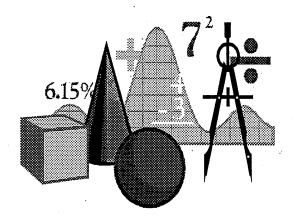


A joint meeting of two-year colleges in Oregon and Washington



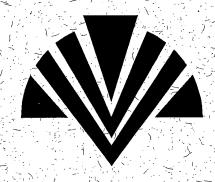
May 2 - 4, 1996

Skamania Lodge Stevenson, Washington

NorthWest '96 Program "Sharing Excellence"

Date	Time	Event
Thursday, May 2	5:30 pm - 7:30 pm 5:30 pm - 7:30 pm	Registration Publishers' Exhibits
·	7:30 pm - 8:45 pm	Opening Speaker Millie Johnson Western Washington University
	8:45 pm - 10:30 pm	Hosted Social
Friday, May 3	8:45 am - 11:15 am 8:45 am - 9:45 am 8:45 am - 9:45 am 9:45 am - 10:15 am 10:15 am - 11:15 am 10:15 am - 11:15 am	Publishers' Exhibits Session 1 Workshops A and B Beverage Break Workshops A and B Session II
	11:30 am - 1:30 pm	Lunch Keynote Speaker Dr. Dale A. Lear Robert McNeel & Associates
	1:30 pm - 4:30 pm 2:00 pm - 3:00 pm 2:00 pm - 4:30 pm 3:30 pm - 4:30 pm	Publishers' Exhibits Session III Workshops C and D Session IV
	4:45 pm - 5:30 pm 4:45 pm - 5:30 pm	ORMATYC meeting WAMATYC meeting
•	6:00 pm - 7:30 pm	Dinner
	8:00 pm - 11:00 pm	Tour of Columbia Gorge Interpretive Center & Hosted Social
Saturday, May 4	7:15 am - 8:45 am	Breakfast
	9:00 am - 11:30 am 9:00 am - 10:00 am 9:00 am - 11:30 am 10:30 am - 11:30 am 	Publishers' Exhibits Session V Workshops E and F Session VI Lunch Speaker Mike Sequeira Central Oregon Community College





Thursday 7:30 - 8:45 pm - Stevenson Ballroom A & B

Opening Speaker: Introduction: Millie Johnson
Gary Grimes
Nick Nickoloff

Western Washington University
Mt. Hood Community College
Spokane Falls Community College

Bathematics: The Geometry of Soap-Bubbles and Other Mathematics for the Bathtub

Using bubble models, we will consider some famous optimization problems that lie in the field of calculus of variations. We will take an intuitive look at Steiner's Problem (concerning the minimal linear linkage between points on a planar surface) and Plateau's Problem (concerning the minimal surface that connects a given contour in space). A soap film "solution" to Bernoulli's Brachistochrone problem will be included as well.



Thursday

8:45 - 10:30 pm

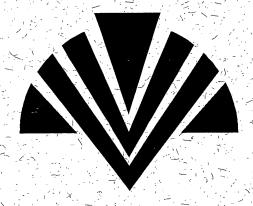
Hood River Suite (Room 421)



Hosted Social

This social is hosted by Gertrude Otzen,
Peter Atwood, and Keiran Moloney of
Houghton Mifflin / DC Heath Publishers

Relax with fellow conference attendees as you enjoy food and beverages.



F	riday	·) - y) - " j	100	8:45 - 11:15	am 🖫		Stevenson Ba	llroom C
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P	resenter:		م مرات الم	Alice K	aseberg			ommunity College	,.
P	resider: 🤳			Sharon	Coates		Portland	d Community Colle	ge 🛒 💛

Workshop: Algebra Tiles: An Area Model for Developmental Algebra

Reinforce the functions approach to developmental algebra by simultaneously presenting an area model for polynomial operations. Work in groups to explore the representation of polynomials with tiles, the zero principle, as well as addition, subtraction, and multiplication of polynomials. The model also applies to operations with positive and negative numbers, clarifies adding like terms, and provides a visual interpretation of factoring. The tiles can be a powerful tool in combination with the calculators that perform symbolic algebra.

