# OZARKS TECHNICAL COMMUNITY COLLEGE

# ASSESSMENT OF STUDENT LEARNING INSTITUTIONAL REPORT 2008-2009







ASSESSMENT OF STUDENT LEARNING OUTCOMES

FALL 2008 – SPRING 2009



### ASSESSMENT OF STUDENT LEARNING OUTCOMES Fall 2008-Spring 2009

#### Mission

The mission of Ozarks Technical Community College is to promote student learning through accessible, high quality, affordable workforce training, and technical and general education that is responsive to the educational needs of the community and its diverse constituencies.

In order to fulfill its mission to promote student learning through accessible high quality education that is responsive to the needs of the community and its diverse constituencies, the College has implemented on-going assessment activities that provide the feedback needed for the following purposes:

- Improve teaching effectiveness and student learning,
- Improve and revise curriculum,
- Improve the quality of programs and the process of program planning,
- Allocate necessary resources needed for effective planning and budgeting, and
- Demonstrate accountability to internal and external constituencies.

Assessment of student learning is designed to support the mission through the process of measuring and evaluating institution, division, program/department, and course effectiveness. This occurs through the gathering of data to determine the initial level of student learning, evaluating the results of this evidence, determining what actions are necessary to improve student learning and success, and incorporating the proposed actions into the assessment process.

Assessment at these various levels allows the College to capitalize on strengths, identify areas where opportunities for enhancement exist, and implement changes and improvements in teaching, learning, and program quality. The data generated through campus-wide assessment processes becomes the basis for collaborative decision making at many levels within the institution providing evidence to all stakeholders that students are successfully achieving the established academic goals.

The following 2009-2010 report contains the assessment results and proposed action plans for the assessment of student learning at the institution, division, program/department, and course levels. In addition, a summary of changes that have occurred and future plans are included.

Fall 2008 - Spring 2009

### SUMMARY OF INCORPORATED CHANGES AND FUTURE PLANS FOR ASSESSMENT OF STUDENT LEARNING

#### Academic Year 2008-2009

- Incorporated assessment into the curriculum process by establishing a requirement of listing how course objectives would be assessed.
- Introduced the Course Assessment Spreadsheet with approximately 15 training sessions each semester for faculty.
- Full-time faculty constructed course assessment plans, selected appropriate assessment tools for course objectives, and developed grading rubrics for subjective assessment tools.
- Built OTC academic format into WEAVEOnline for the purpose of entering assessment data.
- Faculty members established or reviewed and updated program/department goals and mission statements.
- Faculty from each instructional division established division learning outcomes and mission statements for their division.
- With input from faculty and Instructional Council, Institutional Learning Outcomes were established.
- Full-time faculty assessed selected courses.
- Through the curriculum approval process, faculty began evaluating course objectives to determine if they were measurable and rewriting if necessary.
- Established a Course Assessment Schedule for AY 2009-2010 and AY 2010-2011
  - General Education: Selected core general education courses for the A.A. transfer degree for assessment
  - Technical Education and Business/Accounting: Selected courses from the first two semesters for the A.A.S. degree for assessment
  - o Allied Health: Selected specific courses from each program for assessment

#### **Future Plans**

#### Academic Year 2009-2010

Utilize the Course Assessment Schedule established in Spring 2009. Full-time and adjunct faculty
will assess courses from each instructional division according to the established schedule for the
2009-2010 academic year.

#### Fall 2008 - Spring 2009

- To accomplish assessment at all levels, faculty will map course objectives to
  program/department goals, program/department goals to division outcomes, and division
  outcomes to institutional learning outcomes for all additional courses assessed in 2009-2010
  academic year.
- Through the curriculum approval process, faculty will continue to evaluate and rewrite course objectives as necessary.
- Through discussion among faculty, faculty will develop action plans for the course level assessment based on course assessment results.
- Assessment results and action plans will be incorporated into the five-year program reviews and annual budget action plans.

#### Academic Year 2010-2011

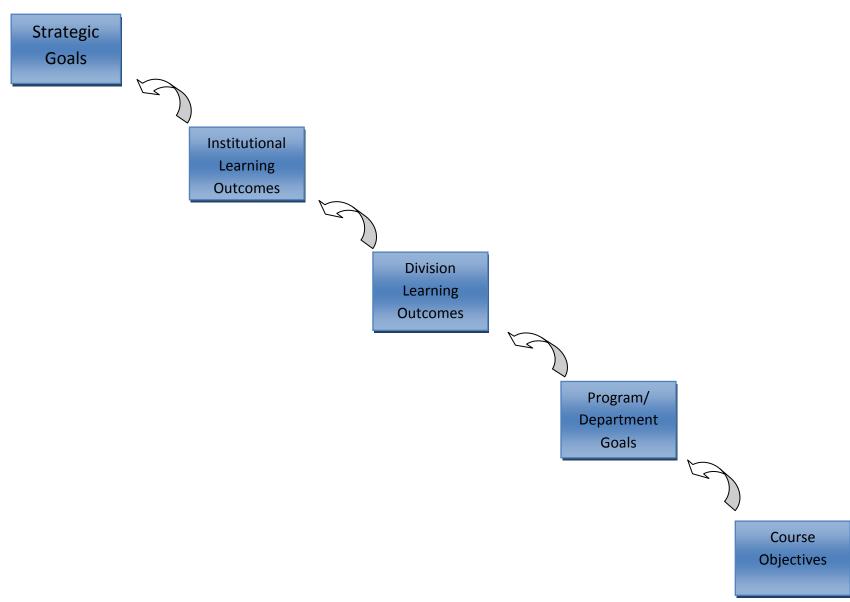
- Continue with the current assessment process tracking action plan results and new proposed action plans based on the results of assessment of student learning.
- Prepare for February HLC sit visit.
- Conducted a faculty assessment survey to evaluate faculty perception of the assessment process.
- Review Institutional Learning Outcomes with faculty and revise as necessary.

#### Academic Year 2011-2012

- Revise and incorporate changes according to HLC and consultant recommendations.
  - o Restructure the Assessment Committee to be more faculty driven.
  - o Move from a one-year cycle of assessment to a three-year cycle.
  - Incorporate additional direct and indirect assessment measures into the evaluation of effective teaching and student learning at the program/department and institution level.
  - Develop action plans based on program level assessment rather than just course level.
  - Promote a stronger culture of assessment and assessment innovation.
  - o Enhance professional development opportunities for assessment.

Fall 2008 - Spring 2009

#### LEVELS OF ASSESSMENT OF STUDENT LEARNING



#### **Strategic Goals**

Innovation: The College will provide innovative teaching strategies that promote continued learning opportunities for students.

Learning Centered: The College will promote a learning-centered environment that focuses on students' needs and reduces barriers to student success.

# INSTITUTION LEVEL ASSESSMENT OF STUDENT LEARNING RESULTS 2008-2009

# Total % of Students Meeting Institutional Learning Outcomes Benchmark 70%

	Institutional Learning Outcomes	All Divisions Combined	Allied Health	Business/ Accounting	General Education	Technical Education
1	<u>Communication</u> : Students will demonstrate effective communication skills, including listening, speaking, and writing in order to advance academically and professionally.	74.4%	86.9%	74.3%	72.8%	80.3%
2	Employability: Students will develop career competencies and self-management skills needed to gain employment in their chosen professions.	76.5%	83.6%	77.4%	72.3%	84.5%
3	<u>Professionalism:</u> Students will develop personal and professional relationships by demonstrating ethical behavior, collaborative work, and constructive conflict resolution to promote success and advancement in their careers.	75.1%	90.3%	74.2%	74.3%	81.9%
4	<u>Critical Reasoning</u> : Students will demonstrate the ability to contribute actively and successfully to their community through the processes of analyzing, reflecting, reasoning, and forming conclusions and judgments on a variety of ideas, issues, and information.	75.2%	88.1%	76.7%	74.5%	80.8%
5	Information Management: Students will demonstrate how to create, retrieve, organize, and analyze information, including information from digital and technological sources.	72.1%	83.1%	76.3%	70.2%	71.7%
6	<u>Culture and Global Awareness</u> : Students will demonstrate the ability to recognize and respect the impact of differing cultures, ethnic groups, and values on society and the interdependence of people around the globe.	85.0%	91.5%	80.2%	not assessed	72.1%

# DIVISION LEVEL ALLIED HEALTH ASSESSMENT OF STUDENT LEARNING RESULTS 2008-2009

# **Total % of Students Meeting Division Outcomes by Program Benchmark 75%**

	Allied Health Division Outcomes	All Division Courses	ASN Courses	DAS Courses	DHY Courses	EMT Courses	HCS Courses	HIT Courses	HIS Courses
1	Communication Skills: Demonstrate concise and accurate communication in written and oral forms with patients/clients, practitioners, and interdisciplinary team members.	86.9%	not assessed	80.4%	not assessed				
2	<u>Data Gathering Skills</u> : Collect, maintain, and analyze health data according to professional standards and legal requirements.	83.6%	not assessed	80.8%	98.1%	not assessed	not assessed	not assessed	not assessed
3	<u>Technical Skills</u> : Demonstrate competency in entry-level skills related to a specific health care occupation.	90.3%	not assessed	92.8%	96.9%	not assessed	not assessed	not assessed	not assessed
4	<u>Professionalism</u> : Adhere to ethical and legal standards for healthcare professions.	88.1%	not assessed	80.4%	not assessed				
5	Clinical Reasoning: Utilize evidence-based practices or best practice guidelines to make reasoned decisions in a specific health care occupation.	83.1%	not assessed	80.8%	98.1%	not assessed	not assessed	not assessed	not assessed
6	Employability: Prepare students to be eligible for employment in their field of study.	91.5%	not assessed	92.8%	92.8%	not assessed	not assessed	not assessed	not assessed

# **Total % of Students Meeting Division Outcomes by Program Benchmark 75%**

	Allied Health Division Outcomes (continued)	All Division Courses	MLT Courses	NUR Courses	OTA Courses	PTA Courses	RST Courses	SUR Courses
1	Communication Skills: Demonstrate concise and accurate communication in written and oral forms with patients/clients, practitioners, and interdisciplinary team members.	86.9%	85.5%	not assessed	100.0%	not assessed	88.6%	not assessed
2	<u>Data Gathering Skills</u> : Collect, maintain, and analyze health data according to professional standards and legal requirements.	83.6%	86.0%	not assessed	100.0%	not assessed	88.6%	not assessed
3	<u>Technical Skills</u> : Demonstrate competency in entry-level skills related to a specific health care occupation.	90.3%	84.5%	not assessed	91.5%	not assessed	88.6%	not assessed
4	<u>Professionalism</u> : Adhere to ethical and legal standards for healthcare professions.	88.1%	not assessed	not assessed	90.4%	not assessed	89.5%	not assessed
5	<u>Clinical Reasoning</u> : Utilize evidence-based practices or best practice guidelines to make reasoned decisions in a specific health care occupation.	83.1%	85.4%	not assessed	100.0%	not assessed	88.6%	not assessed
6	Employability: Prepare students to be eligible for employment in their field of study.	91.5%	not assessed	not assessed	90.4%	not assessed	88.9%	not assessed

# Dental Assisting Program Program and Course Level Assessment of Student Learning Results 2008-2009

#### **Dental Assisting**

#### **Dental Assisting Program Mission Statement**

The mission of the Ozarks Technical Community College Dental Assisting Program is to provide students with the knowledge and skills necessary to be entry-level Dental Assistants who are an asset to themselves, the dental team, and the community.

# Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 75%

	Dental Assisting Program Goals	All DAS Courses	DAS 102	DAS 103		
1	Demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to their role as a Dental Assistant.	80.8%	89.6%	75.3%		
	Demonstrate technical proficiency in all skills necessary to fulfill their role as a Dental Assistant.	92.8%	92.8%	not assessed		
3	Demonstrate professional behavior consistent with employer expectations for the Dental Assistant.	80.4%	91.3%	47.8%		

# Total % of Students Meeting Course Objectives Benchmark 75%

	Course Objectives - DAS 102 FA 08	% meeting course objective
1	Explain government regulations and guidelines set forth by the CDC, OSHA, and the EPA.	88.4%
2	Apply infection control procedures in the dental office	91.3%
3	Describe the modes of disease transmission and the dental assistant's role in preventing disease transmission.	88.4%
4	Describe the components of an OSHA Hazard Communication Standard.	91.3%
5	Relate the OSHA Bloodborne Pathogens Standard to clinical practice.	79.7%
6	Demonstrate the principles and techniques of instrument processing and sterilization.	94.2%
7	Discuss safe waste management techniques in the dental setting.	97.1%
8	Describe and list the clinical equipment in the dental treatment area.	92.8%

	Action Plan DAS 102				
Obj	Action proposed to improve student learning and/or teaching.	Target	Resources	\$ amount	High/low
#		Date	needed	requested	priority
	No actions proposed.				

	Course Objectives - DAS 103 SP 09	% meeting course objective	
1	Define each of the dental specialties.	97.8%	
2	Identify instruments used specifically for each specialty.	66.8%	
3	Identify dental materials used in each specialty.	84.3%	
4	List and describe the different types of procedures performed in each specialty.	58.7%	
5	Explain the involvement of the laboratory in each of the specialties.	43.5%	
6	Model professional behavior and etiquette during class.	47.8%	
	Action Plan DAS 103		
Obj	Action proposed to improve student learning and/or teaching.	Target	Ī

No actions proposed.

High/low

priority

requested

needed

Date

#### **Dental Hygiene Program**

# Program and Course Level Assessment of Student Learning Results 2008-2009

#### Dental Hygiene

#### **Dental Hygiene Program Mission Statement**

Ozarks Technical Community College Dental Hygiene Program is committed to providing quality, economical, accessible, and occupationally-oriented curricular offerings allowing individuals the opportunity to develop to their fullest potential.

# Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 75%

	Dental Hygiene Program Goals	All DHY Courses	DHY 102		
1	Provide quality educational program which meets the needs of students, employers, and community.	91.7%	91.7%		
2	Provide necessary resources to maintain relevant curriculum.	96.3%	96.3%		
3	Academically and technically prepare the students for employment.	98.1%	98.1%		
	Encourage personal and professional growth through professinal associations, continuing education, and community service.	not assessed	not assessed		

# Total % of Students Meeting Course Objectives Benchmark 75%

	Course Objectives - DHY 102 FA 08	% meeting course objective
1	Explain government regulations and guidelines set forth by the CDC, OSHA, and the EPA.	90.7%
2	Apply infection control procedures in the dental office.	98.1%
3	Describe the modes of disease transmission and the dental assistant's role in preventing disease transmission.	88.9%
4	Describe the components of an OSHA Hazard Communication Standard.	90.7%
5	Relate the OSHA Bloodborne Pathogens Standard to clinical practice.	87.0%
6	Demonstrate the principles and techniques of instrument processing and sterilization.	94.4%
7	Discuss safe waste management techniques in the dental setting.	98.1%
8	Describe and list the clinical equipment in the dental treatment area.	94.4%
	Action Plan DHY 102	

	Action Plan DHY 102				
Obj	Action proposed to improve student learning and/or teaching.	Target	Resources	\$ amount	High/low
#		Date	needed	requested	priority
	No actions proposed.				

# Medical Laboratory Technician Program Program and Course Level Assessment of Student Learning Results 2008-2009

#### **Medical Laboratory Technician**

#### Medical Laboratory Technician Mission Statement

The primary mission of the Ozarks Technical Community College's Medical Laboratory Technician Program is to deliver technical, high quality, and affordable clinical laboratory training that will open opportunities to our students and meet the workforce needs of our surrounding communities.

# Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 75%

	Medical Laboratory Technician Program Goals	All MLT Courses	MLT 220	
1	Recognize and apply concepts, principles, and theories from the sciences that underlie clinical lab skills (e.g., biochemistry, physiology, chemistry).	86.4%	86.4%	
2	Apply methodological principles from clinical courses.	82.8%	82.8%	
3	Recognize and apply principles of quality assurance.	86.4%	86.4%	
4	Use medical technology terminology accurately.	not assessed	not assessed	
5	Correlate results from various procedures with management of patient's diagnosis.	81.8%	81.8%	
6	Perform new laboratory procedures and evaluate effectiveness.	85.9%	85.9%	
7	Distinguish abnormal from normal results.	81.8%	81.8%	
8	Interpret and evaluate clinical procedures and results.	86.4%	86.4%	
9	Make and confirm sound diagnostic conclusions.	81.8%	81.8%	
10	Predict clinical course following diagnosis.	81.8%	81.8%	
11	Conduct research using appropriate literature.	not assessed	not assessed	
12	Select and apply appropriate statistical procedures to evaluate data.	87.9%	87.9%	
13	Recognize and describe principles and regulations regarding lab safety.	100.0%	100.0%	

14	Identify and prevent medical errors or minimize consequences of medical errors.	84.8%	84.8%	
15	Select, operate, and maintain appropriate strategies for recording and reporting results.	85.5%	85.5%	
16	Communicate effectively with related medical discipline professionals and service providers.	not assessed	not assessed	
17	Interact effectively with patients using calm and reasoned judgment and sensitivity to patient.	not assessed	not assessed	
18	Make professional oral presentations of findings.	not assessed	not assessed	
19	Articulate appropriate professional responsibility for patient's welfare.	not assessed	not assessed	
20	Recognize and adhere to applicable professional regulations, ethical standards, and program's code of conduct.	not assessed	not assessed	
21	Advocate for effective, timely, accurate, and cost-effective service to demonstrate commitment to patient's welfare.	not assessed	not assessed	
22	Maintain confidentiality of patient information.	not assessed	not assessed	

#### Total % of Students Meeting Course Objectives Benchmark 75%

		%
	Course Objectives - MLT 220 SP 09	meeting
	Course objectives THEF 220 SF 05	course
		objective
1	Recognize the biohazards in immunohematology and the safety rules that apply.	100.0%
2	Identify and evaluate quality control used in the immunohematology laboratory.	100.0%
3	Describe the immune process as it relates to immunohematology.	90.9%
4	Describe the donor selection process.	90.9%
5	Describe the preparation and use of blood components.	81.8%
6	Identify and describe the characteristics of the antigens and antibodies of the ABO, Rh, and other blood group systems.	72.7%
7	Perform and understand routine blood bank procedures utilized in pretransfusion testing.	81.8%
8	Perform and demonstrate an understanding for intermediate level blood bank testing in the resolution.	81.8%
9	Perform ABO forward and reverse groupings with 100% accuracy.	90.9%
10	Describe the use, color and sources of anti-A, anti-B and anti-A,B antiserum.	100.0%
11	Determine the correct Rh of specimens with 100% accuracy.	100.0%
12	Determine the presence or absence of the Du variant with 100% accuracy.	81.8%
13	Describe the usual route of exposure necessary to cause sensitization to Rh antigens and discuss the reactivity of the antibodies.	72.7%

	Action Plan MLT 220		
22	Given blood specimens that contain one or one more irregular antibodies, identify the antibody with 100% accuracy.	81.8%	
21	Describe the serological characteristics of and occurrence in the population of antibodies in the Lewis, Kell, P1, Duffy, MNSs, Kidd, and Lutheran systems.	63.6%	
	Perform ABO grouping, Rh typing, and DAT with 100% accuracy on cord blood specimens.	90.9%	
19	Describe the function of the Coombs control cells and the significance of a reaction that is a) positive b) negative.	90.9%	
18	Solve antibody panel reactions to determine the specificities present, fulfilling all requirements to statistically prove the antibody is present.	72.7%	
17	Perform the indirect antiglobulin technique (antibody screen, antibody panel, etc.) on blood specimens with 100% accuracy.	90.9%	
16	Propose three potential causes of a false positive DAT and formulate a procedure to correct the problems.	81.8%	
15	Outline the testing procedure for an adult and for an infant DAT.	81.8%	
14	Evaluate the need to perform and then carry out testing for the direct antiglobulin test (DAT) with 100% accuracy.	72.7%	

	Action Plan MLT 220		-		
Obj #	Action proposed to improve student learning and/or teaching.	900	Resources needed	l ·	High/low priority
	No actions proposed.				

