program with students during the defense period, we have replaced the informal assessment with a more qualitative and standardized exit interview. Face-to-face discussions with students during the defense have been very useful for determining the level of awareness of the ethical, socially, and responsible practice in regard to natural resource issues. Since the exit interview is completed online and confidential, we believe the data will more closely reflect the students' view of the MNR program.</p> <p><b>Face-to-Face Findings</b><br/>Face-to-face discussions with students during the defense have been very useful for following up on the objective evaluations made by the MNR faculty. The objective evaluations by the MNR faculty are collated and are discussed with the student and the graduate advisor. We have replaced the informal exit</p> | <p>For continued improvement in the analytical and communication skills of our students, we will continue to increase the digital library of recorded final project presentations. The digital library, which now has about 50 final project presentations, provides a keep resource for students because they have the opportunity to experience a full range of presentation approaches, methods of integration of natural resource issues, and a wide variety of perspectives on current issues in natural resources. In addition, foundational modules (delivered online on an independent study basis) will be developed allow students to address and resolve any deficiencies in their analytical and communication skills.</p> |

interview with a confidential online exit interview survey for more quantitative and standardized data. Our quantitative database now includes responses from 28 students who have recently completed their MNR program. As the database increases in future years, we will be able to develop a comprehensive profile of our program – from the student's perspective – and base any revisions in the program on sound information.

[Skip to top of page](#)

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