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<i>'</i> .	Friday		_8:45 - 1	1:15 am	3-5-7	Stevenson Ballroom D
A 1 4 4 4	Presenter:		Gary Phillips		Clark Colle	ge
1.			Bruce Ransom Mark Turley		Clark Colle	
	Presider:		Penny Coffman			ills Community College

Workshop: COMPASS - A Computer Adaptive Placement and Diagnostic Test

COMPASS is used at Clark College to determine initial math placement. COMPASS also has diagnostic capabilities that provide developmental education faculty with a powerful tool to enhance remedial learning.



Friday	8:45 - 9:45 am Cascade Locks Ballroon	n A
Presenter:	Gina Shankland Mt. Hood Community College	< / `
	Sara Williams Mt. Hood Community College	
Presider:	Barb Harras Spokane Falls Community College	7

Real-World Activities & Applications in Integrated Beginning & Intermediate Mathematics Courses

A hands-on introduction to real-world applications and activities (based on consultation with business, industry, and other academic disciplines) will follow an interactive discussion of our philosophy and pedagogy concerning this collection of problems and activities. Participants will actively engage in solving a problem and will have an opportunity to peruse the current collection. This effort is supported by the NSF Grant Application-Based, Technology-Supported, One-Track Mathematics Curriculum.

	Friday 8:45 - 9:45 am	Cascade Locks Ballroom B
- ;		
	Presenter: Rob Cole	The Evergreen State College
١.	Presider: Jack Scrivener	Clackamas Community College

Modeling Environmental Applications

Interested in a new approach to incorporating interdisciplinary applications into a math course? Mathematical modeling of environmental issues may offer a robust opportunity. A course building mathematical models of dynamic environmental systems will be described. Applications ranging from pollution flows, population processes, chemical cycles, ecosystem dynamics, and their simulation with the Stella Modeling software will be demonstrated. This approach focuses upon the "dynamic relationships" (flows) between parts of the applications, rather than on symbolic equations, and may well represent a glimpse of one aspect of the mathematics of the twenty-first century.

4	Friday	8:45 -9:45 am	Cascade I	ocks Ballroom C
_	三型设置 医水管 原心性	的外海 出版 蒙特拉		
3,	Presenter:	Jacek Kostyrko	Kenai Peninsula	
- .,	Presider:	Rudy Gunawan	Spokane Falls Co	mmunity College

Mappings in Algebra, Precalculus, and Calculus: A Visualization and a Tool

Functions in the form of mappings of the real number set into itself can be introduced early. In an intermediate algebra course the concept of function could be discussed prior to solving linear equations. By using arrow graphs and geometric references one can develop a suggestive visualization of functions as mappings. This visualization can be then turned into a tool for solving certain classes of equations, either algebraically or numerically (by means of iterative attractors). Mappings can also be used in discussing the following topics in precalculus and calculus: inverse functions, composition of functions, the derivative (as the scaling ratio as opposed to the slope of the tangent), the antiderivative, the definite integral and its applications, and integration by substitution

Friday	8:45 - 9:45 am	Cascade Locks Ballroom D

Presenter: Presider: Larry Runyan Nick Nickoloff Shoreline Community College Spokane Falls Community College

After Linear Regression, Then What?

In precalculus we introduce the best fitting line and find the value of r. How do we explain these concepts without ealculus or statistics? Why don't calculators give r for quadratic, cubic, or quartic regression? What is r in a log-log or semilog coordinate system? Come and find out.