#### **Occupational Therapy Assistant Program**

# Program and Course Level Assessment of Student Learning Results 2008-2009

#### **Occupational Therapy Assistant**

#### Occupational Therapy Assistant Program Mission Statement

The mission of the Occupational Therapy Assistant Program is to prepare students for entry-level, generalist practice relevant to a changing healthcare environment by providing learning experiences which reflect the fundamental concepts, skills, and philosophies of the occupational therapy profession.

# Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 75%

	Occupational Therapy Assistant Program Goals	All OTA Courses	OTA 280			
1	To educate Occupational Therapy Assistant Students, who upon graduation, are entry-level competent and prepared to meet the needs of the healthcare community.	90.4%	90.4%			
2	To prepare Occupational Therapy Assistant Students for successful completion of the professional certification examination upon graduation.	100.0%	100.0%			
3	To provide ongoing community services in the surrounding area which are mutually beneficial to the community service program and to the Occupational Therapy Assistant Program.	not assessed	not assessed			
4	To educate consumers, other health-care professionals, and the public on the benefits of Occupational Therapy as a service and how those services fit into a continuum of healthcare services.	100.0%	100.0%			
5	Foster an ongoing dialogue with fieldwork supervisors to establish open communication and consistency within the fieldwork protion of the OTA program.	not assessed	not assessed			

#### Total % of Students Meeting Course Objectives Benchmark 75%

	Course Objectives - OTA 280 FA 08	% meeting course objective
1	Implement treatment strategies.	100.0%
2	Recommend equipment to increase client independence.	100.0%
3	Demonstrate competence in clinical safety skills.	88.9%
4	Modify a treatment strategy to increase client safety.	91.7%
5	Demonstrate understanding of the occupational therapy assistant's role in management.	not assessed
6	Exhibit professional behaviors during a simulated clinical interview.	not assessed
7	Identify and correct errors in supervision compliance during simulated clinical tasks.	91.7%
8	Demonstrate awareness of legal and ethical issues related to service provision.	100.0%
9	Complete a research project.	100.0%
10	Communicate the results of a research project.	100.0%
11	Design an occupational therapy program based on community need.	100.0%
12	Prepare inventory, supply, and equipment requirements for an occupational therapy program.	100.0%
13	Comply with care and use recommendations for supplies and equipment.	100.0%
14	Implement quality improvement concepts.	100.0%
15	Design a 3 year professional development plan.	100.0%

	Action Plan OTA 280				
bj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

# Respiratory Therapy Program Program and Course Level Assessment of Student Learning Results 2008-2009

#### Respiratory Therapy

#### Respiratory Therapy Program Mission Statement

The mission of the Respiratory Terapy programs is to graduate competent respiratory care practitioners by providing a high quality, academic and clinical education with an emphasis in critical thinking skills and patient safety. The Respiratory Therapy program will provide each graduate with the skills necessary to potentially make a difference in the lives of patients seeking treatment in a health care facility.

# Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 75%

	Respiratory Therapy Program Goals	All RST Courses	RST 223	
1	Demonstrate the ability to comprehend, apply and evaluate clinical information relevant to the role of Respiratory Therapy.	88.6%	88.6%	
2	Demonstrate technical profiency in all skills necessary to fulfill their role as a Respiratory Therapist.	88.6%	88.6%	
3	Demonstrate professional behavior consistent with employer and American Association for Respiratory Care expectations for the Respiratory Therapist.	89.5%	89.5%	

## **Total % of Students Meeting Course Objectives Benchmark 75%**

	Course Objectives - RST 223 FA 08	% meeting course objective			
1	Analyze patient evaluation data and test results to determine the most likely disease process.	89.5%			
2	Describe the pathology associated with the major pulmonary diseases.	87.7%			
3	Develop therapeutic plans for selected patients based on their disease manifestations.	89.5%			
	Action Plan RST 223				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	ı	Resources needed	,
	No actions proposed.				

#### **DIVISION LEVEL**

# ACCOUNTING/BUSINESS/ECONOMIC ASSESSMENT OF STUDENT LEARNING RESULTS 2008-2009

# **Total % of Students Meeting Division Outcomes by Program Benchmark 70%**

	Business/Accounting/Economics Division Outcomes	All Division Courses	ACC	BUS	ECO
1	Written Communication	74.3%	<b>Courses</b> 53.8%	80.2%	<b>Courses</b> 78.9%
2	Oral Communication	77.4%	54.8%	79.6%	78.6%
3	Critical Thinking	74.2%	55.3%	80.4%	78.9%
4	Applies Technology	76.7%	53.5%	80.4%	78.7%
5	Demographic Analysis	76.3%	53.5%	80.4%	not assessed
6	Global Awareness	80.2%	not assessed	80.4%	79.2%
7	Critical Analysis	73.9%	55.3%	79.9%	79.0%

#### **ACCOUNTING (ACC)**

# Program and Course Level Assessment of Student Learning Results 2008-2009

#### Accounting

#### **Accounting Mission Statement**

The mission of the Accounting program at Ozarks Technical Community College is to provide students with the necessary knowledge and skills to perform as a full-charged bookkeeper in a small business, or an accounting assistant in a large corporation.

# Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 70%

	Accounting Program Goals	All ACC Courses	ACC 120	ACC 125	ACC 220	ACC 225	
	Students will be able to analyze basic small business accounting transactions and properly record them in an accounting system.	53.5%	53.6%	53.1%	53.6%	54.3%	
	Students will be able to prepare federal and state payroll reports and tax deposits.	58.6%	not assessed	48.4%	60.6%	not assessed	
	Students will be able to prepare basic financial statements budgets for a small business.	57.1%	56.1%	53.7%	65.5%	46.8%	
	Students will demonstrate an understanding of a merchadising inventory accounting system.	58.0%	not assessed	58.0%	not assessed	not assessed	
	Students will be able to record transactions in a computerized accounting software and basic management reports from it.	53.5%	52.2%	not assessed	52.3%	60.4%	
	Students will be able to record transactions infolving disposal and/or exchange of fixed assests.	52.9%	not assessed	47.5%	not assessed	85.2%	
	Students will be able to manage cash and banking transactions for a small business.	43.8%	not assessed	43.8%	not assessed	not assessed	
	Students will be able to demonstrate an understanding of an accounts receivable and/or accounts payable clerk's functions.	43.8%	not assessed	43.8%	not assessed	not assessed	
9	Demonstrate ability to research current government tax laws.	not assessed	not assessed	not assessed	not assessed	not assessed	

# Total % of Students Meeting Course Objectives Benchmark 70%

	Course Objectives - ACC 120 FA 08	% meeting course			
1	Identify users of, and career opportunities in accounting.	objective 73.6%			
	Analyze business transactions and identify how they related to financial statements.	25.0%			
3	Create and explain the use of a trail balance and financial statements.	59.5%			
4	Write transactions in a journal and post entries to a ledger.	32.1%	1		
5	Prepare a work sheet and explain adjusting entries.	not assessed			
6	Prepare financial statements from an adjusted trial balance.	not assessed			
7	Describe and prepare closing entries.	58.9%			
8	Prepare a post-closing trial balance.	71.4%			
9	Prepare and explain petty cash reimbursement and bank reconciliation.	not assessed			
10	Calculate an employee's gross and net pay.	not assessed			
11	Record payroll data from the payroll register to the general journal.	not assessed			
12	Compute and record employer's payroll taxes.	not assessed			
13	Describe the use of special journals and subsidiary ledgers.	not assessed			
14	Describe merchandising activities and identify income components for a merchandising company.	not assessed			
15	Compute the gross margin ratio and explain its use to assess profitability.	not assessed			
16	Explain accrual accounting and how their adjustments link to financial statements.	not assessed			
17	Define and prepare multiple-step income statements and a classified balance sheet.	not assessed			
	Action Plan ACC 120				
Obj. #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

	Course Objectives - ACC 125 SP 09	% meeting course objective
1	Demonstrate an understanding of accounts receivables and how to write them off using the both the direct and allowance method.	31.3%
2	Demonstrate an understanding of how to record, discount, and adjust for interest for notes receivables and payables.	50.0%
3	Display an understnading of merchandise inventory and how to record transactions using both the periodic and perpetual inventory systems.	48.4%
4	Calculate and record plant assets cost, deprecitation, and disposals and exchange.	39.1%
5	Identify characteristics of corporations and how to record their equity transactions.	57.0%
6	Identify the tools of financial statement analysis.	54.9%
7	Identify the building blocks of financial statement analysis.	53.1%
8	Define product and period costs and explain how they impact financial statements.	75.0%
9	Apply departmental accounting concepts and distinguish between direct and indirect costs.	46.9%
10	Identify common types of organizations with partnership characteristics.	not assessed

	Action Plan ACC 125				
Obj.	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

	Course Objectives ACC 220 SP 09	% meeting course objective
1	List and define the major elements of the financial statements.	67.2%
2	Describe the relationships expressed in the accounting equation and record business events in the general ledger.	41.9%
3	Record basic accrual transactions.	67.7%
4	Prepare financial statements based on accrual accounting.	50.8%
5	Explain the matching concept.	88.7%
6	Identify and record the events that need adjusting and closing entries.	62.9%
7	Explain and report inventory transactions in the double-entry accounting system.	71.5%
8	Explain how different inventory cost flow methods affect financial statements.	73.1%
9	Demonstrate how the allowance method and direct method affects the financial statements.	44.1%
10	Identify different types of long-term operational assets and compare and contrast how different depreciation methods affect financial statements.	55.8%
11	Prepare a statement of cash flows.	48.0%

	Action Plan ACC 220				
Obj.	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

	Course Objectives - ACC 225 SP 09	% meeting course objective			
1	List major activities that managers carryout and functions of managerial accountants.	70.4%			
2	Define the major elements of managerial accounting.	88.9%			
3	Assign cost as either product or period costs.	77.8%			
4	Explain the function of variable and fixed costs.	85.2%			
5	Distinguish production activities as either job-order costing or process costing.	96.3%			
6	Calculate cost of goods sold.	29.6%	1		
7	Identify the five levels of activity defined by activity-based costing.	51.9%			
8	Calculate the predetermined overhead rate.	18.5%			
9	Create a cost formula using the high-low method.	66.7%			
10	Calculate and define contribution margin.	14.8%			
11	Calculate the break-even point in sales and units given specific information.	66.7%			
12	Understand and calculate managerial accounting variances.	49.4%			
	Action Plan ACC 225				
Obj.	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/lo
#			needed	requested	priority
	No actions proposed.				

#### **BUSINESS (BUS)**

# Program and Course Level Assessment of Student Learning Results 2008-2009

#### **Business**

#### **Business Mission Statement**

The mission of the Business Technology Program at Ozarks Technical Community College is to equip students with the necessary knowledge, skills, and competencies to provide administrative support to managerial staff in a variety to business settings.

The mission of the Business and Marketing program at OTC is to provide students with the knowledge, skills, and confidence to gain new or enhanced employment in business, administrative services, and/or marketing or to pursue advanced education at a four-year institution. All program emphases must be responsive to changes in the business community-locally, nationally, and globally.

### Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 70%

	Business Program Goals	All BUS Courses	BUS 110	BUS 130	BUS 140	BUS 150	BUS 260	
	Knowledge Base: Students will demonstrate knowledge of business terminology, business technology, professional business communication, standards, major business concepts, theoretical perspectives, and historical and comtemporary trends in business.	79.6%	82.1%	75.1%	79.9%	78.7%	73.6%	
2	Critical Thinking and Research Methods: Students will learn to recognize and research business issues, use creative business planning and analysis, and identify business regulations to solve problems related to the business environment.	80.2%	82.1%	79.0%	not assessed	78.7%	73.6%	
3	Application of Business: Students will apply business principles and regulations to organizational issues, recognizing and respecting individual industry differences within the complexity of the domestic and global economy.	80.2%	82.1%	78.6%	79.9%	76.7%	73.6%	
4	Values: Students will be able to identify ethical issues, know how to apply ethical principles and evaluate other values that are the foundation of the business environment.	80.7%	84.2%	78.6%	79.9%	78.5%	67.6%	

#### **Total % of Students Meeting Course Objectives**

#### Benchmark 70%

	Course Objectives - BUS 110 FA 08	% meeting course objective			
1	Identify terms and vocabulary that are commonly used in business.	84.7%			
2	Identify the operational considerations of various types and sizes of businesses.	79.9%			
3	Develop knowledge of the major considerations involving e-business and global trading powers.	77.9%			
4	Create the fundamentals of a business plan.	72.9%	1		
5	Develop knowledge of the key components of making good financial decisions for businesses and in one's own personal life.	82.7%			
	Action Plan BUS 110				
Obj. #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

	Course Objectives - BUS 130 SP 09	% meeting course objective			
1	Summarize key terminology in marketing.	72.2%			
2	Design marketing tools for analyzing customers, competition, and for assessing a firm's strengths, weaknesses, opportunities, and threats.	74.0%			
3	Recognize how marketing contributes the strategic objectives of a firm.	76.0%			
4	Apply ethical decision-making strategies.	81.8%			
5	Create a marketing plan, which includes research, recommendations, and conclusions for a firm.	82.0%			
	Action Plan BUS 130				
Obj. #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

	Course Objectives - BUS 140 FA 08	% meeting course objective			
1	Compose, write, and format effective written business communications.	79.9%			
2	Prepare and present oral communication in a business context.	96.4%	1		
3	Use computer software to prepare business documents, give oral presentations, and send electronic communiction.	73.5%			
4	Use the Internet to research topics and supply resources for reports, as well as evaluate online information.	89.3%			
	Action Plan BUS 140				
Obj. #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

	Course Objectives - BUS 150 FA 08	% meeting course objective			
1	Evaluate the tasks and responsibilities of management.	82.1%			
2	Evaluate planning, decision-making and strategic management.	80.6%			
3	Compare the challenges and demands of the various levels of management.	73.0%			
4	Analyze the organizational structure of business.	77.2%	1		
5	Discuss the challenges of human resources and relative laws.	76.2%	1		
6	Evaluate the impact of leadership in motivating employees.	84.7%	1		
7	Discuss the integration of ethical and social responsibility into the management process.	77.2%			
8	Analyze the basic elements of control to manage quality and productivity.	78.4%			
	Action Plan BUS 150				
Obj. #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/le
	No actions proposed.				

	Course Objectives - BUS 260 SP 08	% meeting course objective			
1	Identify terms and vocabulary that are commonly used in business.	60.0%			
2	Analyze business case studies and provide recommendations for problem solving and implementing change.	83.9%	1		
3	Identify and explain business and corporate-level strategies used to compete and gain market share.	72.0%			
4	Describe the internal and external environment of a business.	80.0%			
5	Analyze the factors that create a sustainable competitive advantage.	73.6%			
	Action Plan BUS 260				
Obj. #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

#### **ECONOMICS**

### Program and Course Level Assessment of Student Learning Results 2008-2009

#### **Economics**

#### **Economics Mission Statement**

The mission of the Economics department is to develop an awareness of the basic economic principles that govern the world we live in, including an awareness of the tradeoffs involved and the differing perspectives of others.

### Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 70%

	Economics Department Goals	All ECO Courses	ECO 270	
1	Students will be able to understand the basic workings of the economy, from both a microeconomic and macroeconomic standpoint.	78.7%	78.7%	
2	Students will be able to examine simple economic policies, determine their likely outcomes, and access their desireability.	78.3%	78.3%	
3	Students will be able to identify the roles of the various participants in the economy and their toles within it.	79.3%	79.3%	
4	Students will be able to recognize the importance of values in the economic decission process and that people with different backgrounds will make different choices.	79.1%	79.1%	

## Total % of Students Meeting Course Objectives Benchmark 70%

	Course Objectives - ECO 270 FA 08	% meeting course objective		
1	Define basic economic terms and concepts.	87.4%		
2	Explain the role of the consumers, businesses, and the government in the U.S. economy.	81.6%		
3	Create a demand curve, and use supply and demand analysis to explain real world events.	73.8%		
4	Define the concepts of inflation and unemployment and desribe the relationship between them.	73.6%		
5	List the policies available to manipulate the economy, analyze the likely results from each, choose the most appropriate of these policies, and defend your conclussion.	81.7%		
6	Describe the basic structure and duties of the federal reserve system.	87.9%		
7	Explain how an individual's beliefs and experiences can alter the economic decission process.	73.8%		
	Action Plan ECO 270			
Obj. #	Action proposed to improve student learning and/or teaching.	Target Date	ı	Resources needed

No actions proposed.

# DIVISION LEVEL GENERAL EDUCATION ASSESSMENT OF STUDENT LEARNING RESULTS 2008-2009

#### **Total % of Students Meeting Division Outcomes by General Education Department**

		General Education Division Outcomes	All Division Courses	Behavioral Sciences	Biological Clinical Sci.	Biological Sciences	Commun.	English
	1	Written Communication	72.8%	82.2%	not assessed	76.0%	not assessed	68.5%
	2	Oral Communication	72.3%	82.2%	not assessed	76.0%	72.5%	not assessed
	3	Higher Order Thinking	74.3%	65.9%	83.3%	86.1%	70.6%	69.3%
	4	Managing Information	74.5%	67.0%	79.9%	86.1%	67.8%	68.4%
Ī	5	Personal and Global Awareness	70.2%	66.4%	not assessed	80.0%	75.9%	67.6%

General Education Division Outcomes		All Division Courses	Fine Arts Humanities	Math	Physical Sciences	Social Sciences
1	Written Communication	72.8%	61.5%	not assessed	81.6%	78.1%
2	Oral Communication	72.3%	61.5%	61.0%	81.6%	78.1%
3	Higher Order Thinking	74.3%	68.6%	61.0%	81.2%	77.5%
4	Managing Information	74.5%	61.9%	not assessed	81.5%	73.4%
5	Personal and Global Awareness	70.2%	59.9%	59.5%	not assessed	74.0%

#### **Total % of Students Meeting Division Outcomes by Course Code and Department Goals**

	General Education Division Outcomes	All Division Courses	CRJ Course	EDU Courses	PSY Courses	BCS Courses	BIO Courses	HLT Course
1	Written Communication	72.8%	82.2%	not assessed	not assessed	not assessed	76.0%	not assessed
2	Oral Communication	72.3%	82.2%	not assessed	not assessed	not assessed	76.0%	not assessed
3	Higher Order Thinking	74.3%	88.9%	not assessed	65.8%	83.3%	86.1%	not assessed
4	Managing Information	74.5%	81.7%	not assessed	66.6%	79.9%	86.1%	not assessed
5	Personal and Global Awareness	70.2%	88.9%	not assessed	66.1%	not assessed	80.0%	not assessed

	General Education Division Outcomes	All Division Courses	COM/SPN Courses	Dev. Ed ENG Courses	College Level ENG Courses	ART/MUS THR Courses	HUM/PHL Courses	Dev Ed MTH Courses	College Level MTH Courses
1	Written Communication	72.8%	not assessed	65.9%	69.1%	62.1%	60.5%	not assessed	not assessed
2	Oral Communication	72.3%	72.5%	not assessed	not assessed	62.1%	60.5%	65.2%	58.4%
3	Higher Order Thinking	74.3%	70.6%	72.5%	69.2%	68.6%	not assessed	65.2%	58.4%
4	Managing Information	74.5%	67.8%	72.5%	67.6%	65.5%	57.3%	not assessed	not assessed
5	Personal and Global Awareness	70.2%	75.9%	not assessed	67.6%	66.6%	53.7%	69.1%	52.9%

	General Education Division Outcomes		CHM Courses	PHY Courses	GRY/ HST Courses	PLS Courses	ANT/SOC Courses
1	Written Communication	72.8%	not assessed	81.6%	70.0%	not assessed	79.5%
2	Oral Communication	72.3%	not assessed	81.6%	70.0%	not assessed	79.5%
3	Higher Order Thinking	74.3%	80.6%	82.9%	72.6%	87.6%	79.5%
4	Managing Information	74.5%	80.7%	83.3%	69.0%	87.4%	78.7%
5	Personal and Global Awareness	70.2%	not assessed	not assessed	68.1%	87.6%	78.5%

#### **BEHAVIORAL SCIENCES (CRJ, EDU, PSY)**

### Department and Course Level Assessment of Student Learning Results 2008-2009

#### **Criminal Justice**

#### **Criminal Justice Mission Statement**

The mission of Criminal Justice is to develop and disseminate knowledge about crime, criminal justice, deviance, and social organization through teaching and equip students to think critically about the causes and consequences of crime, deviance, and evolving issues in the field of criminal justice.