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Briday		Carlo Carlo San	8:45 - 9:45 a	m		TIUUU MIYEL DUME	(1/////////////////////////////////////

Facilitator:

Jim Brady

Spokane Falls Community College

Discussion Session: Liberal Arts Mathematics

Friday 9:45 - 10:15 am Galleria



Beverage Break

Take a break from meetings this morning and enjoy beverages provided by our exhibitors. Take time during the conference to visit the exhibits in the Conference Center Lobby.

Friday	10:15 - 11:15	am	Cascade	Locks Ballroom A

Presenter: Presider: John Reay Beverly-Vredevelt Western Washington University
Spokane Falls Community College

2-Distance Sets: What to Do on the Last Day of a Linear-Algebra Course

How many points can you draw in Eⁿ so that the distance between any two of them is one of two fixed real numbers? When you finish teaching linear algebra it is nice to end with one or two applications. This geometry problem reviews most of the basic concepts from a sophomore-level linear algebra course.

Friday	10:15 - 11:15 am	- Cascade Locks Ballroom B
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Presenters	Shoko Brandt	Essex Community College
	Edward Zeidman	Essex Community College
Presider:	Barb Harras	Spokane Falls Community College

Algebra Reform and Graphics Calculators

Calculus reform has led to a parallel reform movement in algebra and precalculus courses, with changes in emphasis. These include increased attention to data analysis, real-world decision making situations, topics in context, multiple representations of functions, and technology-based numerical methods. Aided by a graphics calculator and a Calculator-Based Laboratory (CBL), we will present examples of homework exercises from our reform algebra courses which highlight these recommended changes in emphasis.

Friday	10:15 - 11:	15 am	Cascade Locks	Ballroom C
			Maria maring 1 P	· · · · · · · · · · · · · · ·
Presenter:	David Goering		Eastern Washington Un	iversity
Presider:	Rudy Gunawan 🧼		Spokane Falls Commun	ity College
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Evolutes and Involutes

Every plane curve C has an associated curve called the evolute of C, and a family of associated curves called the involutes of C. I will explain what these curves are and give a brief history of them. This should be of interest to anyone who teaches calculus, as the study of these curves is a rich source of material for student calculus projects.

	7
Friday 10:15 - 11:15 am	Cascade Locks Ballroom D
日本在1000年上上的1900年100日 1000年100日	
-Presenter: Ron Larson	Pennsylvania State University
-Presider: Jim Brady	Spokane Falls Community College

Interactive Mathematics at Algebra and Precalculus Levels

This talk will demonstrate two types of CD-ROM mathematics programs that can be integrated into elementary, intermediate, and college algebra classes, and into precalculus classes. The first type is a CD-ROM project and the second is a CD-ROM interactive text. Sample CD's will be available to participants.

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Friday		10:15 - 11	:15 am	Hood R	liver Suite (R	oom 421)
	571172		1.10.15			
Facilitator:	Fra	nz Helfenstein		Central C	regon Communi	y College
		17.	March 1			

Discussion Session: Technical Mathematics

Luncheon

Keynote Speaker: Introduction: Dr. Dale A. Lear Gary Grimes Nick Nickoloff Robert McNeel & Associates
Mt. Hood Community College
Spokane Falls-Community College



Three-Dimensional Geometric Computer Models

Three-dimensional geometric computer models are used in the design, manufacturing, and entertainment industries. The software that creates, edits, and displays these models uses many kinds of mathematics in many different ways. The talk will give you an idea of how mathematics is used in three-dimensional geometric computer modeling and will provide you with examples that may help your students appreciate the need for mathematics.

Friday			2:00 - 4:	30 nm		Stevenson	Ballroom C
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Presente	rs:(🚁 👝 🗂	H	olli Adams 🦽		Port	tland Community Co	ollege 📜 🛴
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Presider	· · · -	'	idy Gunawan		Spo.	kane Falls Commun	ity College
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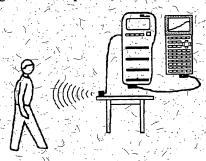
Workshop: Assessment and Student-Centered Learning In-service Training Developed through
Portland Community College Title III Mathematics Project

Participants will sample classroom student-centered learning techniques and practice a variety of student assessment and evaluation instruments.

Friday	2:00 - 4:30 pm	Stevenson Ballroom D
	James Dickinson	Clackamas Community College
Presider:	Paul Porch	Mt. Hood Community College

Workshop: - CBL: Labs for the College Classroom

This workshop will provide hands-on use of CBL. The presenter will provide participants with labs, disks, and additional information to take back to their home campus. This will be an opportunity to try out labs and to get the experience a student in a lab will receive. Texas Instruments will provide CBLs and TI-82 calculators to use during the workshop.



Friday	2:00 - 3:00 pm	Cascade Locks Ballroom A
Presenter:	Penny Deggelman	Lane Community College
Presider:	Jim Brady	Spokane Falls Community College

Portfolios - What Works for Me - Followed by Discussion of What Works for Others in the Audience

I have used portfolios in Math 70 and Math 95 (Algebra). My presentation will be on what works for me, and what responses I have obtained from students. I would also like to have a discussion involving members of the audience on what they have tried and what works for them.

Friday	2:00 - 3:00 pm	Cás	scade Locks Ballroom B
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Facilitator:	Kurt Lewandowski	Clackam	as Community College
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Di	scussion Session: Mathematic	s for Elementary Educa	$\mathbf{gon}_{i} = \mathbf{good}_{i} \times \mathbf{good}_{i} \times \mathbf{good}_{i}$

Friday	2:00 - 3:00 pm	Cascade Locks Ballroom C
The second second second		
Presenter: Be	n Cornelius	Oregon Institute of Technology
Presider: Ba	rb Harras	Spokane Falls Community College

Current Calculator Use in the Advanced Placement Calculus Program

The Advanced Placement Calculus Program run by the Educational Testing Service expects students to bring a calculator which they can use to a) graph a function, b) find the derivative of a function at a given point, c) evaluate a definite integral, and d) find the zeros of a function. We will discuss the types of questions they now use to test subject knowledge by using a calculator. There will also be a discussion of the types of problems made obsolete by calculators and problems being introduced to replace them.

NOTE: This session requires no previous familiarity with the Advanced Placement Program.

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Presenter:	Qing 2	Zhang	Clark College	
Presider.	Penny	Coffman	Spokane Falls	Community College

We will start from the winning strategy of tic-tac-toe and move to deeper questions of multiple recurrence theory, probability theory, and other areas of mathematics

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F	riday	学学院的第三	2:00 -	3:00 pm	Hood	l River Suite	(Room 421)
F	acilitator:		Gary Glaze	y and	Eastè	n Washington Ur	niversity
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Discussion Session: Beginning and Intermediate Algebra

Presenter: Jian Zou Highline Community College	le Locks Ballroom A	Friday 3:30 -4:30 pm Casea
		1 tobolitor,
Presider: Spokane Falls Community College	s Community College	Presider: Kathy Larson Spokane Fa

Genius and Stupidity - The Story of a Mathematician

One of the challenges we face is how to motivate students. This presentation provides some fascinating historical facts about algebra and the mathematicians behind them that will make students more interested in mathematics. We can solve a quadratic equation by using the quadratic formula. Can we solve polynomial equations of degree three, four, five, or higher by using similar formulas? This question will be answered in the presentation.

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; ·	Friday	11.22	- 25	3:30 - 4	:30 pm	F-17.	Cascade	Locks Ballroom	B
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;	Presider:	4743 -	Jim	i Brady			Spokane Falls (Community College	ı " ,
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Surviving in the Jungle with the TI-82

Suppose you are an explorer lost in the jungle. Which way should you walk to find your friends? Suppose you are a lion with a TI-82. Where should you lie in wait to catch an explorer? These questions can have some startling answers which may be emphasized nicely with the TI-82.