### Total % of Students Meeting Department Goals Through Combined Course Results Benchmark 70%

		All CRJ	
	Criminal Justice Department Goals	Courses	CRJ 110
1	Students will be able to discuss the history and evolution of the American criminal justice system.	93.3%	93.3%
2	Students will be able to explain the structure of the various criminal justice entities, their relationship and interconnectedness within the community, state, and federal systems.	80.0%	80.0%
3	Articulate legal language, terms, laws, and theories, concerning crime, the criminal, causes, treatments and solutions within the culture and society from a historical to present perspective.	82.2%	82.2%
4	Students will develop proficiencies as a professional in the field of criminal justice, including both written and oral communication, in order to work effectively within the community.	75.6%	75.6%
5	Recognize the interactive relationship between social forces, culture, diversity and justice.	88.9%	88.9%
6	Describe and value the importance of ethics and ethical behavior as a professional and in the achievement of justice.	88.9%	88.9%
7	Be able to critically analyze justice issues, utilize systematic inquiry and evaluate justice research.	88.9%	88.9%

	Course Objectives - CRJ 110 SP 09	% meeting course objective
1	Explain the structure of the federal and state court systems.	93.3%
2	Explain various theories of crime and its causes.	82.2%
3	Discuss the stucture of various criminal justice entities.	88.9%
4	Discuss the relationship of the criminal justice subsystems within the community.	68.9%
5	Identify current issues in policing, including proactive and reactive law enforcement.	75.6%
6	Explain the structure of the federal and state court systems.	64.4%
7	Identify sentencing patterns, both historical and current.	88.9%
8	Discuss the role of local correctional faciltiies, state facilities and the federal facilities.	84.4%
	Action Plan CRJ 110	
Ohi	Action proposed to improve student learning and/or	Taraet Date

	Action Plan CRJ 110				
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low
#	teaching.		needed	requested	priority
	No actions proposed.				

### Psychology

#### **Psychology Department Mission Statement**

The mission of the Psychology Department is to set high student expectations and academic standards as we challenge ourselves and our students to pursue the knowledge, skills, and values consistent with the science and application of psychology.

	Psychology Department Goals	All PSY Courses	PSY 110	PSY 130	PSY 260	PSY 270	PSY 285
1	Students will demonstrate knowledge of psychological terminology, major concepts, theoretical perspectives, empirical findings, and historical and contemporary trends in psychology.	70.2%	77.4%	72.6%	67.0%	73.5%	77.8%
2	Students will use critical thinking, creativity, skeptical inquiry, and apply the scientific approach to seek answers and solve problems related to behavior and mental processes.	64.8%	54.3%	61.6%	67.7%	78.1%	74.7%
3	Students will apply psychological principles to personal, social, and organizational issues.	66.7%	59.0%	74.5%	67.1%	80.1%	78.4%
4	Students will demonstrate the ability to weigh evidence, tolerate ambiguity, act ethically, and reflect the breadth of diverse values that are the underpinnings of psychology as a discipline and present in today's world.	65.4%	57.4%	77.2%	67.2%	82.4%	75.3%

	Course Objectives - PSY 110 FA 08	% meeting course objective			
1	Define basic psychological terminology.	77.4%	]		
2	Describe working knowledge of basic psychological concepts.	66.9%			
3	Articulate ability to apply key concepts to specific examples.	72.6%			
4	Demonstrate an understanding of the relationship between academic psychology and reality.	32.1%			
5	Apply basic psychological concepts to self and to life.	75.3%			
6	Develop and communicate hypothetical explanations for individual human behavior within the larger scale historical and social context.	45.6%			
7	Utilize cultural, behavioral and historical knowledge to clarify and articulate a personal value system.	61.5%			
	Action Plan PSY 110				
-	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	
#	teaching.		needed	requested	
l	No actions proposed.				

	Course Objectives - PSY 130 SP 09	% meeting course objective			
1	Understand the basic terminology in human development.	74.2%			
2	Develop a working knowledge of basic concepts within the field.	67.1%			
3	Relate the key concepts to specific examples in everyday life.	61.6%			
4	Describe the relationship between the theoretical and applicable descriptions of human development.	76.3%			
5	Develop the ability to apply basic psychological concepts to self and life.	81.6%			
6	Develop and communicate hypothetical explanations for individual human behavior within the large-scale historical and social context.	77.2%			
	Action Plan PSY 130				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

		% meeting			
	Course Objectives - PSY 260 SP 09	course			
		objective			
1	Develop and communicate hypothetical explanations				
	for individual human behavior within the field of child	69.7%			
	psychology.				
2	Define the basic terminology and concepts used in the	63.3%			
	field of child development.	03.370			
3	Apply key concepts to specific examples in working	75.1%			
	with children.	75.170			
4	Know the relationship between child psychology and	67.2%			
	reality.	07.270			
5	Recognize the ramifications of one's value decisions on	71.3%			
	self and others.	, 2.5,0			
6	Explain social institutions, structures, and processes				
	across a range of historical periods and cultures.	58.9%			
7	Articulate the interconnectedness of people and places	64.3%			
	around the globe.				
	Action Plan PSY 260				
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low
#					
#	teaching.		needed	requested	priority
#	No actions proposed.		neeaea	requested	priority
#	·	% meeting	needed	requested	priority
#	·	% meeting course	needed	requested	priority
#	No actions proposed.		needed	requested	priority
1	No actions proposed.	course objective	needed	requested	priority
	No actions proposed.  Course Objectives - PSY 270 SP 09	course	needed	requested	priority
1	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of	course objective 80.4%	needed	requested	priority
1	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.	course objective	needed	requested	priority
1	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.	course objective 80.4% 63.2%	needed	requested	priority
1 2	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural	course objective 80.4%	needed	requested	priority
1 2 3	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural norms related to aging.	course objective 80.4% 63.2% 84.7%	needed	requested	priority
1 2	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural norms related to aging.  Understand how to apply psychological concepts to	course objective 80.4% 63.2%	needed	requested	priority
1 2 3	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural norms related to aging.  Understand how to apply psychological concepts to self and to adult life.	course objective 80.4% 63.2% 84.7%	needed	requested	priority
1 2 3	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural norms related to aging.  Understand how to apply psychological concepts to self and to adult life.  Develop and communicate hypothetical explanatons	course objective 80.4% 63.2% 84.7% 79.0%	needed	requested	priority
1 2 3	Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural norms related to aging.  Understand how to apply psychological concepts to self and to adult life.  Develop and communicate hypothetical explanatons for individual human behavior with the large-scale	course objective 80.4% 63.2% 84.7%	needed	requested	priority
1 2 3	No actions proposed.  Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural norms related to aging.  Understand how to apply psychological concepts to self and to adult life.  Develop and communicate hypothetical explanatons	course objective 80.4% 63.2% 84.7% 79.0%	needed	requested	priority
1 2 3	Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural norms related to aging.  Understand how to apply psychological concepts to self and to adult life.  Develop and communicate hypothetical explanatons for individual human behavior with the large-scale historical and social context.	course objective 80.4% 63.2% 84.7% 79.0%	needed	requested	priority
1 2 3 4 5	Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging. Describe the basic concepts of aging as they relate to later development. Describe the relationship between aging and cultural norms related to aging. Understand how to apply psychological concepts to self and to adult life. Develop and communicate hypothetical explanatons for individual human behavior with the large-scale historical and social context.  Action Plan PSY 270	course objective 80.4% 63.2% 84.7% 79.0%			
1 2 3 4 5 5 Obj	Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging.  Describe the basic concepts of aging as they relate to later development.  Describe the relationship between aging and cultural norms related to aging.  Understand how to apply psychological concepts to self and to adult life.  Develop and communicate hypothetical explanatons for individual human behavior with the large-scale historical and social context.  Action Plan PSY 270  Action proposed to improve student learning and/or	course objective 80.4% 63.2% 84.7% 79.0%	Resources	\$ amount	High/low
1 2 3 4 5	Course Objectives - PSY 270 SP 09  Define the basic terminology used in Psychology of Aging. Describe the basic concepts of aging as they relate to later development. Describe the relationship between aging and cultural norms related to aging. Understand how to apply psychological concepts to self and to adult life. Develop and communicate hypothetical explanatons for individual human behavior with the large-scale historical and social context.  Action Plan PSY 270	course objective 80.4% 63.2% 84.7% 79.0%			

Course Objectives - PSY 285 SP 09	% meeting course objective
Define the basic terminology of abnormal psych	72.7%
Develop a working knowledge of basic concepts abnormal behavior and psychotherapy.	s of 88.6%
3 Describe the concepts and relate them to specif examples in the field.	ic 90.9%
4 Understand the relationship between abnormal normal behavior and describe the clinical setting	•
5 Present information clearly and concisely, using traditional and contemporary technologies.	68.2%
6 Evaluate information for its currency, usefulness truthfulness, and accuracy.	69.3%
7 Explain social institutions, sturctures, and proce across a range of historical periods and cultures	

Action Plan PSY 285							
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low		
#	teaching.		needed	requested	priority		
	No actions proposed.						

### **BIOLOGICAL CLINICAL SCIENCES (BCS)**

## Department and Course Level Assessment of Student Learning Results 2008-2009

### **Biological Clinical Sciences**

#### **Biological Clinical Science Department Mission Statement**

The mission of the Allied Health science area within the science department at Ozarks Technical Community College is to provide instruction in the basic human sciences. These courses enable students to develop an understanding of the normal structure and function of the human body through various lecture and laboratories. Students also develop an understanding of the desease process and infectious agents that can cause diesase.

	Biological Clinical Science Department Goals	All BCS Courses	BCS 120	BCS 130	BCS 140	BCS 210		
1	Illustrate how feedback systems serve to maintain homeostasis.	84.4%	83.0%	81.6%	not assessed	85.0%		
	Deominstrate knowledge of cell structure, function, and reporduction.	77.7%	77.9%	81.6%	66.5%	85.0%		
3	Apply basic knowledge of molecular genetics.	80.2%	80.2%	not assessed	not assessed	not assessed		
	Analyze case studies for normal and abnormal body functions.	82.7%	77.1%	85.2%	not assessed	85.0%		
5	Categorize disease processes.	73.9%	83.6%	85.2%	70.0%	87.4%		

	Course Objectives - BCS 120 SP 09	% meeting course
	course objectives - bcs 120 Sr 05	objective
1	Define and explain anatomy, physiology and homeostasis.	88.6%
2	Identify and analyze basic atomic structure, cellular components, functions within the cells and mitosis.	85.4%
3	Destinguish major tissue types and be able to recognize the subsets within each type.	76.6%
4	Name, describe, and identify the bones of the skeletal system and major structures of each.	78.2%
5	Outline the major steps involved in muscle fiber contraction.	71.0%
6	Identify the major skeletal muscles of the human body.	78.5%
7	Identify the major structures of the nervous system and list the sequence of events that generate an action potential.	79.6%
8	Describe the location, histology, hormoanes and functions of the major endocrine glandular system.	70.7%
9	Distinguish the physical characteristis and principal components of blood and functions of the different cells.	82.0%
10	Trace the pathway of blood flow in the body and identify the structures of the cardiovascular system.	81.0%
11	Compare and contrast the functions of the lymphatic system with the cardiovascular and immune systems.	84.9%
12	Identify the major structures of the digestive, respiratory, urinary, and reproductive systems.	85.0%

#	teaching.	ruiget Date	needed	requested
Obi	Action Plan BCS 120 Action proposed to improve student learning and/or	Target Date	Resources	\$ amount
21	Dissect the cat cadaver in order to identify the major muscles, body systems and parts thereof.	not assessed		
20	Identigy the bones and muscles from models.	not assessed		
19	Identify tissues from microscope slides.	80.3%		
18	Analyze movements through cellular membranes.	87.5%		
17	Be able to identify the chemical and structural components of a eukaryotic cell.	75.7%		
16	Develop the skills necessary to operate a compound microscope.	79.9%		
15	Display knowledge of basic genetic terminology.	83.1%		
14	Explain homeostatic regulation of water, electolyte, and acid-base balance.	82.8%		
13	Link the functions of the digestive, respiratory, urinary, and reproductive systems in maintaining homeostasis.	88.8%		

No actions proposed.

High/low

priority

	Course Objectives - BCS 130 FA 08	% meeting course objective
1	List the 6 classes of nutrients and describe which are organic and which are energy yielding.	68.6%
2	Identify and explain the five characteristics of a nutritious diet.	78.5%
3	Identify the components of the My Pyramid and descrive how RDAs are established for energy and nutrient intake.	78.8%
4	Be able to read and interpret a food label.	77.1%
5	Describe the mechanical and chemical digestion processes including: absorption, transportation, and storage of nutrients.	81.6%
6	Describe the role of the energy yeilding nutrients in the body: 6a: carbohydrates, 6b: Lipids, 6c: proteins.	not assessed
7	Describe the role of non-energy yielding nutrients in the body: 7a: vitamins, 7b: minerals, 7c: water.	not assessed
8	Describe the role of nutrition in the maintaining of over- all health, including weight management, eating disorders, and diet related diseases such as scurvy, pellagra, and beri beri.	85.8%
9	Explain the effects of varying nutrient needs from gestation through old age.	85.8%
10	Complete and interpret and discuss a 5 day self study diet analysis.	91.3%
11	Describe food processing techniques and the effect they have on nutritional values.	75.8%
12	Describe the types of food borne illness and their symptoms.	84.0%

	symptoms.									
	Action Plan BCS 130									
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low					
#	teaching.		needed	requested	priority					
	No actions proposed.									

	Course Objectives - BCS 140 SP 09	% meeting course objective	
1	Demonstrate knowledge of anatomical position and associated terminology.	83.0%	
2	Identify the major structures of a human cell and describe the function of eacb cellular organelle.	69.0%	
3	Identify the phases of the cell cycle.	74.1%	
4	Demonstrate knowledge of the structures and locations of each tissue type.	66.4%	
5	Demonstrate knowledge of the structure and locations of organs involved with support amd movement of the human body.	70.8%	
6	Demonstrate knowledge of the structure and locations of organs involved with integration and control of the human body.	72.7%	
7	Demonstrate knowledge of the structure and locations of organs involved with maintenance of the human body.	68.4%	
8	Describe the stages of reproduction, embryonic, and fetal development of the human body.	67.1%	
9	Demonstrate knowledge of the parts of a microscope and their proper usage.	79.1%	
10	Demonstrate proper dissection techniques.	70.8%	
11	Identify specific tissues through microscopic analysis.	53.6%	
12	Identify body structures using human models and comparative mammalian structures.	79.2%	
	Action Plan BCS 140		
#	Action proposed to imporve student learning and/or teaching.	Target Date	Resources needed

No actions proposed.

High/low priority

	Course Objectives - BCS 210 SP 09	% meeting course objective
1	Define the terminology of disease process.	87.4%
2	Explain how cells, tissue, and organ systems are changed by the process of inflammation, healing, immunity, and neoplasia.	84.1%
3	Explain how homeostasis is impacted and disrupted by diesease processes.	89.7%
4	Classify cellular injury, how it impacts homestasis, and how the body compensates for it.	81.9%
5	Demostrate changes in the antaomy and physiology of major body systems that occur due disease.	85.1%
6	Explain the correlation between pathologocial change and signs and symptoms of disease.	82.8%
7	Explain how the body compensates for homeostatic changes through the various body systems during disease processes.	85.2%
8	Evaluate the etiologies, signs and symptoms, and treatments of major disease processes.	85.3%
	Action Plan BCS 210	

Action Plan BCS 210								
Obj	Action proposed to improve student learning and/or	· g - · - · · · ·		\$ amount	High/low			
#	teaching.		needed	requested	priority			
	No actions proposed.							

### **BIOLOGICAL SCIENCES (BIO, HLT)**

## Department and Course Level Assessment of Student Learning Results 2008-2009

### Biology

#### **Biology Department Mission Statement**

The mission of the Biological Science area of the science Department at Ozarks Technical Community College is to enable students to develop an understanding of the principles and laboratory procedures in the Natural Sciences. These courses foster the ability of a student to apply the methods of scientific inquiry. After completion of the required course sequence at OTC, students should have developed an understanding of the impact humans have on their environment.

	Biology Department Goals	All BIO Courses	BIO 100	BIO 105	BIO 160	BIO 270
1	Students will be able to describe how living things evolve.	76.0%	75.5%	80.2%	81.8%	76.9%
2	Students will be able to recognize human impacts on the natural environment.	80.0%	82.0%	77.5%	73.6%	88.1%
3	Students will be able to describe how the scientific method is used in problem solving and evaluating evidence.	86.1%	84.0%	95.5%	86.7%	85.6%

	Course Objectives - BIO 100 FA 08	% meeting course objective
1	List the characteristics of life.	84.6%
2	Describe the scientific method and explain hypothesis testing.	85.0%
3	Describe how cells capture and use energy.	65.7%
4	Explain patterns of inheritance and explain how inheritance is related to evolution.	74.9%
5	Describe how life on Earth has changed over time.	72.6%
6	Define ecosystem and species interactions and describe how humans impact ecosystems.	79.1%
7	Explain nutrient cycling within ecosystems and how energy flows through ecosystems.	82.0%
8	Acquire, graph and analyze laboratory data.	87.4%
9	Evaluate conclusions regarding a hypothesis.	78.9%
10	Demonstrate knowledge of the parts of the microscope and their proper usage.	77.7%
11	Distinguish organisms based on cell type and cell structure.	80.5%
12	Classify animals and plants by key characteristics and the use of a dichotomous key.	71.6%
13	Explain how cells function in the process of digestion and respiration.	65.5%
14	Identify the stages of mitosis and meiosis.	71.2%
15	Explain patterns of inheritance.	71.4%

Action Plan BIO 100							
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low		
#	teaching.		needed	requested	priority		
	No actions proposed.						