Friday	3:30-4:30 pm Cascade Locks Ballroom C
Presenters	Gail Nord Gonzaga University
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Presider:	Nick Nickoloff Spokane Falls Community College

Maps and Logarithmic Spirals

We will show the relationship between the making of maps and the logarithmic spiral. The properties of the logarithmic spiral will be discussed

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	Facilitator: Lane Community College	. ";-: :
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*	Discussion Session: Statistics	., .,

Friday

-3:30 - 4:30 pm

Hood River Suite (Room 421)

Facilitator:

Penny Coffman

Spokane Falls Community College

Discussion Session: College Algebra / Precalculus

Friday

4:45 - 5:30 pm

Cascade Locks Ballroom A & B

Regional Meetings

ORMATYC Meeting WAMATYC Meeting

Cascade Locks Ballroom A
Cascade Locks Ballroom B

Friday

6:00 - 7:30 pm

Stevenson Ballroom A & B

Dinner



Introductions by Gary Grimes

Nick Nickoloff

Mt Hood Community College | Spokane Falls Community College

Special Guests:

Sadie Bragg

AMATYC President-Elect
Borough of Manhattan Community College

City University of New York

Dick Clark

1998 AMATYC Conference Chairman

Portland Community College

Ilga Ross

AMATYC Northwest Regional VP

Portland Community College

Friday

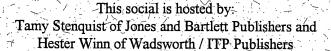
8:00 - 11:00 pm

Columbia Gorge Interpretive Center



Tour of the Columbia Gorge Interpretive Center and Hosted Social

Ticket Required or \$5.00 Admission to the Interpretive Center





Natural resources play a vital part in the economy and ecology of the Columbia River Gorge. The Columbia River Gorge Interpretive Center is devoted to providing the visitor with a close-up look of the history and future of this magnificent gorge.

Come enjoy an evening of camaraderie complete with delicious desserts, hors d'oeuvres, beverages, and a tour of the Interpretive Center.

Please note that the Interpretive Center has a policy that food must remain out of the exhibit areas.

Opening Session - Thursday, 7:30 - 8:45 pm Stevenson Ballroom A & B

Millie Johnson
Western Washington University

Session	Hood River Suite (Room 421)	Cascade Locks Ballroom A	- Cascade Locks Ballroom B
TL -	Liberal Arts Mathematics Discussion Group	Real-World Activities and Applications in Integrated Beginning and Intermediate Mathematics	Modeling Environmental Applications
Friday 8:45 - 9:45	Facilitator: Jim Brady Spokane Ealls CC	Gina Shankland Sara Williams Mt Hood CC	Rob Cole The Evergreen State College
11	Technical Mathematics Discussion Group	Linear Algebra 2-Distance Sets: What to Do' on the Last Day of a Linear Algebra Course	Algebra, Reform and Graphic Calculators
F <u>r</u> iday 10:15 - 11:15	Facilitator: Franz Helfenstein Central OR CC	John Reay Western WA Univ	Shoko Brant Edward Zeidman Essex CC Baltimore, MD
III	Beginning and Intermediate Algebra Discussion Group	Portfolios - What Works for Me Followed by Discussion of What Works for You	Mathematics for Elementary Education Discussion Group
Friday 2:00 - 3:00	Facilitator: Gary Glaze Eastern WA Univ	Penny Deggelman Lane CC	Facilitator: Kurt Lewandowski Clackamas CC
IV-	College Algebra Precalculus Discussion Group	Genius and Stupidity - The Story of a Mathematician Use of historical facts to	Surviving in the Jungle with the TI-82
Friday 3:30 - 4:30	Facilitator:\ Penny Coffman	motivate students Jian Zou	Joey McCoy Western WA Univ
V	Spokane Falls CC	Highline CC Presentations from the NSF Workshop on the Geometry of Multivariable Calculus	Ancient Siege Weapons A Hands-on-Activity
Saturday 9:00 - 10:00		Yves Nievergelt. Eastern WA Univ	Franz Helfenstein Central OR CC
VI		Calculus Discussion Group	Interactive Mathematics III at Mt Hood CC - A Reform Project at the Intermediate Algebra Level
Saturday 10:30 - 11:30		Facilitator: Scott Perry	Cathy Curtis / Renny Slingerland Alison Warr