Course Objectives - BIO 105 SP 09	% meeting course objective
1 Apply the scientific method, hypothesis testin the laws of thermodynamics.	g, and 82.0%
Distinguish between energy flow and nutrient through trophic levels in ecosystems.	cycling 74.4%
3 Describe population dynamics, emphasizing ti population, its history, and implications of its	
4 Distinguish between renewable and nonrenew resources.	vable 77.5%
5 Identify different types of ecosystems, how an they are disturbed, and how humans affect the	'
6 Explain the evolution of natural ecosystems a organisms have adapted to them.	nd how 82.3%
7 Explain how biodiversity impacts ecosystem h the causes and implications of species extinct	
Describe how environmental risks are assesse environmental policy is implemented.	82.9%
9 Explain the importance of a global perspective understanding the relationship between hum their environment.	
10 Explain the direct relationship between educa poverty, and environmental degredation.	73.0%
11 Collect and analyze data from field studies an laboratory.	d in the 100.0%
12 Graph and interpret experimental data.	100.0%
13 Understand and communicate conclusions in laboratory reports.	100.0%
Action Plan BIO 105	

	Action Plan BIO 105				
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low
#	teaching.		needed	requested	priority
	No actions proposed.				

		% meeting	]			
	Course Objectives - BIO 160 SP 09	course				
1	Explain how to use the scientific method and to	objective	1			
1	develop and test hypotheses in order to draw	89.3%				
	conclusions.	05.570				
2	Compare and contrast the types of chemical bonding,		1			
_	list the properties of water, and describe the structure					
	and properties of organic molecules.	81.4%				
	and properties or organic molecules.					
3	Describe cell structure and function and list and explain		1			
	the different types of cellular transport.	80.0%				
	,,					
4	Describe and summarize the processes of	94.30/	1			
	photosynthesis and cellular respiration.	84.3%				
5	Identify the stages of asexual and sexual cellular					
	division and explain the processes that occur at each	85.0%				
	step of cellular division and sexual life cycles.	63.0%				
6	Explain the molecular basis of inheritance and protein					
	synthesis, and describe the principles of inheritance.	83.6%				
7	Explain and evaluate how species evolve, scientific					
	evidence for evolution, and species phylogeny.	86.4%				
8	Explain how human choices affect living systems,	73.6%				
	organization and nature.					
9	Acquire, graph, and analyze laboratory data.	89.6%	ļ			
10	Evaluate conclusions regarding a hypothesis.	81.3%				
11	Demonstrate knowledge of the parts of the microscope	95.1%				
	and their proper usage.	33.170	I			
12	Explain how cells function in the processes of digestion	71.5%				
	and respiration.					
13	Identify the stages of mitosis and meiosis.	83.3%				
14	Explain patterns of inheritance and employ modern	80.6%				
	molecular genetic techniques.	00.070				
	Action Plan BIO 160					
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	\$ amount	\$ amount
#	teaching.		needed	requested	requested	requested
	No actions proposed.					
			-			

	Course Objectives - BIO 170 SP 09	% meeting course objective			
1	Classify any organism using the taxonomic scheme of Kingdom, Phylum (or Division), Class, Order, Family, Genus, Species.	78.0%			
2	Describe current understanding of the origins of: a) life on earth, b) metabolic diversity, c) glycolysis, d) electron transport, e) photosynthesis, f) eukaryotes, g) multicellularity, and h) animals.	74.4%			
3	Relate the root-shoot structure of plants to their nutrition and transport system.	80.4%			
4	Describe plant development and types of sexual and asexual reproduction.	81.8%			
5	Relate the structural organization of animals to homeostasis and other forms of physiological regulation.	78.0%			
6	Describe animal development and types of sexual and asexual reproduction.	71.4%			
7	Categorize the 15 major biomes of earth and explain their distribution.	93.3%			
8	Construct a population growth curve and explain the factors that alter it.	86.5%			
9	Construct a model ecosystem, including energy flow and nutrient cycling parameters.	85.3%			
	Action Plan BIO 170				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/lo
	No actions proposed.				

### **COMMUNICATION (COM, SPN)**

## Department and Course Level Assessment of Student Learning Results 2008-2009

#### Communication

#### **Communication Department Mission Statement**

The mission of the Department of Communication of Ozarks Technical Community College is to develop students' abilities to effectively communicate in both oral and written form within public speaking, interpersonal, small group, intercultural, and organizational contexts in private, public, community and global settings. Through the study of Communication principles and strategies, students increase their competence in creating, transmitting, receiving and responding to messages, as well as develop the capacity to employ journalistic style and increase awareness of wise media interpretation and use.

	Communication Department Goals	All COM Courses	СОМ 100	COM 105	SPN 101	SPN 102
1	Students will demonstrate improved skills in oral and interpersonal communication.	73.1%	71.7%	70.3%	79.6%	80.8%
2	Students will be able to recognize the value of other cultures and effectively communicate within a multicultural environment.	77.2%	74.1%	79.8%	73.6%	81.2%
3	Students will be able to critically and objectively evaluate information based on its credibility and relevance.	75.4%	74.1%	not assessed	85.1%	94.8%
4	Students will be able to apply basic communication strategies in order to communicate clearly, consisely and effectively.	71.4%	70.1%	not assessed	85.1%	96.1%
5	Students will be able to effectively research topics and present their findings.	67.8%	77.1%	64.6%	not assessed	not assessed
6	Students will use effective methods of communicating in groups.	54.5%	54.5%	not assessed	not assessed	not assessed

	Course Objectives - COM 100 SP 09	% meeting course objective			
1	Explain the principles of human communication and how they are affected by culture, perception, listening, self concept, and verbal and nonverbal messages.	71.5%			
2	Describe how to have effective conversations.	73.2%			
3	Analyze the dynamics of interpersonal relationships and how best to manage interpersonal conflict.	56.3%			
4	Demonstrate skills in interviewing.	70.5%			
5	Demonstrate skills in small group communication and understand dynamics between group members.	54.5%			
6	<ol> <li>Demonstrate skills in public speaking, including topic selection, audience analysis and adaptation, research and effective delivery.</li> </ol>	77.1%			
	Action Plan COM 100				
Oh:	Action proposed to improve student learning and/or	Towns of Dodg	Resources	ć	I //
-		Target Date	needed	\$ amount requested	High/low priority
<i>#</i>	teaching.  No actions proposed.	Target Date		l ·	
-	teaching.	% meeting course objective		l ·	
#	teaching.  No actions proposed.	% meeting course		l ·	
1	teaching.  No actions proposed.  Course Objectives - COM 105 SP 09  Conduct audience analysis in order to effectively tailor	% meeting course objective		l ·	
1 2	teaching.  No actions proposed.  Course Objectives - COM 105 SP 09  Conduct audience analysis in order to effectively tailor a message.  Identify, evaluate, and cite credible research as sources	% meeting course objective 75.5%		l ·	
1 2	teaching.  No actions proposed.  Course Objectives - COM 105 SP 09  Conduct audience analysis in order to effectively tailor a message.  Identify, evaluate, and cite credible research as sources within a speech.  Organize information in a way that is appropriate for	% meeting course objective 75.5% 66.1%		l ·	
1 2 3	teaching.  No actions proposed.  Course Objectives - COM 105 SP 09  Conduct audience analysis in order to effectively tailor a message.  Identify, evaluate, and cite credible research as sources within a speech.  Organize information in a way that is appropriate for the speech topic.	% meeting course objective 75.5% 66.1% 67.2%		l ·	
1 2 3 4	teaching.  No actions proposed.  Course Objectives - COM 105 SP 09  Conduct audience analysis in order to effectively tailor a message.  Identify, evaluate, and cite credible research as sources within a speech.  Organize information in a way that is appropriate for the speech topic.  Demonstrate effective verbal and nonverbal delivery.	% meeting course objective 75.5% 66.1% 67.2%		l ·	
# 1 2 3 4 5 6 6	teaching.  No actions proposed.  Course Objectives - COM 105 SP 09  Conduct audience analysis in order to effectively tailor a message.  Identify, evaluate, and cite credible research as sources within a speech.  Organize information in a way that is appropriate for the speech topic.  Demonstrate effective verbal and nonverbal delivery.  Explain the importance of listening.	% meeting course objective 75.5% 66.1% 67.2% 72.0% 72.8%		l ·	
# 1 2 3 4 5 6 6	teaching.  No actions proposed.  Course Objectives - COM 105 SP 09  Conduct audience analysis in order to effectively tailor a message.  Identify, evaluate, and cite credible research as sources within a speech.  Organize information in a way that is appropriate for the speech topic.  Demonstrate effective verbal and nonverbal delivery.  Explain the importance of listening.  Identify the ethical implications of public speaking.  Demonstrate the basic strategies and methods of	% meeting course objective 75.5% 66.1% 67.2% 72.0% 72.8% 81.0%		l ·	
# 1 2 3 4 5 6 7	teaching.  No actions proposed.  Course Objectives - COM 105 SP 09  Conduct audience analysis in order to effectively tailor a message. Identify, evaluate, and cite credible research as sources within a speech. Organize information in a way that is appropriate for the speech topic. Demonstrate effective verbal and nonverbal delivery.  Explain the importance of listening. Identify the ethical implications of public speaking.  Demonstrate the basic strategies and methods of persuasion.	% meeting course objective 75.5% 66.1% 67.2% 72.0% 72.8% 81.0%		l ·	

	Course Objectives - SPN 101 FA 08	% meeting course objective			
1	Demonstrate elements of pronunciation by correctly speaking Spanish.	88.8%			
2	Demonstrate a working vocabulary of practical terms and basic grammatical structures through reading, writing and speaking Spanish.	73.9%			
3	Read cultural reading selections appropriate to the elementary level and answer questions based on what they read.	90.4%			
4	Listen to spoken elementary level Spanish language and answer questions based on what they hear.	83.0%			
5	Write a short paragraph about themselves or someone else in the present tense.	70.2%			
6	Demonstrate the knowlegdge and understanding of the culture of the Spanish-speaking people.	85.1%			
	Action Plan SPN 101				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/lo
	No actions proposed.				

	Course Objectives - SPN 102 SP 09	% meeting course objective
1	Demonstrate elements of pronunciation by correctly speaking Spanish.	100.0%
2	Demonstrate a working vocabulary of practical terms and basic grammatical structures through reading, writing and speaking Spanish.	80.9%
3	Read cultural reading selections appropriate to the elementary level and answer questions based on what they read.	71.9%
4	Listen to spoken elementary level Spanish language and answer questions based on what they hear.	78.1%
5	Demonstrate the knowledge and understanding of the culture of Spanish-speaking people and the cultural differences that exist among Hispanic nations.	94.8%
6	Write a short paragraph about themselves or someone else in the past tense	87.1%
7	Engage in simple conversations. Research some aspects of the Hispanic culture using different sources in Spanish.	100.0%
	Action Plan SPN 102	
Obj #	Action proposed to improve student learning and/or teaching.  No actions proposed.	Target Date

### **ENGLISH (ENG)**

# Department and Course Level Assessment of Student Learning Results 2008-2009

### **ENGLISH**

#### **English Department Mission Statement**

The English department's mission is to help develop students' abilities to use the English language to read and listen critically, and write with clarity and persuasiveness, skills which will help them in their further academic and/or working careers.

	English Department Goals	All ENG Courses	All Dev Ed ENG Courses	ENG 040	ENG 050
1	Write logically-organized essays with clear thesis statements and specific supporting details relevant to the essays' purpose.	68.9%	65.2%	61.8%	66.5%
2	Analyze and evaluate their own and others' writing.	69.5%	not assessed	not assessed	not assessed
3	Evaluate source material for currency, accuracy, and appropriateness.	70.6%	71.3%	70.9%	71.6%
4	Incorporate source materials into their own writing using correct documentation techniques.	67.4%	77.5%	not assessed	77.5%
5	Employ correct diction, syntax, usage, grammar, and mechanics.	67.6%	not assessed	not assessed	not assessed

	English Department Goals (continued)	All ENG Courses	All College Level ENG Courses	ENG 101	ENG 102
1	Write logically-organized essays with clear thesis statements and specific supporting details relevant to the essays' purpose.	68.9%	70.0%	68.9%	74.4%
2	Analyze and evaluate their own and others' writing.	69.5%	69.5%	67.7%	74.4%
3	Evaluate source material for currency, accuracy, and appropriateness.	70.6%	69.9%	72.7%	67.0%
4	Incorporate source materials into their own writing using correct documentation techniques.	67.4%	66.4%	65.8%	67.0%
5	Employ correct diction, syntax, usage, grammar, and mechanics.	67.6%	67.6%	65.5%	74.1%

	Course Objectives - ENG 040 FA 08	% meeting course objective			
1	Identify parts of speech.	not assessed			
2	Identify and correct major grammatical and mechanical errors: fragments, run-ons, comma misuses, subject-verb disagreement.	63.5%			
3	Differentiate among various sentence structures: simple, compound, complex, and compound-complex.	21.4%			
4	Distinguish between general and specific information, fact and opinion.	75.0%			
5	Identify and describe patterns of organization and development in texts.	67.9%			
	Identify purpose, audience, main idea, and supporting evidence within a text.	67.9%	l		
7	Explain how audience and purpose affect and determine the content, format, language, and tone of writing.	82.1%			
8	Write focused topic sentences.	not assessed			
9	Write paragraphs that use appropriate, specific, and convincing evidence to develop a topic sentence or main idea.	not assessed			
10	Write unified and effectively organized paragraphs to achieve cohesiveness.	not assessed			
11	Use transitional and connective devices within paragraphs to achieve coherence and focus.	not assessed			
12	Implement basic multiparagraph composition structure: introduction, body, and conclusion.	not assessed			
	Action Plan ENG 040				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	ı	Resources needed	T .
	No actions proposed.				

	Course Objective - ENG 050 SP 09	% meeting course objective
1	Identify and correct major grammatical and mechanical errors: fragments, run-ons, comma misuses, subject-verb disagreement.	not assessed
2	Use a variety of sentence structures (simple, compound, complex, and compound-complex)	47.2%
3	Write thesis statements for a specific audience and purpose.	71.2%
4	Write supporting paragraphs that use appropriate, specific, and convincing evidence within a text to develop the thesis statement.	83.3%
5	Write unified and effectively organized supporting paragraphs within a text to achieve cohesiveness.	65.7%
6	Use transitional and connective devices within texts to achieve coherence and focus.	68.3%
7	Adapt the content, format, language, and tone of writing to meet the needs of a specific audience and purpose.	not assessed
8	Evaluated sources for credibility and relevance.	77.5%
9	Collect and organize evidence from a source to support a thesis.	not assessed
10	Differentiate among summarizing, paraphrasing, and quoting.	not assessed
11	Integrate evidence from sources into an original text.	not assessed
12	Describe and use the basic elements of documentation.	not assessed

	Action Plan ENG 050				
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low
#	teaching.		needed	requested	priority
	No actions proposed.				

	Course Objectives - ENG 101 FA 08	% meeting course objective	
1	Consider audience, purpose, and occasion in shaping writing and choosing tone.	76.2%	
2	Implement the processes of thinking, composing, revising, editing, and proofreading.	67.6%	
3	Generate ideas for writing and support those ideas with evidence.	69.5%	
4	Implement the processes of thinking, composing, revising, editing, and proofreading.	64.5%	
5	Demonstrate relationships between ideas by using transitions and connectives.	75.4%	
6	Employ correct diction, syntax, usage, grammar, and mechanics.	60.1%	
7	Use a variety of sentence structures.	61.0%	
8	Evaluate source materials for currency, quality, accuracy, and appropriateness.	72.7%	
9	Integrate source materials into writing using correct documentation techniques.	65.8%	
10	Analyze and evaluate their own and others' writing.	64.1%	
	Action Plan ENG 101		
Obj	Action proposed to improve student learning and/or	Target Date	Resources

# teaching.

No actions proposed.

High/low

priority

requested

needed

	Course Objectives - ENG 102 SP 09	% meeting course objective		
1	Demonstrate the steps in the writing process.	74.4%	]	
2	Demonstrate logical support in written work, using relevant evidence and reasoned argument.	76.3%		
3	Employ smooth transitions and connectives between ideas to illustrate their relationships.	72.6%		
4	Incorporate information from a variety of sources to support and sustain an argument/position, using correct mentation techniques.	67.0%		
5	Employ conventions of standard, edited English, including correct diction, syntax, usage, and grammar.	67.0%		
6	Analyze and evaluate their own and others' writing.	74.1%	1	
	Action Plan ENG 102			
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested

No actions proposed.

#### **FINE ARTS AND HUMANITIES**

### ART, MUS, THR, HUM, PHL

# Department and Course Level Assessment of Student Learning Results 2008-2009

#### Fine Arts

#### Fine Arts Department Mission Statement

The mission of the Arts and Humanities Department at Ozarks Technical Community College is to cultivate our students' knowledge of and experience in the creative disciplines known collectively as the Arts and Humanities (including the visual arts, music, literature, religion, philosophy, and foreign languages), in order that that knowledge and experience will contribute to their personal and professional well-being.

	Fine Arts Department Goals	All Fine Arts Courses	ART 101	ART 110	MUS 101	THR 101	
1	Use correct terminology in proper context.	62.1%	67.0%	61.9%	61.1%	85.6%	
2	Identify the important historical and contemporary figures and their contributions in Fine Arts.	67.8%	68.5%	66.3%	65.0%	82.4%	
3	Engage in and observe the creative process.	63.9%	62.1%	67.2%	61.1%	76.9%	
4	Acquire skills to develop a life-long relationship with the Arts and Humanities.	68.6%	68.5%	65.0%	62.9%	83.2%	
	Enter into the global landscape as responsible and informed cultural contributors.	72.6%	100.0%	66.3%	not assessed	83.2%	

	Course Objectives - ART 101 SP 09	% meeting course objective			
1	Describe the changing nature of art in the Western tradition.	70.2%			
2	Explain the role of art in history.	64.3%			
3	Summarize the influence of art on society, religion, and politics.	86.9%			
4	Identify the major periods, persons, styles and works that constitute the western artistic and cultural tradition.	47.3%			
5	Articulate personal experience of the creative artistic process through writings, projects and assignments.	100.0%			
6	Interpret the structure of works of art using a critical vocabulary.	75.0%			
	Action Plan ART 101				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

	Course Objectives - ART 110 FA 08	% meeting course objective			
1	Name the major periods, persons, styles and works that constitute the western artistic and cultural tradition.	61.7%			
2	Identify the social and cultural contexts of artistic developments and the interaction between art, culture and identity.	70.8%			
3	Summarize the aesthetic experience using critical vocabulary of the elements to discuss the structure of art.	61.0%			
4	Articulate personal experience of the creative artistic process through writings, projects and assignments.	100.0%			
	Action Plan ART 110				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/lov priority
	No actions proposed.				

	Course Objectives - MUS 101 FA 08	% meeting course objective			
1	Use appropriate terminology to discuss the structure of musical works in terms of the basic elements fo music.	51.4%			
2	Articulate aesthetic responses to music in terms of its basic elements.	60.9%	1		
3	Explain major periods, persons, forms, and compositions in the development of various cultures.	62.9%			
4	Distinguish a variety of musicians and styles from popular and world music.	80.3%			
5	Demonstrate verbally and in written form musical expressions that are embedded in Non-Western cultures and ways of living.	75.5%			
6	Experience the creative musical process through inclass exercises as well as attending live musical events.	not assessed			
	Action Plan MUS 101				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority

	Course Objectives - THR 101 SP 09	% meeting course objective			
1	Identify and characterize the major periods, persons, styles, and works that constitute the western theatrical and cultural tradition.	75.3%			
2	Explain the relationships between theatre, society, culture, history, art, and identity.	89.6%			
3	Use critical terminology of theatrical analysis to describe theatrical events and reflect upon one's response to them.	85.6%			
4	Evaluate the main aspects of theatrical production.	76.9%			
5	Apply core concepts of the theatre experience in observation of and participation in theatre's creative process.	not assessed			
	Action Plan THR 101				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

### Humanities

#### **Humanities Department Mission Statement**

The mission of the Arts and Humanities Department at Ozarks Technical Community College is to cultivate our students' knowledge of and experience in the creative disciplines known collectively as the Arts and Humanities (including the visual arts, music, literature, religion, philosophy, and foreign languages), in order that that knowledge and experience will contribute to their personal and professional well-being.

Total % of Students Meeting Department Goals Through Combined Course Results
Benchmark 70%

	Humanities Department Goals	All Humanities Courses	PHL 101	PHL 105	PHL 110
1	Use correct terminology to discuss (oral and written) works in the Humanities.	60.5%	62.5%	53.3%	not assessed
2	Present ideas in a logical fashion.	55.5%	62.5%	53.3%	49.3%
3	Compare and contrast historical and cultural world views.	51.8%	56.3%	49.2%	49.3%
4	Articulate the interconnectedness of people and places around the globe.	56.6%	59.6%	38.8%	not assessed

	Course Objectives - PHL 101 SP 09	% meeting course objective			
1	Identify major periods, people, ideas, and works that constitute the western philosophical and cultural tradition.	82.0%			
2	Define concepts and terms essential to philosophy, such as such as free will, determinism, mind, virtue, and justice.	60.7%			
3	Identify arguments by major philosophers (taken from primarily western philosophical traditions) as well as currently practicing philosophers, such as empiricism, rationalism, constructivism, idealism, existentialism, and social contract.	63.8%			
4	Distinguish the strengths and weaknesses of major arguments.	52.4%			
	Action Plan PHL 101				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	
	No actions proposed.				

	Course Objectives - PHL 105 SP 09	% meeting course objective			
1	Name major periods, people, ideas, and works in the western philosophical tradition.	68.8%			
2	Define concepts and terms essential to the field of ethics, such as normative, descriptive, duty, virtue, values, utility, justice, and the social contract.	47.5%			
3	Identify arguments by major philosophers (taken from primarily western philosophical traditions) as well as currently practicing philosophers, such as absolutism, relativism, existentialism, egoism, deontology, virtue ethics and utilitarianism.	61.3%			
4	Analyze how arguments question, explain or justify behavior.	40.6%	l		
5	Distinguish the strengths and weaknesses of major arguments.	31.3%			
	Action Plan PHL 105				
	Action proposed to improve student learning and/or teaching.	Target Date	П	Resources needed	,
	No actions proposed.		l		

	Course Objectives - PHL 110 FA 08	% meeting course objective			
1	Identify the major periods, persons, stories, events, and rituals that constitute diverse religious traditions.	45.2%			
2	Examine and discuss the structure of religious experience using critical terminology.	34.2%			
3	Compare and contrast the collective teachings of religious communities both historic and recent.	60.5%			
4	Assess the impact of ethical and social precepts on the complexities of social and political behavior.	67.1%			
	Action Plan PHL 110				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/ priorit

No actions proposed.

### **MATHEMATICS (MTH)**

# Department and Course Level Assessment of Student Learning Results 2008-2009

### **MATHEMATICS**

#### **Mathematics Department Mission Statement**

The mission of the Mathematics Department is to support students in learning those numerical skills and analytical abilities that will enable them to solve the problems that they will encounter in both their career responsibilities and future academic pursuits.

	Mathematics Department Goals	All MTH Courses	All Dev Ed MTH Courses	MTH 050		
1	Use correct terminology and conventional notation.	63.5%	60.6%	60.6%		
2	Perform mathematical operations in correct order.	62.2%	59.6%	59.6%		
3	Solve Equations.	61.9%	68.4%	68.4%		
4	Construct and interpret graphs.	51.5%	65.5%	65.5%		
5	Solve application problems at an appropriate level.	68.1%	74.1%	74.1%		

	Mathematics Department Goals (continued)	All MTH Courses	All College Level MTH Courses	MTH 110	MTH 130		
1	Use correct terminology and conventional notation.	63.5%	64.4%	54.1%	79.0%		
2	Perform mathematical operations in correct order.	62.2%	64.5%	61.3%	66.8%		
3	Solve Equations.	61.9%	53.3%	69.7%	30.1%		
4	Construct and interpret graphs.	51.5%	46.6%	61.9%	39.3%		
5	Solve application problems at an appropriate level.	68.1%	64.2%	57.4%	73.9%	·	

	Course Objectives - MTH 050 SP 09	% meeting course objective
1	Use correct terminology and conventional algebraic notation;	60.6%
2	Perform operations with integer exponents;	47.2%
3	Add, subtract, multiply, divide and factor polynomials;	72.1%
4	Solve linear and quadratic equations and linear inequalities;	61.5%
5	Solve systems of linear equations in two variables;	75.4%
6	Solve applied problems which can be translated as equations appropriate to this course;	74.1%
7	Graph linear equations.	65.5%

	Action Plan MTH 050				
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low
#	teaching.		needed	requested	priority
	No actions proposed.				

	Course Objectives - MTH 110 SP 09	% meeting course objective		
1	Use correct terminology and conventional algebraic notation.	45.3%		
2	Solve linear equations, quadratic equations, rational equations, absolute value equations, radical equations and absolute value inequalities;	69.7%		
3	Graph linear equations and quadratic equations and circles;	61.9%		
1	Algebraically manipulate rational and radical expressions;	61.3%		
5	Define and evaluate functions;	62.9%	1	
6	Solve applied problems which can be translated as equations appropriate to this course.	57.4%		
	Action Plan MTH110			
bj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amoun
	No actions proposed.			

	% meeting course objective	
1	Use corect terminology and conventional notation.	84.1%
2	Solve more advanced problems using intermediate algebra.	59.7%
3	Use function notation; perform operations involving functions and their graphs.	73.9%
4	Graph polynomial and rational functions.	47.0%
5	Graph exponential and logarithmic functions.	31.0%
6	Solve exponential and logarithmic equations.	30.1%
7	Recognize and graph equations of the conic sections.	40.0%
8	Solve applied problems appropriate to this course.	73.9%

	Action Plan MTH 130								
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low				
#	teaching.		needed	requested	priority				
	No actions proposed.								

### **PHYSICAL SCIENCES (CHM, PHY)**

## Department and Course Level Assessment of Student Learning Results 2008-2009

#### **Physical Science**

#### **Physical Sciences Department Mission Statement**

The mission of the Physical Science Department at Ozarks Technical Community College is to enable students to develop an understanding of the principles and laboratory procedures in the physical sciences. These courses foster the ability of the student to apply the methods of scientific inquiry. After completion of the required course sequence at OTC, students should have developed an understanding of physical matter and forces in our universe.

	Chemistry Department Goals	ALL CHM COURSES	CHM 101	CHM 111	CHM 112	СНМ 200
1	Use and describe how the scientific method is used in problem solving.	79.8%	80.1%	79.0%	not assessed	not assessed
2	Evaluate scientific evidence.	81.8%	81.7%	80.9%	85.3%	82.0%
3	Apply the atomic model to explain physical and chemical properties of matter and its changes.	80.2%	80.1%	84.2%	87.5%	75.9%
4	Describe the current theories on the origin of the elements.	84.2%	not assessed	84.2%	not assessed	not assessed

	Course Objectives - CHM 101 SP 09	% meeting course objectives
1	Use the Scientific Method to describe the synthesis of elements and their properties.	84.7%
2	Demonstrate a knowledge of chemical bonding in a system in terms of its electrical stability.	84.0%
3	Demonstrate an understanding of chemical nomenclature.	77.6%
4	Use mathematical appraches in problem solving of simple stoichiometric relationships.	77.2%
5	Apply and use mathematical models to solve gas law problems.	76.1%
6	Demonstrate an understanding of properties of solutions, acids, and bases.	81.4%
7	Demonstrate an understanding of basic organic nomenclature.	77.9%
8	Explain how the chemical structure affects the functions of carbohydrates, lipids, proteins and enzymes.	79.3%
9	Evaluate current scientific theories and conclusions for validity.	84.0%
10	Acquire, categorize, and organize data in graphical and/or outline form.	84.4%
11	Review, evaluate and analyze quantitative data.	81.7%
12	Assess validity of laboratory data.	79.0%
13	Analyze and defend a hypothesis through the application of the scientific method.	78.4%

Action Plan CHM 101								
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low			
#	teaching.		needed	requested	priority			
	No actions proposed.							

Demonstrate knowledge of atomic theory, periodicity, chemical structure, and chemical bonding.  Calculate stoichiometry problems. Propose the driving force of a reaction in aqueous solution and analyze its stoichiometric relationship.  Demonstrate an understanding of properties of solutions, liquids and solids as related to intermolecular and intramolecular chemical bonding.  Evaluate and calculate relationships among the variables of gases, i.e. volume, temperature, pressure and the amount of gas, through the use of various gas laws.  Acquire, categorize, and organize data in graphical and/or outline form.  Review, evaluate, and analyze quantitative data.  Assess validity of laboratory data through data manipulation and statistical analysis.  Analyze and evaluate a hypothesis through the application of the scientific method.  Action Plan CHM 111  Resources needed		Course Objectives - CHM 111 SP 09	% meeting course objectives	
3 Propose the driving force of a reaction in aqueous solution and analyze its stoichiometric relationship.  4 Demonstrate an understanding of properties of solutions, liquids and solids as related to intermolecular and intramolecular chemical bonding.  5 Evaluate and calculate relationships among the variables of gases, i.e. volume, temperature, pressure and the amount of gas, through the use of various gas laws.  6 Analyze and apply thermochemical concepts.  7 Evaluate current scientific theories and conclusions for validity.  8 Acquire, categorize, and organize data in graphical and/or outline form.  9 Review, evaluate, and analyze quantitative data.  79.5%  10 Assess validity of laboratory data through data manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  Action Plan CHM 111  Obj Action proposed to improve student learning and/or Target Date Resources	1		84.2%	
solution and analyze its stoichiometric relationship.  4 Demonstrate an understanding of properties of solutions, liquids and solids as related to intermolecular and intramolecular chemical bonding.  5 Evaluate and calculate relationships among the variables of gases, i.e. volume, temperature, pressure and the amount of gas, through the use of various gas laws.  6 Analyze and apply thermochemical concepts.  7 Evaluate current scientific theories and conclusions for validity.  8 Acquire, categorize, and organize data in graphical and/or outline form.  9 Review, evaluate, and analyze quantitative data.  79.5%  10 Assess validity of laboratory data through data manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  Action Plan CHM 111  Obj Action proposed to improve student learning and/or Target Date Resources	2	Calculate stoichiometry problems.	84.3%	1
solutions, liquids and solids as related to intermolecular and intramolecular chemical bonding.  5 Evaluate and calculate relationships among the variables of gases, i.e. volume, temperature, pressure and the amount of gas, through the use of various gas laws.  6 Analyze and apply thermochemical concepts.  7 Evaluate current scientific theories and conclusions for validity.  8 Acquire, categorize, and organize data in graphical and/or outline form.  9 Review, evaluate, and analyze quantitative data.  79.5%  10 Assess validity of laboratory data through data manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  Action Plan CHM 111  Obj Action proposed to improve student learning and/or Target Date Resources	3		70.6%	
variables of gases, i.e. volume, temperature, pressure and the amount of gas, through the use of various gas laws.  6 Analyze and apply thermochemical concepts.  7 Evaluate current scientific theories and conclusions for validity.  8 Acquire, categorize, and organize data in graphical and/or outline form.  9 Review, evaluate, and analyze quantitative data.  79.5%  10 Assess validity of laboratory data through data manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  Action Plan CHM 111  Obj Action proposed to improve student learning and/or Target Date Resources	4	solutions, liquids and solids as related to	80.9%	
7 Evaluate current scientific theories and conclusions for validity.  8 Acquire, categorize, and organize data in graphical and/or outline form.  9 Review, evaluate, and analyze quantitative data.  10 Assess validity of laboratory data through data manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  Action Plan CHM 111  Obj Action proposed to improve student learning and/or Target Date Resources	5	variables of gases, i.e. volume, temperature, pressure and the amount of gas, through the use of various gas	78.0%	
validity.  8 Acquire, categorize, and organize data in graphical and/or outline form.  9 Review, evaluate, and analyze quantitative data.  10 Assess validity of laboratory data through data manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  12 Action Plan CHM 111  13 Obj Action proposed to improve student learning and/or Target Date Resources	6	Analyze and apply thermochemical concepts.	76.6%	1
and/or outline form.  9 Review, evaluate, and analyze quantitative data.  10 Assess validity of laboratory data through data manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  12 Action Plan CHM 111  13 Obj Action proposed to improve student learning and/or Target Date Resources	7		86.4%	
Review, evaluate, and analyze quantitative data.  79.5%  10 Assess validity of laboratory data through data manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  Action Plan CHM 111  Obj Action proposed to improve student learning and/or Target Date Resources	8	, , , , , , , , , , , , , , , , , , , ,	90.7%	
manipulation and statistical analysis.  11 Analyze and evaluate a hypothesis through the application of the scientific method.  Action Plan CHM 111  Obj Action proposed to improve student learning and/or Target Date Resources	9	Review, evaluate, and analyze quantitative data.	79.5%	
application of the scientific method.  Action Plan CHM 111  Obj Action proposed to improve student learning and/or Target Date Resources	10	, , ,	85.1%	
Obj Action proposed to improve student learning and/or Target Date Resources	11	, , , , , , , , , , , , , , , , , , , ,	97.6%	
		Action Plan CHM 111		
	-		Target Date	

No actions proposed.

High/low

priority

	Course Objectives - CHM 112 SP 09	% meeting course objectives		
1	Calculate relationships between concentration of reactants, products and the equilibrium constant for a chemical system.	81.2%		
	Demonstrate a knowledge of acids, bases, buffers & titrations and perform calculations associated with it.	90.4%		
3	Use the solubility product constant to identify possible chemical reactions.	82.7%		
	Interpret data calculations to determine when reactions occur spontaneously.	80.8%		
5	Compare through calculations the relationship between E, $\Delta G$ , and K.	92.3%		
6	Demonstrate a knowledge of rates of reaction, activation energies, and its application to chemical systems and nuclear changes.	84.6%		
7	Deduce the identity of unknowns in the laboratory using qualitative analysis techniques.	96.4%		
	Use descriptive chemistry to show the use of chemicals in our everyday world.	96.2%		
	Action Plan CHM 112			
•	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested

No actions proposed.

	Course Objectives - CHM 200 SP 09	% meeting course objectives
1	Demonstrate an understanding of organic nomenclature.	81.0%
2	Classify the types of molecular structure and bonding, including stereochemistry.	73.0%
3	Identify major organic functional groups and their physical and chemical characteristics.	77.4%
4	Classify major organic reaction types.	81.0%
5	Apply simple organic mechanistic principles.	68.3%
6	Demonstrate an understanding of elementary biochemistry.	77.8%
7	Demonstrate familiarity with the concepts of chromatography, infrared, nuclear magnetic resonance, and mass spectroscopy.	83.3%
8	Demonstrate proper organic lab techniques and safety.	60.0%
9	Discuss melting and boiling characteristics of substances.	86.7%
10	Distinguish between functional groups according to test results.	81.0%
11	Use chromatograms and infrared spectra to distinguish between compounds.	82.5%
12	Calculate percent recovery and percent yield.	80.0%

Action Plan CHM 200								
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low			
#	teaching.		needed	requested	priority			
	No actions proposed.							

### Physics

	Physics Department Goals	All PHY Courses	PHY 100	PHY 105	PHY 110	PHY 140
1	Apply the atomic models of matter in the explanation of physical properties and the changes that substances	85.1%	85.8%	87.1%	87.6%	82.5%
2	Evaluate the processes involved in the formation of the earth and universe.	84.4%	84.4%	not assessed	84.4%	not assessed
3	Describe the motion of objects and analyze the effects of forces on the motion of objects.	80.9%	85.7%	44.6%	83.3%	83.1%
4	Describe simple harmonic motion and wave motion.	80.1%	not assessed	59.5%	81.7%	not assessed
5	State the basic conservation laws in physics and apply them in the analysis of physical changes or	85.6%	85.2%	86.5%	not assessed	83.1%

	Physics Department Goals	All PHY Courses	PHY 220	PHY 222	
1	Apply the atomic models of matter in the explanation of physical properties and the changes that substances undergo.	85.1%	44.4%	100.0%	
2	Evaluate the processes involved in the formation of the earth and universe.	84.4%	not assessed	not assessed	
3	Describe the motion of objects and analyze the effects of forces on the motion of objects.	80.9%	72.9%	not assessed	
4	Describe simple harmonic motion and wave motion.	80.1%	not assessed	not assessed	
5	State the basic conservation laws in physics and apply them in the analysis of physical changes or interactions.	85.6%	87.5%	87.5%	

		% meeting	ı								
	Course Objectives - PHY 100 FA 08	course									
	·	objective									
1	Explain how classical mechanics and gravitation govern										
	the motions of astronomical objects.	78.1%									
2	Determine properties of stars such as the temperature,										
	composition, mass and distance using optical	84.4%									
	techniques.										
3	State the rules that govern the structure and dynamics										
	of planets, and give descriptions of the planets in our	84.4%									
	solar system.										
4	State the rules that govern the structure and dynamics										
	of stars, and explain how they evolve.	87.5%									
_											
5	State the rules that govern the structure and dynamics	0.4.40/									
	of galaxies and explain how they are born and evolve.	84.4%									
6	Chata the atmost up and function of atomic muclean										
В	State the structure and function of atomic, nuclear, and fundamental particles.	78.1%									
7	Describe how classical mechanics differs from quantum										
/	mechanics and relativistic mechanics.	84.4%									
	mechanics and relativistic mechanics.	84.4%									
8	Explain current scientific theory as to how the planets,										
0	stars, and the universe began.	84.4%									
9	When given an astronomical problem, be able to										
9	mathematically solve it.	84.4%									
10	Assess how human choices about technology and										
10	energy affect the environment.	87.5%									
11											
11	Demonstrate ability to correctly use laboratory equipment to measure astronomical quantities such as										
	distance, time, mass, and temperature.	93.8%									
	distance, time, mass, and temperature.										
12	Down and the state of the state										
12	Demonstrate ability to correctly use laboratory										
	equipment to measure astronomical quantities such as	87.5%									
	stellar parallax, spectra, and energy flux.										
13	Demonstrate ability to make a prediction about an										
13	, · · · · ·										
	astronomical system, model it, collect data, organize the data, and interpret it.	87.5%									
	the data, and interpret it.										
	Action Plan PHY 100										
Obi	Action proposed to improve student learning and/or	Target Date		Resources	Resources \$ amount	Resources \$ amount Hig	Resources \$ amount High/lo	Resources \$ amount High/low			
#	teaching.		l	needed	needed requested	needed requested pri	needed requested priority	needed requested priority	needed requested priority	needed requested priority	needed requested priority
	No actions proposed.		İ								
			L		<u> </u>						

Course Objectives - PHY 105 SP 09 course objective	
1 Explain the motions of objects and the effects of forces and energy on those objects.  89.2%	d the effects of forces 89.2%
2 State the thermal and mechanical properties of solids, liquids and gases. 85.7%	properties of solids, 85.7%
3 Describe the properties of waves with special emphasis on sound and light. 59.5%	with special emphasis 59.5%
4 Explain what electricity, magnetism, electrical circuits, and electromagnetic induction are. 70.3%	70.3%
5 State the structure and function of the atom. 87.0%	of the atom. 87.0%
6 When given a physical problem, be able to 86.5% mathematically solve it.	e able to 86.5%
7 Assess how human choices about technology and energy affect the environment.	technology and 89.2%
8 Demonstrate their ability to use laboratory equipment to measure physical quantities such as distance, time, and force. 81.1%	, , , , , , , , , , , , , , , , , , ,
9 Demonstrate their ability to use laboratory equipment to measure physical quantities such as pressure, temperature, current and voltage. 70.3%	ch as pressure,
Demonstrate their ability to make a prediction about a physical system, model it, collect data about it, organize that data in the form of graphs and charts, and then interpret the validity of that data.	data about it, graphs and charts, 86.5%
Action Plan PHY 105	

No actions proposed.

High/low priority

	Course Objectives - PHY 110 SP 09	% meeting course objective
1	Distinguish the properties and characteristics of the compositional and mechanical layers of Earth.	86.7%
2	Explain the interactions that occur between the internal and external realms of Earth.	85.0%
3	Identify the features and processes involved in the formation of Earth's external surface.	76.4%
4	Identify proposed theories explaining the evolution of Earth.	89.4%
5	Explain the geologic processes involved during the formation of igneous, sedimentary, and metamorphic rocks.	85.6%
6	Differentiate between the early and late evidence discovered for the acceptance of the Plate Tectonic Paradigm.	83.3%
7	Describe the processes of plate tectonics and its effects on the Earth's surface.	88.0%
8	Assess the effects of human activities and population growth on the quality of life on Earth.	79.6%
9	Examine the effects of geologic events on the life of humans.	88.2%
10	Identify and classify common minerals and mineral properties.	91.1%
11	Identify and classify common igneous, sedimentary, and metamorphic rocks.	85.3%
12	evaluate laboratory data using graphs, charts, maps, diagrams, or mathematical processes to determine and critically explain results.	73.9%
13	Appraise geological proplems by using the scientific method.	81.6%

	Action Plan PHY 110								
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/low				
#	teaching.		needed	requested	priority				
	No actions proposed.								

	Course Objectives - PHY 140 FA 08	% meeting course objective		
1	Explain what causes mechanical, fluid, electrical, and themal systems to change.	85.7%		
2	Explain how work or heat affects mechanical, fluid, electrical, and themal systems.	85.7%		
3	Explain at what rate mechanical, fluid, electrical, and thermal systems change.	71.4%		
4	Explain how resistance slows down mechanical, fluid, electrical, and thermal systems.	85.7%		
5	Explain how mechanical, fluid, electrical, and thermal systems use energy.	71.4%		
6	Explain at what rate mechanical, fluid, electrical, and thermal systems use energy.	85.7%		
7	Describe simple machines which transform mechanical, fluid and electrical systems.	85.7%		
8	When given a physical problem identify what is given and what is to be found, represent the problem mathematically, and then solve it.	85.7%		
9	Demonstrate their ability to correctly use laboratory equipment to measure physical quantities such as distance, force, temperature, and pressure.	85.7%		
10	Demonstrate their ability to correctly use laboratory equipment to measure physical quantities such as current, voltage, and resistance.	85.7%		
11	Demonstrate their ability to model mechanical, fluid, thermal, and electrical, systems, collect data about them and interpret that data.	85.7%		
	Action Plan PHY 140			

	Course Objectives - PHY 220 SP 09	% meeting course objective		
1	Analyze the forces acting on individual objects that are a part of larger physical systems.	50.0%		
2	Analyze the forces present in a physical system that is in static equilibrium.	66.7%		
3	Analyze the translational and rotational motions of objects.	75.0%		
4	Use the concepts of energy and momentum to analyze interactions in physical systems.	75.0%		
5	Apply the understanding of gravitational fields to solve mechanics problems	83.3%		
6	Describe simple harmonic motion and wave motion.	100.0%		
7	Apply the properties of the mechanics of fluids.	25.0%		
8	Use the concepts of heat transfer and thermodynamics to explain energy exchange between objects in a thermal system and predict other physical effects of said energy exchange.	25.0%		
9	Describe how human choices about technology and energy affect the environment.	83.3%		
10	Demonstrate the ability to correctly measure physical quantities using devices such as rulers, stopwatches, balances, and thermometers.	100.0%		
11	Demonstrate the ability to analyze and interpret measured physical quantities such as distance, time, force, pressure and temperature.	91.7%		
12	Demonstrate the ability to compare predictions about a physical system to experimental observations.	100.0%		
13	Understand and apply the principles of modeling and abstraction to real physical situations.	not assessed		
	Action Plan PHY 220			1.
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested
	No actions proposed.			

		% meeting
	Course Objectives - PHY 222 SP 09	course
	course objectives 1111 222 or es	objective
1	Know the principles governing the behavior of charge	0.0,000.00
	in different materials under various physical	100.0%
	conditions.	
2	Apply the laws of Coulomb and Gauss to the	
	calculation of electric fields and electric potentials	75.0%
	about static distributions of charge.	
3	Calculate capacitance using electrostatic theory.	
	Understand the physical basis of resistance and Ohm's	75.0%
	law.	
4	Analyze basic DC electrical circuits.	75.0%
5	Understand that electric currents induce magnetic	
	fields and be able to calculate magnetic fields produced	75.0%
	by various current distributions.	73.0%
6	Understand the concept of circuit impedance and	100.0%
	utilize it to analyze basic AC circuits.	100.070
7	Interpret Maxwell's equations. Apply these equations	
	to the analysis of EM field problems.	75.0%
8	Apply Maxwell's equation to the free space	not assessed
	propagation of EM waves.	not assessed
9	Apply the principles of geometric optics to reflection,	
	refraction and the operation of lenses.	75.0%
10	Explain the physical optics concepts of interference,	75.0%
	refraction and diffraction.	75.070
11	Explain how human choices about technology and	100.0%
	energy affect the environment.	
12	Demonstrate the ability to correctly measure electrical	
	and magnetic quantities using devices such as	100.0%
	multimeters, oscilloscopes, photodetectors, and	
4.2	galvanometers.	
13	Demonstrate the ability to analyze and interpret	100.0%
	measured quantities such as current, voltage,	100.0%
1.1	resistance and radiation intensity.	
14	Demonstrate the ability to compare predictions about	100.0%
	a physical system to experimental observations.	100.0%
15	Understand and apply the principles of modeling and	
	abstraction to real physical situations.	75.0%
	Action Plan PHY 222	
Obj	Action proposed to improve student learning and/or	Target Date
#	teaching.	<b>3</b>

No actions proposed.

\$ amount

requested

High/low priority

### **SOCIAL SCIENCES (GRY, HST, PLS, ANT, SOC)**

### Department and Course Level Assessment of Student Learning Results 2008-2009

#### Social Sciences Department Mission Statement

The primary mission of the Social Science Department at Ozarks Technical Community College is to develop and increase the students' abilities to retain, analyze, and apply principles to higher academic learning and/or career situations. Successes in the Social Science Department hinges on the ability of the student to think, read, and write in a logical manner. After mastery of these abilities, it is crucial synthesize and apply learned principles by the use of critical thinking strategies.

#### History/Geography

	History/Geography Department Goals	All GRY/HST Courses	GRY 101	HST 120	HST 130
1	Read and interpret historical sources and provide the resources for students to independently locate and evaluate such sources.	67.7%	not assessed	73.0%	64.1%
2	Critically evaluate historical argument.	not assessed	not assessed	not assessed	not assessed
3	Apply knowledge and understanding of historical developments to recognize how past events shaped the present.	72.6%	not assessed	75.8%	69.6%
4	Acquire knowledge of the diversity of human experiences that have shaped the world and the United States.	63.8%	not assessed	not assessed	63.8%
5	Introduce students to the elements of geography of various regions of the world.	64.0%	64.0%	not assessed	not assessed
6	Demonstrate why and how geography plays an important role in the economic, political, and social development of the regions studied.	66.3%	66.3%	not assessed	not assessed
7	Demonstrate factual and conceptual knowledge of historic events and/or geographical concepts.	70.0%	70.0%	not assessed	not assessed

	Course Objectives - GRY 101 SP 09	% meeting course objective			
1	Describe the impact of globalization on cultures, development, identity, and attitudes of the people living in each region.	70.0%			
2	Discuss how people in the world are affected by, and respond to economic, social and political processes.	60.7%			
3	Demonstrate the ability to analyze maps and spatial thinking skills.	54.7%			
4	Classify and explain each region's environmental geography.	73.4%			
	Action Plan GRY 101				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

	Course Objectives - HST 120 FA 08	% meeting course objective
1	Explain the reasons for European colonization and the clash of cultures between the Native Americans and the early settlers.	81.2%
2	Trace the European colonization of North America.	65.3%
3	Compare and contrast the northern and southern colonies .	70.8%
4	Outline the causes of the Revolutionary War.	69.1%
5	Explain the major concepts of the Declaration of Independence, Articles of Confederation, and the Constitution and the problems the founding fathers faced.	63.1%
6	Describe the effects of the westward movement of the 19th century.	83.9%
7	Describe the impact of the industrial revolution and market economy on American society.	84.7%
8	Explain the rise and fall of the political parties before the Civil War.	78.5%
9	Explain the impact of slavery on American society from the colonial period until Reconstruction.	67.3%
10	Identify the causes of the American Civil War, major military campaigns, and the immediate results of the war.	65.8%
	Action Plan HST 120	

	Action Plan HST 120							
#	Action proposed to imporve student learning and/or	Target Date	Resources	\$ amount	High/low			
	teaching.		needed	requested	priority			
	No actions proposed.							

	Course Objectives - HST 130 SP 09	% meeting course objective			
1	Outline the phases of Reconstruction and the major changes to the constitutions of the United States and Missouri.	58.6%			
2	Analyze the impact of westward expansion to the Pacific.	59.0%			
3	Describe the effect of Big Business, organized labor and immigration on American society.	73.4%			
4	Explain the United States' involvement in international affairs from imperialism through World War I.	51.6%			
5	Compare and contrast the Populist and Progressive movements .	50.0%			
6	Explain the events leading to the Great Depression and the policies of the New Deal.	77.9%			
7	Trace the events leading up to World War II and the U.S. response.	61.7%			
8	Evaluate the reform movements from World War II to the present.	71.4%			
9	Assess the impact of conservatism on American society and politics since World War II.	65.3%			
10	Explain America's role in international affairs from 1945 to the present.	72.1%			
	Action Plan HST 130				
Obj	Action proposed to improve student learning and/or	Target Date	Resources	\$ amount	High/lo
#	teaching.  No actions proposed.		needed	requested	priority

### **Political Science**

### Total % of Students Meeting Department Goals Through Combined Course Results Benchmark 70%

	Political Science Department Goals	All PLS Courses	PLS 201	
1	Investigate the political science field of study, and its subfields, to include constitutional government, Missouri government, political institutions, public law, public piolicy, and international relations.	87.6%	87.6%	
2	Critically think to seek answers and solve problems related to government, current events, and the political processes.	87.6%	87.6%	
3	Analyze the value of citizen participation in all types of political systems.	88.0%	88.0%	
4	Demonstrate knowledge of various political ideologies and continue to develop a personal political philosophy.	86.7%	86.7%	

	Course Objectives - PLS 201 SP 09	% meeting course objective			
1	Identify the historical and contemporary issues of international relations.	86.7%			
2	Evaluate the political theories used by scholars to explain international issues.	86.7%			
3	Discuss a general set of analytical approaches that can be used to explain the nature of world politics.	90.0%			
4	Articulate the main events, places and people responsible for the development of theories of war.	86.7%			
5	Demonstrate competency in analysis and writing skills on issues of international relations.	86.7%			
	Action Plan PLS 201		ľ		
Obj #	Action proposed to improve student learning and/or teaching.	Target Date		Resources needed	
	No actions proposed.				

### Sociology and Anthropology

Socio	logy and Anthropology Department Goals	All SOC/ANT Courses	ANT 101	SOC 101
1	Provide information that allows students to develop an understanding of themselves and the world around them.	71.8%	71.8%	not assessed
2	Provide students with the scientific tools to disover and explain social influences on human behavior and social systems.	71.8%	71.8%	not assessed
3	Demonstrate the cultural and social complexities of a diverse world.	81.3%	70.9%	82.0%
4	Provide information on social institutions, structure and processes.	73.4%	81.7%	72.5%
5	Develop and communicate hypothetical explanations for human behavior.	79.5%	83.3%	79.5%
6	Demonstrate the interconnectedness of people and places around the globe.	78.2%	63.1%	78.4%

		% meeting			
	Course Objectives - ANT 101 FA 08	course objective			
1	Identify the basic terminology of Anthropology.	83.7%			
2	Apply the methods of Anthropology using history as context.	84.6%			
3	Describe the derivation of the human race and culture.	84.4%			
4	Differentiate the reasons for the diffusion of cultural differences.	80.6%			
5	Describe and analytically compare social, cultural and historical settings and processes other than one's own.	63.8%			
6	Develop and communicate hypothetical explanations for individual human behavior within the large-scale historical and social context.	97.5%			
7	Compare and contrast historical and cultural belief systems and ethical systems.	62.5%			
	Action Plan ANT 101				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/lov priority

No actions proposed.

# DIVISION LEVEL TECHNICAL EDUCATION ASSESSMENT OF STUDENT LEARNING RESULTS 2008-2009

# Total % of Students Meeting Division Outcomes by Program Benchmark 70%

	Technical Education Division Outcomes	All Division Courses	CIS Courses	EMP Courses	NET Courses	CST Courses	FST Courses	GDT Courses
1	Written Communication	80.3%	86.7%	88.8%	not assessed	74.2%	not assessed	not assessed
2	Oral Communication	84.5%	not assessed	88.8%	not assessed	74.2%	88.9%	not assessed
3	Critical Thinking	81.9%	86.7%	88.4%	not assessed	not assessed	88.9%	not assessed
	Managing Information: Collect and analyze information related to their field of study.	80.8%	not assessed	91.8%	not assessed	74.2%	not assessed	not assessed
5	Technical Skills: Demonstrate competency in entry-level skills related to their career field.	71.7%	86.7%	not assessed				
6	Employability Skills: Prepare students for employment in their career field.	72.1%	71.8%	not assessed	not assessed	74.2%	not assessed	not assessed

	Technical Education Division Outcomes	All Division Courses	HRA Courses	ECD Courses	CUL Courses	HSM Courses	DDT Courses	ICA Courses
1	Written Communication	80.3%	not assessed	45.9%	not assessed	not assessed	82.7%	69.8%
2	Oral Communication	84.5%	88.3%	not assessed	90.8%	not assessed	83.6%	83.6%
3	Critical Thinking	81.9%	88.3%	not assessed	91.0%	67.4%	not assessed	84.1%
4	Managing Information: Collect and analyze information related to their field of study.	80.8%	not assessed	77.1%	92.3%	not assessed	not assessed	83.8%
5	Technical Skills: Demonstrate competency in entry-level skills related to their career field.	71.7%	not assessed	42.9%	not assessed	not assessed	82.7%	not assessed
6	Employability Skills: Prepare students for employment in their career field.	72.1%	88.3%	72.6%	92.3%	67.4%	not assessed	not assessed

	Technical Education Division Outcomes	All Division Courses	MTT Courses	TLM Courses	WLD Courses	ABR Courses	AUM Courses	DSL Courses
1	Written Communication	80.3%	not assessed	not assessed	78.1%	not assessed	not assessed	not assessed
2	Oral Communication	84.5%	not assessed	75.8%	93.1%	not assessed	not assessed	86.4%
3	Critical Thinking	81.9%	not assessed	91.1%	87.3%	not assessed	not assessed	not assessed
	Managing Information: Collect and analyze information related to their field of study.	80.8%	not assessed	76.4%	not assessed	not assessed	not assessed	86.4%
	Technical Skills: Demonstrate competency in entry-level skills related to their career field.	71.7%	not assessed	not assessed	81.3%	not assessed	not assessed	not assessed
6	Employability Skills: Prepare students for employment in their career field.	72.1%	not assessed	75.6%	not assessed	not assessed	not assessed	not assessed

#### **COMPUTERS AND NETWORKS DEPARTMENT**

CIS, EMP, and NET

# Program and Course Level Assessment of Student Learning Results 2008-2009

#### **Computer Information Science Program**

#### **Computers and Networks Program Mission Statement**

The mission of the Computer Information Technology program at Ozarks Technical Community College is to provide students with the essential knowledge and skills to develop computer applications within the business environment of local industries using current programming languages, database programming, and other development tools necessary in today's workplace. This program uses as a guide the competencies outlined by the National Business Education Association, as well as various industry certification standards, such as those developed by Microsoft Corporation.

	Computers and Networks Program Goals	All CIS Courses	CIS 130		
1	Develop software solutions to common business problems using standard and technologically appropriate methods and practices.	86.7%	86.7%		
2	Meet entry-level employment demands of various industries in our community with the skills they have acquired.	not assessed	not assessed		
3	Use current software tools, packages, and suites to assist in the completion of typical business tasks.	86.7%	86.7%		
4	Independently research problems using online, traditional, and other available resources.	not assessed	not assessed		
5	Apply a variety of general business skills (including analytical, written, social, and communicative), in order to meet goals as an individual contributor or as a team member.	86.7%	86.7%		
6	Function as a responsible, corporate citizen, applying ethical behaviors and having an awareness of how privacy, piracy, and computer security issues impact business and society.	71.8%	71.8%		

	Course Objectives CIS 130 FA 08	% meeting course objective
1	Demonstrate proficiency in composing web pages using XHTML.	92.3%
2	Separate content from presentation utilizing cascading style sheets (CSS).	97.5%
3	Utilize various methods of developing, maintaining, and publishing web pages.	71.8%

	Action Plan CIS 130									
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low					
#			needed	requested	priority					
	No actions proposed.									

### **Electronic Media Production Program**

#### **Electronic Media Production Program Mission Statement**

The mission of the Electronic Media Production program at Ozarks Technical Community College is to provide students with the necessary knowledge and skills to produce and operate in a variety of media environments within the industry. This includes television, radio, advertising, cable and the internet. To provide the necessary entry level skills needed to gain employment in the media environment through direction of an advisory committee. This guidance will constantly be used to update program needs keeping student's skills current with tomorrow's technology.

# Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 70%

	Electronic Media Production Program Goals	All EMP Courses	EMP 115		
1	To prepare students for entry-level employment in radio, television and other communication venues in Southwest Missouri.	88.4%	88.4%		
2	Practice safety through the proper handling of electrical equipment.	88.4%	88.4%		
3	Identify the careers available in the media production/transmission field.	91.8%	91.8%		
4	Develop respect for rules, regulations, laws, competent work habits, and ethical conduct.	88.4%	88.4%		
5	Exhibit practical decision making, problem solving, and leadership skills.	91.8%	91.8%		
6	Be familiar with terminology, skills, equipment, and media for specific job performance.	91.8%	91.8%		
7	Be able to perform duties associated with media production.	88.4%	88.4%		
8	Have a strong foundation for further training in the field of media production.	88.4%	88.4%		

		% meeting			
	Course Objectives EMP 115 FA 08	course			
		objective	l		
1	Operate professional quality pedestal mounted cameras.	83.6%			
2	Mix live and pre-recorded audio to video tape.	72.6%			
3	Design and light basic studio sets.	94.5%			
4	Operate a professional video switcher.	95.9%	1		
5	Serve in essential crew positions.	91.8%	1		
6	Produce and direct short studio television sequences.	91.8%	1		
	Action Plan EMP 115				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

### **CONSTRUCTION DEPARTMENT**

CST, FST, GDT, HRA

# Program and Course Level Assessment of Student Learning Results 2008-2009

### **Construction Technology Program**

#### **Construction Technology Program Mission Statement**

The mission of the Construction Technology Program is to be a premiere program committed to excellence in teaching; empowering students to be knowledgeable, skilled, qualified, employable graduates, prepared for productive and meaningful careers in the construction industry.

	Construction Technology Program Goals	All CST Courses	CST 235		
1	Provide the best technical training possible in order to supply the Construction Industry with a well trained labor force that is desperately needed in this region. This technical training includes a strong emphasis on hands-on training.	74.2%	74.2%		
2	Maintain and upgrade labs, equipment and tools to reflect objectives and competencies of the program.	not assessed	not assessed		
3	Students will be profecient with the skills necessary to be employable in residential and commercial construction.	74.2%	74.2%		
4	Students will develop employability skills, work-readiness, safety, and attendance habits as required by employers and construction advisory committees.	74.2%	74.2%		
5	Students will be provided quality, ecconomical, accessible, and occupationally oriented courses as related to the college and technology division mission statement, goals and objectives.	not assessed	not assessed		
6	Students will be prepared for productive and meaningful careers within the rapidly changing commercial and residential construction industry.	74.2%	74.2%		

		% meeting					
	Course Objectives CST 235 SP 09	course					
		objective					
1	Setup and use tools of the trade safely and accurately.	100.0%					
2	Estimate material requirements.	52.5%					
3	Layout roof systems for stick built rafters and truss systems.	80.0%					
4	Calculate, cut and install rafter roof systems.	100.0%					
5	Layout and install truss systems.	92.5%					
6	Layout stair systems.	77.5%					
7	Calculate, cut and install stair systems.	60.0%					
	•						

	Action Plan CST 235				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

### **Fire Science Technology Program**

#### Fire Science Technology Program Mission Statement

The mission of the Fire Science Technology program is to educate, train and prepare students for employment, promotion and advancement in a firefighting career by providing opportunities to new and current firefighters thereby increasing their employment, promotional and advancement probability.

### Total % of Students Meeting Program Goals Through Combined Course Results Benchmark 70%

	Fire Science Technology Program Goals	All FST Courses	FST 120			
	To educate, train and prepare students for employment, promotion and advancement in a firefighting career.	88.9%	88.9%			
	Provide opportunities to new and current firefighters thereby increasing their employment, promotional and advancement probability.	88.9%	88.9%			

		% meeting			
	Course Objectives FST 120 FA 08	course			
		objective			
1	Identify various hazardous materials regulations.	83.3%			
2	Explain basic elements of chemistry.	86.7%			
3	Identify health hazards of hazardous materials.	91.7%	1		
4	Demonstrate the use of reference sources to recognize and identify hazardous materials.	91.7%			
5	List the factors affecting preplanning for hazardous materials incidents.	91.7%			
6	Develop a disaster management plan.	100.0%			
7	Identify and discuss causes of incidents in transportation and fixed storage facilities.	86.1%			
	Action Plan FST 120				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/lo priority
	No actions proposed.				

### Heating, Refrigeration, and A/C

#### Heating, Refrigeration and A/C Program Mission Statement

The Mission of the OTC Heating, Refrigeration, and Air Conditioning program is to provide quality, econoomical, accessible, and occupationally-oriented courses as related to the college and technology division mission statement, goals, and objectives. This program is designed to prepare students for entry level employment in the HVACR industry. Career opportunities could include: designing, selling, installing, servicing, and repairing commercial and residential HVACR equiqment.

	Heating, Refrigeration, and A/C Program Goals	All HRA Courses	HRA 102	HRA 135		
1	To provide high quality HVAC technical training.	88.3%	84.9%	90.9%		
2	To incorporate as much hands-on training into the program as possible.	88.3%	84.9%	90.9%		
3	To produce highly qualified individuals for the HVAC industry workforce.	88.3%	84.9%	90.9%		
	To constantly evaluate the needs of the community relative to the HVAC industry.	not assessed	not assessed	not assessed		
	Obtain advisement from former students, advisory committee members, and Employers regarding the program strengths and weaknesses.	not assessed	not assessed	not assessed		
	Evaluate the HVAC Program to ensure that lab equipment and the curriculum meet industry needs.	88.3%	84.9%	90.9%		

	Course Objectives HRA 102 FA 08	% meeting course objective			
1	Understand the refrigeration cycle.	85.2%			
2	Identify and explain the operation of the four basic components of a refrigeration system.	77.8%	1		
3	Perform tubing operations including flaring, swaging, and silver brazing.	91.2%			
4	Understand the processes of evacuating, charging, recovery, and leak testing a refrigeration system.	85.2%			
5	Perform basic mechanical troubleshooting and system evaluation.	77.8%			
	Action Plan HRA 102				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

	Course Objectives HRA 135 SP 09	% meeting course objective			
1	Demonstrate wiring and setting controls that are used in refrigeration/AC systems.	96.2%			
2	Describe the theory of electrical motors.	87.9%			
3	Demonstrate wiring of different electrical motors used in refrigeration/AC.	100.0%			
4	Describe the fundamentals of the electronic control boards that are used on AC systems.	80.0%			
5	Demonstrate the wiring of different circuits that are used in refrigeration, heating and air conditioning.	96.0%			
	Action Plan HRA 135				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

#### **EARLY CHILDHOOD DEPARTMENT**

**ECD** 

### Program and Course Level Assessment of Student Learning Results 2008-2009

### **Early Childhood Development**

#### **Early Childhood Development Program Mission Statement**

The mission of the Early Childhood Development program is to prepare graduates to enter into the field of early care and education at several levels and/or continue their education in a four year degree program. Graduates from the program will be prepared to manage their own in-home child care facility, become a director of an early childhood center, be a teacher in an early childhood classroom, be an assistant in the public school classroom, or continue their education in a four-year program. Several electives provide the students with opportunities to specialize in various areas of early care and education.

	Early Childhood Development Program Goals	All ECD Courses	ECD 120		
1	Explain current theories and research on how children acquire language and creative expression and develop physically, cognitively, and socially.	42.9%	42.9%		
2	Plan, implement, and evaluate learning environments and curriculum appropriate to the developmental needs of all children.	77.1%	77.1%		
3	Use systematic observations, documentation, and effective assessment strategies to understand what children know and can do.	45.9%	45.9%		
4	Identify strategies and resources for supporting and empowering families and communities through respectful, reciprocal relationships.	78.6%	78.6%		
5	Analyze learning environment regulations affecting children's health and safety and program quality.	not assessed	not assessed		
6	Demonstrate positive relationships and guidance strategies with children, individually and as part of a group.	68.8%	68.8%		
7	Design, examine, and evaluate an early care and education classroom.	not assessed	not assessed		
8	Articulate the use of ethical guidelines, advocacy, and other professional standards related to early childhood practice.	not assessed	not assessed		

	Course Objectives ECD 120 SP 09	% meeting course objective
1	Identify strategies that support anti-bias perspectives in language and literacy.	68.8%
2	Explain the developmental nature of early and emergent literacy and language acquisition in the young child.	50.3%
3	Compare and contrast historical and recent developments which are applicable to young children's language, literature, and literacy goals.	33.6%
4	Summarize the use of informal tools for evaluating children's language and literacy development.	45.9%
5	Describe effective strategies to involve families in supporting language and literacy.	74.4%
6	Compile teacher resources that support language, literature and literacy in early childhood.	81.9%
7	Plan, prepare and implement learning experiences that support the development of language and literacy in young children	83.8%

	Action Plan ECD 120							
1 1	Action proposed to improve student learning and/or teaching.	Target Date		1	High/low			
#			needed	requested	priority			
	No actions proposed.							

### **CULINARY AND HOSPITALITY DEPARTMENT**

**CUL, HSM** 

# Program and Course Level Assessment of Student Learning Results 2008-2009

#### **Culinary Arts Program**

#### **Culinary Arts Program Mission Statement**

The mission of the Culinary Arts program is to provide the best academic curriculum and learning environment possible for the comprehensive education of students in the culinary industry. Our program is accredited through the American Culinary Federation and is the foundation for the course content and competencies that provide the student with the knowledge and skills to be successful in the culinary industry. We are committed to ensuring learning experiences that will assist our students to achieve their greatest potential to adapt and adjust to a diverse and ever changing field. We strive to provide an atmosphere enriched with support, encouragement and assistance to foster a setting that promotes the pursuit of lifelong learning.

	Culinary Arts Program Goals	All CUL Courses	CUL 101			
1	Meet entry-level and/or supervisory/management demands in the culinary and hospitality industry by providing graduating students with a strong understanding of the acquired skills necessary to be a contributing member of organizations in our community as well as throughout a larger employment base.	not assessed	not assessed			
2	Student's knowledgeable in how the total operations of the business affect the profitability of business entities and the importance in striving to continually increase sales and control expenses through control of food cost, menu development and food cost, menu development and food production for business success.	92.3%	92.3%			
3	Understanding of industry accountability in areas of safety, security, sanitation, nutrition and in meeting the psychological and social needs of customers.	91.0%	91.0%			
4	Provide an employable workforce that is diverse and knowledgeable of current technology and its application and an understanding of contemporary workplace issues including environmental concerns, ethical behavior and workforce diversity which impact the industry	92.3%	92.3%			
5	Meet required skills for certification of students through the American Culinary Federation as a Certified Culinarian.	90.8%	90.8%			

	Course Objectives CUL 101 FA 08	% meeting course objective
1	Demonstrate an understanding of culinary history of various cuisines, and the individuals responsible for their development.	86.5%
2	Identify the skills required to succeed in the culinary field.	92.3%
3	Understand and demonstrate basic principles of food safety and nutrition.	97.8%
4	Understand the menu as it relates to the success of the restaurant; indentify the various types of menus and their appropriate uses.	96.2%
5	Calculate food, beverage and labor costs and demonstrate the process of yield calculations and conversions.	66.2%
6	Demonstrate how to read and follow a standard recipe and the procedure for writing and costing a standardized recipe.	92.3%
7	Identify and safely use utensils, pots and pans and demonstrate safe practices using stoves, mixers, ovens, etc.	92.3%
8	Demonstrate knife skills, hand tool and equipment operation, emphasizing proper safety techniques.	92.3%
9	Identify a variety of kitchen staples and demonstrate their uses.	92.3%
10	Identify and prepare basic stocks, soups and sauces	92.3%
11	Understand the basic principles of meat, poultry, game, fish and shellfish cookery.	93.8%
12	Understand the basic principles of breakfast cookery and egg cookery and prepare breakfast menu items.	96.2%
13	Identify a variety of vegetables, and demonstrate the proper preparation methods for vegetables.	89.3%
14	Identify and prepare various grains, pasta and potatoes.	90.8%
15	Identify various salad greens and fruits and ingredients and prepare a variety of salads, dressings and fruit items.	92.3%
16	Identify various types of sandwiches, their ingredients and use as well as be able to prepare basic hot and cold sandwiches.	92.3%
17	Identify a variety of dariy products and understand their uses.	92.3%

		Action Plan CUL 101				
0	bj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#	#			needed	requested	priority
		No actions proposed.				

### **Hospitality Management Program**

#### **Hospitality Management Program Mission Statement**

The mission of the Hospitality Management program is to provide the best academic curriculum and learning environment possible for the comprehensive education of students in the hospitality industry. We are committed to ensuring learning experiences that will assist our students to achieve their greatest potential to adapt and adjust to a diverse and ever changing field. We strive to provide an atmosphere enriched with support, encouragement and assistance to foster a setting that promotes the pursuit of lifelong learning.

	Hospitality Management Program Goals	All HSM Courses	HSM 270		
1	Meet entry-level supervisory or management employment demands in the hospitality industry by providing graduating students with a strong understanding of the acquired skills necessary to be a contributing member of organizations in our community, as well as throughout a larger metropolitan area.	67.4%	67.4%		
2	Student's knowledgeable in how the total operations of the business affect the profitability of business entities and the importance in striving to continually increase sales and control expenses for business success.	67.4%	67.4%		
3	Understanding of customer service and hospitality through accountability in areas of safety, security, sanitation, nutrition and in meeting the psychological and social needs of customers.	not assessed	not assessed		
4	Provide an employable workforce that is diverse in a variety of general business skills, knowledgeable of current technology and its application and understanding of contemporary workplace issues including environmental concerns, ethical behavior and workforce diversity which impact business and society.	67.4%	67.4%		

Course Objectives HSM 270 FA 08    Course Objectives HSM 270 FA 08   Course objective			
2 Identify basic management principles. 3 Explain the management functions of authority, responsibility, and accountability. 4 Distinguish strategic planning from operational planning activities. 3 0.8% 5 Outline the supervisor's role in decision-making, problem solving and delegation of duties 6 Describe the process of management through effective communication skills. 7 Describe barriers and biases that interfere with effective communication. 96.2% 8 Identify active listening skills and apply them in supervisory situations. 50.0% 9 Demonstrate understanding of nonverbal communication and how that understanding can be used on the job. 10 Explain the importance of effective business writing. 11 Explain the relationship between supervisors and human resources department. 12 Explain the role of job descriptions and specifications and develop written examples 13 Identify advantages and disadvantage to internal and external recruiting. 14 Outline the interviewing process of applicants. 15 Explain learning styles and how to apply those styles in the training process. 16 Describe procedures of new employee orientation and its effects on employees and the organization. 17 Compare training methods: construct and effective employee training program to include follow-up training and cross training. 18 Explain how productivity standards and staffing guides are developed.		Course Objectives HSM 270 FA 08	_
Explain the management functions of authority, responsibility, and accountability.  Explain the management functions of authority, responsibility, and accountability.  Distinguish strategic planning from operational planning activities.  Outline the supervisor's role in decision-making, problem solving and delegation of duties  Describe the process of management through effective communication skills.  Describe barriers and biases that interfere with effective communication.  Peccribe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective communication.  Describe barriers and biases that interfere with effective effective that the summaries of the planting and effective	1	Define management and describe different levels of management.	57.7%
accountability.  4 Distinguish strategic planning from operational planning activities.  5 Outline the supervisor's role in decision-making, problem solving and delegation of duties  6 Describe the process of management through effective communication skills.  7 Describe barriers and biases that interfere with effective communication.  96.2%  8 Identify active listening skills and apply them in supervisory situations.  9 Demonstrate understanding of nonverbal communication and how that understanding can be used on the job.  10 Explain the importance of effective business writing.  11 Explain the relationship between supervisors and human resources department.  12 Explain the role of job descriptions and specifications and develop written examples  13 Identify advantages and disadvantage to internal and external recruiting.  14 Outline the interviewing process of applicants.  15 Explain learning styles and how to apply those styles in the training process.  16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	2	Identify basic management principles.	61.5%
5 Outline the supervisor's role in decision-making, problem solving and delegation of duties  6 Describe the process of management through effective communication skills.  7 Describe barriers and biases that interfere with effective communication.  96.2%  8 Identify active listening skills and apply them in supervisory situations.  9 Demonstrate understanding of nonverbal communication and how that understanding can be used on the job.  10 Explain the importance of effective business writing.  11 Explain the relationship between supervisors and human resources department.  12 Explain the role of job descriptions and specifications and develop written examples  13 Identify advantages and disadvantage to internal and external recruiting.  14 Outline the interviewing process of applicants.  15 Explain learning styles and how to apply those styles in the training process.  16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	3		69.2%
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7 Describe barriers and biases that interfere with effective communication.  96.2%  8 Identify active listening skills and apply them in supervisory situations.  50.0%  9 Demonstrate understanding of nonverbal communication and how that understanding can be used on the job.  10 Explain the importance of effective business writing.  11 Explain the relationship between supervisors and human resources department.  12 Explain the role of job descriptions and specifications and develop written examples  13 Identify advantages and disadvantage to internal and external recruiting.  14 Outline the interviewing process of applicants.  15 Explain learning styles and how to apply those styles in the training process.  16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	5	3.1	not assessed
8 Identify active listening skills and apply them in supervisory situations.  9 Demonstrate understanding of nonverbal communication and how that understanding can be used on the job.  10 Explain the importance of effective business writing.  11 Explain the relationship between supervisors and human resources department.  12 Explain the role of job descriptions and specifications and develop written examples  13 Identify advantages and disadvantage to internal and external recruiting.  14 Outline the interviewing process of applicants.  15 Explain learning styles and how to apply those styles in the training process.  16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	6	Describe the process of management through effective communication skills.	38.5%
9 Demonstrate understanding of nonverbal communication and how that understanding can be used on the job. 10 Explain the importance of effective business writing. 11 Explain the relationship between supervisors and human resources department. 12 Explain the role of job descriptions and specifications and develop written examples 13 Identify advantages and disadvantage to internal and external recruiting. 14 Outline the interviewing process of applicants. 15 Explain learning styles and how to apply those styles in the training process. 16 Describe procedures of new employee orientation and its effects on employees and the organization. 17 Compare training methods: construct and effective employee training program to include follow-up training and cross training. 18 Explain how productivity standards and staffing guides are developed.	7	Describe barriers and biases that interfere with effective communication.	96.2%
understanding can be used on the job.  10 Explain the importance of effective business writing.  11 Explain the relationship between supervisors and human resources department.  12 Explain the role of job descriptions and specifications and develop written examples  13 Identify advantages and disadvantage to internal and external recruiting.  14 Outline the interviewing process of applicants.  15 Explain learning styles and how to apply those styles in the training process.  16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	8	Identify active listening skills and apply them in supervisory situations.	50.0%
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examples  13 Identify advantages and disadvantage to internal and external recruiting.  14 Outline the interviewing process of applicants.  15 Explain learning styles and how to apply those styles in the training process.  16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	11	· · · · · · · · · · · · · · · · · · ·	65.4%
14 Outline the interviewing process of applicants.  15 Explain learning styles and how to apply those styles in the training process.  16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	12		38.5%
15 Explain learning styles and how to apply those styles in the training process.  16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	13	Identify advantages and disadvantage to internal and external recruiting.	61.5%
16 Describe procedures of new employee orientation and its effects on employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	14	Outline the interviewing process of applicants.	71.8%
employees and the organization.  17 Compare training methods: construct and effective employee training program to include follow-up training and cross training.  18 Explain how productivity standards and staffing guides are developed.	15	Explain learning styles and how to apply those styles in the training process.	not assessed
program to include follow-up training and cross training.  73.1%  18. Explain how productivity standards and staffing guides are developed.	16	• • •	92.3%
18 Explain how productivity standards and staffing guides are developed. 71.2%	17		73.1%
	18	Explain how productivity standards and staffing guides are developed.	71.2%

19	Describe labor scheduling techniques and the use of forecasting, fixed and variable positions and staffing guides in developing schedules.	92.3%		
20	Analyze types and methods of employee evaluation.	67.3%		
21	List the principles of coaching, counseling and discipline.	56.4%		
22	Identify reasons for disciplinary probles and discuss the supervisor's role in handling them.	74.4%		
23	Describe the procedure for terminating employees.	96.2%		
24	Explain the effects of equal opportunity laws and the responsibilities of an organization in compliance with those laws.	69.2%		
25	Define the role of the supervisor in safety and security	66.7%		
26	Explain special supervisory concerns including ethics, multicultural work force, drug abuse, sexual harassment, discrimination, violence/anger and unemployment compensation.	84.6%		
27	Evaluate methods of conflict resolution and grievance procedures (union/non-union).	73.1%		
28	Identify types of work teams and explain how to build a team.	57.7%		
29	Summarize leadership styles and analyze when each is most appropriate.	61.5%		
30	Analyze motivational techniques/problems; discuss procedures for attitudinal changes.	61.5%		
31	Analyze ways of dealing with stress in the workplace.	not assessed		
32	Identify the conflict management styles and how to effectively handle conflicts that arise with in an organization.	56.0%		
33	Identify strategies of effective time management using daily to-do lists, weekly calendars and planning guides.	76.0%		
34	Describe necessity of change and ways of implementing change with the least employee ressistance.	65.8%		
35	Explain the importance of continual personal and professional development and how to execute a career development plan.	not assessed		
	Action Plan HSM 270			

High/low

priority

\$ amount

requested

Target Date

Resources

needed

Obj Action proposed to improve student learning and/or teaching.

No actions proposed.

#### INDUSTRIAL AND MANUFACTURING DEPARTMENT

DDT, ICA, MTT, TLM, WLD

# Program and Course Level Assessment of Student Learning Results 2008-2009

### **Drafting Design Technology Program**

#### **Drafting and Design Technology Program Mission Statement**

The mission of the Drafting and Design Technology program at Ozarks Technical Community College is to provide students with the most current and pertinent information and learning possible. The students of Drafting and Design Technology are given an experience with as many different types of software and exposed to as many types of drafting technology as is possible in a two-year program. The students in our program are given an exposure to modern techniques in drafting and design and are better prepared to take a position in any field they may choose.

	Drafting and Design Technology Program Goals	All DDT Courses	DDT 100	DDT 110	DDT 115	DDT 150	DDT 210	DDT 260
1	Students will form firm foundation in mechanical drafting and design.	82.6%	92.0%	80.0%	78.1%	80.0%	100.0%	not assessed
2	Students will display strong understanding of structural, civil, and architectural drafting.	84.9%	not assessed	not assessed	not assessed	79.8%	86.0%	84.0%
3	Students will apply geometric dimensioning and tolerancing standards.	84.9%	91.4%	87.2%	71.9%	63.9%	not assessed	not assessed
4	Students will display an understanding of manufacturing process and materials.	82.7%	87.0%	not assessed	81.8%	80.0%	88.9%	84.0%

	Course Objectives DDT 100 FA 10	% meeting course objective			
1	Describe the role that drafters play in a manufacturing environment.	97.0%			
2	Describe and use the tools and equipment used in current drafting and design environments.	97.9%			
3	Solve geometry problems using geometric constructin techniques.	82.5%			
4	Visualize 3D objects from orthographic drawings.	93.3%			
5	Produce orthographic views of objects using a 2D CAD system.	96.0%	1		
6	Apply demensions to orthographic drawing utilizing the current ASME Y14.5M drafting standards.	91.4%	1		
7	Produce section views of surfaces on orthographic drawings using a 2D CAD system.	80.0%			
	Action Plan DDT 100				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

		% meeting	
	Course Objectives DDT 110 FA 10	course	
		objective	
1	Students will identify and apply current ASME dimensioning standards	88.3%	
2	Students will identify and apply current ASME tolerancing standards	83.3%	
3	Students will apply dimensioning and tolerancing symbols.	76.7%	
4	Students will read and convert measurements using imperial and metric measuring systems.	75.6%	
5	Students will identify and apply the use of precision measuring and inspection instruments.	100.0%	
6	Students will apply dimensioning and tolerancing rules in the production of engineering drawings.	80.0%	
7	Students will demenstrate working knowledge of CAD system in the production of engineering drawings.	80.0%	
8	Students will identify Geometric Dimensioning and Tolerancing symbols.	96.7%	
	Action Plan DDT 110		
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resource needed

No actions proposed.

\$ amount

requested

High/low priority

		% meeting	
	Course Objectives DDT 115 FA 10	course	
		objective	
1	Define chemical properties of engineering materials.	77.2%	
2	Define mechanical properties of engineering materials.	94.7%	
3	Define and apply strength testing of engineering materials.	71.9%	
4	Applying heating techniques for ferrous and non-ferrous metals.	68.4%	
5	Define and identify traditional manufacturing processes.	89.5%	
6	Define and identify non-traditional manufacturing processes.	82.5%	
7	Identify terms and theories in autmated manufacturing.	86.0%	
8	Identify terms and theories in computer aided manufacturing.	84.2%	
	Action Plan DDT 115		
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources
#			needed

	Action Plan DDT 115				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

1	Course Objectives DDT 150 SP 11	% meeting course objective			
	Solve auxiliary view problems using a CAD system.	81.1%			
2	Solve revolution problems using a CAD system.	83.3%			
3	Solve intersection problems using a CAD system.	75.8%			
4	Develop and produce flat pattern layouts using a CAD system.	84.1%			
5	Produce complex drawings utilizing descriptive geometry on a CAD system.	63.9%			
	Action Plan DDT 150				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.			Ì	

	Course Objectives DDT 210 FA 08	% meeting course			
		objective			
1	Identify structural steel shapes and symbols.	82.5%			
2	Produce structural steel framing drawings.	76.7%			
3	Produce section drawings.	87.6%	1		
4	Identify and apply weld symbols.	85.7%			
5	Produce structural steel fabrication drawings.	92.1%	1		
6	Produce structural steel connection details.	89.5%			
7	Produce structural steel bills of materials.	74.6%			
8	Create scheducles using the integrated program software.	not assessed			
9	Use external referencing in drawings and X-ref Management.	not assessed	1		
10	Document management within the program. (window, door, and finishes).	not assessed	1		
11	Insert Raster Images and Bitmaps, Image management.	not assessed	1		
12	Customize toolbars and Menus.	100.0%			
13	Creat 3D models of Steel Structures.	95.2%			
14	Create 3D models of details and connections.	100.0%			
15	Setup of multiple viewports and scales with a drawing.	100.0%			
	Action Plan DDT 210				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	Hi
#			needed	requested	pr
	No actions proposed.				

	No actions proposed.				
#	rection proposed to improve student rearring and or teaching.	rarger bate	needed	requested	priorit
Obi	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/le
	Action Plan DDT 260				
6	Lay out parking and loading according to intended use.	86.7%			
5	Lay out lighting both interior and exterior.	80.0%			
4	Understand and lay out water detention.	76.7%			
3	Understand and lay out security considerations.	87.5%			
2	Lay out and develop a basic floor plan according to use or purpose.	88.0%			
1	Develop a basic site plan.	80.0%			
		objective			
	Course Objectives DDT 260 SP 09	course			
		% meeting			

### **Industrial Control and Automation Technology Program**

#### Industrial Control and Automation Technology Program Mission Statement

The mission of the Industrial Control and Automation Technology program is to prepare students for entry into a variety of industrial trades including electricity, mechanical power transmission, fluid power, plant maintenance, instrumentation systems, utilities service, and apprenticeship programs. The Industrial Control and Automation program strives to provide high quality, occupationally-oriented courses with an emphasis on job placement before or after graduation.

	Industrial Control and automation Technology Program Goals	All ICA Courses	ICA 125	ICA 190	ICA 225	ICA 260	
1	Obtain and perform an entry-level job in Industrial Maintenance	87.2%	not assessed	not assessed	73.5%	95.0%	
2	Practice all safety procedures when working on industrial equipment or in an industrial environment	80.5%	92.9%	68.7%	70.0%	86.7%	
3	Have a basic knowledge of electrical, hydraulic, pneumatic and mechanical theory and be able to apply that theory to real-world applications	80.8%	not assessed	77.6%	72.7%	95.0%	
4	Know and understand industrial terminology including schematic symbols, and be able to read and interpret industrial blueprints	83.1%	87.5%	80.4%	71.1%	95.0%	
5	Practice the proper use of test equipment when measuring industrial units such as voltage, current, resistance and rate of flow	89.1%	92.9%	not assessed	70.0%	91.7%	
6	Show a strong foundation of basic industrial maintenance knowledge and practices for further specialized training in the field of industrial maintenance technology.	83.8%	87.9%	80.4%	72.0%	95.8%	
7	Show skills in verbal and written communication within the industrial maintenance and automation field	69.8%	71.4%	not assessed	71.6%	62.5%	
8	Have practical decision-making, problem-solving, and leadership skills	87.4%	92.9%	not assessed	71.2%	95.8%	
9	Show respect for the rules, regulations, laws, competent work habits, and ethical conduct in the workplace	92.9%	92.9%	not assessed	not assessed	not assessed	

	Course Objectives ICA 125 FA 08	% meeting course objective
1	Explain and apply Pascal's Law and Archimede's Principles.	71.4%
2	Read and interpret diagrams of basic pneumatic and hydraulic circuits.	92.9%
3	Create diagrams of basic pneumatic and hydraulic circuits.	71.4%
4	Calculate the necessary size of an air receiver or hydraulic reservoir.	71.4%
5	Describe the operation of various pneumatic and hydraulic power sources.	92.9%
6	Test, troubleshoot, and perform preventive maintenance on air compressors, air preparation and conditioning components.	92.9%
7	Test, troubleshoot, and perform preventive maintenance on pumps, reservoirs, accumulators, and pressure relief systems.	92.9%
8	Test, troubleshoot, and perform preventive maintenance on control valves.	92.9%
9	Test, troubleshoot, and perform preventive maintenance on cylinders and motors.	92.9%
10	Test, troubleshoot, and perform preventive maintenance on electropneumatic systems.	92.9%
11	Test, troubleshoot, and perform preventive maintenance on electrohydraulic systems.	92.9%
12	Explain how an air over oil circuit works.	92.9%
13	Demonstrate safe work habits.	71.4%
14	Demonstrate proper use of an air-bound ultrasound sensing device and analysis of data.	92.9%

	Action Plan ICA 125				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
	No actions proposed.				

		% meeting
	Course Objectives ICA 190 SP 09	course
		objective
1	Define chemical properties of engineering materials.	100.0%
2	Define mechanical properties of engineering materials.	100.0%
3	Define and analyze methods to test strength of engineering materials.	100.0%
4	Describe heating techniques for ferrous and non-ferrous metals.	100.0%
5	Define and identify traditional manufacturing processes.	65.2%
6	Define and identify non-traditional manufacturing processes.	47.8%
7	Identify terms and theories in automated manufacturing.	65.2%
8	Identify terms and theories in computer aided manufacturing.	65.2%
	Action Plan ICA 190	

	Action Plan ICA 190				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

	Course Objectives ICA 225 SP 09	% meeting course objective
1	Define what a PLC is and list its advantages over relay systems.	75.0%
2	Identify the main parts of a PLC and explain their function.	75.0%
3	Outline the basic sequence of operation for a PLC.	70.0%
4	List and describe the function of the hardware components used in PLC systems.	75.0%
5	Define the decimal, binary, octal, and hexadecimal numbering systems and be able to convert from one numbering or coding system to another.	75.0%
6	Develop ladder diagrams using the Allen Bradley instruction set.	70.0%
7	Understand how ladder diagram language and Boolean language are used to communicate information to the PLC.	70.0%
8	Identify the functions of electromagnetic control relays and switches commonly foundin in PLCs.	70.0%
9	Develop programs using the timer, counter, move, and math instructions.	70.0%
10	Identify problems and employ troubleshooting techniques in PLC ladder logic and hardware.	70.0%
11	Discuss specifications, hardware, and PLC ladder diagrams to control various industrial automated equipment or processes.	75.0%

	Action Plan ICA 225				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

		% meeting
	Course Objectives ICA 260 SP 09	course
		objective
1	Read and interpret industrial blueprints.	83.3%
2	Assemble mechanical equipment.	100.0%
3	Install and wire electrical assemblies.	100.0%
4	Install and alighn mechanical assembly.	100.0%
5	Install, align and program automated work cell.	91.7%
6	Perform preventive maintenance on work cell.	100.0%
7	Troubleshoot industrial work cell.	83.3%
8	Demonstrate safe and professional workmanship.	41.7%

	Action Plan ICA 260							
Ob	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low			
#			needed	requested	priority			
	No actions proposed.							

## **Turf and Landscape Management Program**

### Turf and Landscape Management Program Mission Statement

The mission of the Turf and Landscape Management Program is to provide accessible, high-quality instruction that promotes student learning and prepares students to be knowledgeable, skilled, qualified, and employable graduates for professional careers in the rapidly changing land care industry.

	Turf and Landscape Management Program Goals	All TLM Courses	TLM 190	TLM 215		
1	Develop employability and work-readiness skills.	75.7%	74.4%	89.4%		
	Students will be efficient at entry-level skills for all areas of landscape management.	76.3%	72.5%	89.7%		
	Preparation of computer skills, technical communication, critical thinking and problem-solving abilities.	76.4%	72.6%	89.4%		
4	Knowledge of equipment operations and safety.	91.1%	85.7%	92.3%		
5	Understanding of the economical and environmental aspects of the industry.	75.6%	74.4%	90.1%		

	Course Objectives TLM 190 SP 09	% meeting course objective
1	Identify the different techniques to construct, renovate and provide maintenance of a turf area.	76.5%
2	Properly identify turf and the diseases or problems related to them.	72.6%
3	Define growth requirements, irrigation, and weed control.	72.5%
4	Establish a stand of turfgrass.	85.7%

	Action Plan TLM 190								
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low				
#			needed	requested	priority				
	No actions proposed.								

	Course Objectives TLM 215 FA 08	% meeting course objective
1	Perform various pruning procedures.	92.3%
2	List the steps in the landscape construction process.	76.9%
3	Demonstrate site preparation.	84.6%
4	Discuss grading, site drainage and erosion prevention.	84.6%
5	Construct various retaining walls.	92.3%
6	Demonstrate the ability to pave a given area.	92.3%
7	Construct freestanding walls.	100.0%
8	Understand site amenities.	92.3%

	Action Plan TLM 215				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

## **Welding Technology Program**

#### Welding Technology Program Mission Statement

The mission of the Welding Technology program at Ozarks Technical Community College is to provide students with the necessary skills and knowledge to obtain employment as a welder/fabricator in a manufacturing, structural, or architectural environment. The application of welding/fabricating standards and skills will be examined with the study of basic to advanced welding and metalworking projects. The program uses the American Welding Society and the aid of a technical advisory committee to develop course content and competencies that will provide students with the knowledge and skills necessary to be successful in the welding and fabrication industry.

	Welding Technology Program Goals	All WLD Courses	WLD 111	WLD 221	WLD 223		
1	Develop respect for rules, regulations, laws, competent work habits, and ethical conduct.	87.3%	not assessed	72.9%	91.1%		
2	Identify the careers available in the welding technology field.	81.3%	not assessed	81.3%	not assessed		
3	Posses good verbal and written communication skills.	78.1%	not assessed	78.1%	not assessed		
4	Have practical decision making, problem solving, and leadership skills.	not assessed	not assessed	not assessed	not assessed		
5	Be familiar with terminology, skills, techniques, and equipment present in industry.	92.6%	93.1%	not assessed	91.1%		
6	Produce complete projects using appropriate welding techniques.	93.1%	93.1%	not assessed	not assessed		
7	Possess strong math skills as related to the welding industry.	not assessed	not assessed	not assessed	not assessed		
8	Obtain and maintain employment as a welder/fabricator.	not assessed	not assessed	not assessed	not assessed		

		% meeting			
	Course Objectives WLD 111 FA 08	course			
		objective	l		
1	Demonstrate welding safety practices	93.8%			
2	Cut with oxy-fuel cutting process	92.2%			
3	Cut with the plasma cutting process	93.1%			
4	Cut with the carbon arc cutting process	93.1%			
5	Weld beads with the shielded metal arc welding process	93.1%			
	Action Plan WLD 111				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/low
#			needed	requested	priority
	No actions proposed.				

	Course Objectives WLD 221 SP 09	% meeting course objective			
1	Demonstrate a knowledge of welding safety practices.	72.9%			
2	Cut pipe and plate with oxy fuel cutting process.	76.6%			
3	Cut pipe and plate with plasma arc cutting process.	100.0%			
4	Weld stainless steel and carbon steel pipe and plate with shielded metal arc welding process.	78.1%			
	Action Plan WLD 221				
Obj #	Action proposed to improve student learning and/or teaching.	Target Date	Resources needed	\$ amount requested	High/low priority
	No actions proposed.				

	Course Objectives WLD 223 SP 09	% meeting course objective					
1	Demonstrate employability skills.	85.0%					
2	Fillet welds on carbon steel using self-shielded electrodes.	96.7%					
3	Weld groove and fillet welds on carbon steel using gas-shielded electrodes.	91.7%					
Action Plan WLD 223							
Obj #	Action proposed to improve student learning and/or teaching.		Resources needed	\$ amount requested	High/low priority		
	No actions proposed.						

### TRANSPORTATION DEPARTMENT

### ABR, AUM, DSL

## Program and Course Level Assessment of Student Learning Results 2008-2009

## **Diesel Technology Program**

### Diesel Technology Program Mission Statement

The mission of the Diesel Technology Program is to provide students with the necessary knowledge and skills to be successful in the careers within the diesel repair industry.

	Diesel Technology Program Goals	All DSL Courses	DSL 112	DSL 185		
1	Students will apply knowledge of industry resources to diagnose and repair vehicles.	86.4%	85.2%	90.0%		
2	Students will develop manipulative skills necessary to perform entry level vehicle repairs.	86.4%	85.2%	90.0%		
3	Students will be introduced to common and safe shop practices, including personal safety and the handleing of hazardus materials.	not assessed	not assessed	not assessed		
4	Students develop skills to become a responsible and ethical employee (employability skills).	not assessed	not assessed	not assessed		

course
objective
90.3%
97.1%
82.3%
87.1%
79.0%

	Action Plan DSL 112							
Obj #	Action proposed to improve student learning and/or teaching.	Target Date		,	High/low priority			
	No actions proposed.							

		% meeting			
	Course Objectives DSL 185 SP 09	course			
		objective			
1	Understanding heating and A.C. principals.	90.0%			
2	Recognize components of heating and A.C. systems.	92.5%			
3	Recognize and troubleshoot system controls.	90.0%			
4	Check and charge A.C. systems.	88.0%			
	Action Plan DSL 185				
Obj	Action proposed to improve student learning and/or teaching.	Target Date	Resources	\$ amount	High/lo
#			needed	requested	priority
	No actions proposed.				