Cascade Locks Ballroom C	Cascade Locks Ballroom D	Stevenson Ballroom C	Stevenson Ballroom D
Sascade Locks Balliooni C	Cascade Locks Balliooni D	Stevenson Balliooni C	Stevenson Balifoon D
Mappings in Algebra Precalculus and Calculus - A Visualization & a Tool	After Linear Regression, Then What?	WorkShop (A)/ \$4 Ticket Required	WorkShop (B) Ticket Required (No Fee)
Jacek Kostyrko Kenai Peninsula College Kenai, Alaska	Larry-Runyan Shoreline CC	Algebra Tiles: An Area Model for Developmental Algebra	COMPASS A Computer Adaptive Placement Test
Evolutes and Involutes: A Study of the Family of Curves Associated With Any Plane Curve	Interactive Mathematics at Algebra and Precalculus Levels	Explore an area model for polynomial operations:	This test is used to determine math placement and to enhance remedial learning
David Goering	Ron Larson	Alice Kaseberg	Gary Phillips Bruce Ransom Mark Turley
Eastern WA Univ Current Calculator Use in the Advanced Placement	Pennsylvania State Univ From Tic=Tac-Toe to Starting with the winning	WorkShop (C). \$4 Ticket Required	Clark College WorkShop (D) \$4 Ticket Required
Calculus Program	istrategy of tic-tac-toe to deeper questions of probability and statistics		
Ben Cornelius	Qing Zhang	Assessment and Student- Centered Learning	CBL: Labs for the College Classroom
OR Institute of Technology The Relationship Between the Making of Maps and Logarithmic Spirals	Clark College Statistics Discussion Group	In-service training developed through PCC Title III. Mathematics Project	Hands-on use of CBL. The presenter will provide labs and disks to use in the classroom
Gail Nord John Nord Gonzaga Univ	Eacilitator David-Shellabarger Lane CC	Holli Adams Pauline Siekas Portland CC	James Dickinson/ Clackamas CC
Medical Applications of Systems of Linear Equations	Using the TI-82 in Statistics	WorkShop (E) - \$4 Ticket Required	WorkShop (F) \$4 Ticket Required
David Jabon Eastern WA Univ	Randolph J. Taylor AMATYC West VP Las Positas College Livermore, CA	A Hands-on Workshop on the TI-92 in the Context of Statistics, Precalculus, Calculus, and Beyond	Setting the Stage Interactive presentation of Chemeketa's "reformed"
Title III Math Reform at Portland Community College	The Exponential Function and Doubling Time		college algebra course using a traditional text
Panel Discussion		A CALL	Bob Chesley Phyllis Leonard
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Saturday

7:45 - 8:45 am

Stevenson Ballroom A & B



Breakfast

Get your morning off to a good start by enjoying a full breakfast buffet.

Saturday	9:00 - 11:30	am 7	Stevenson Ballroom C
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Presenter: Presider:

Eric Schulz Barb Harras Walla Walla Community College Spokane Falls Community College

Workshop: A Hands-on Workshop on the TI-92 in the Context of Statistics, Precalculus, Calculus, and Beyond

The workshop will be a hands-on introduction to the new TI-92 calculator. Course-specific examples from precalculus, calculus, statistics, and linear algebra will be used to illustrate the new capabilities of the TI-92 including, but not limited to, the built-in symbolic algebra system, interactive geometry system, table editor, and the clipboard/editing features. Texas Instruments will be providing a calculator for each participant to use during the workshop.

Saturday	7.7.3.	9:00 - 11:30 am	Stevenso	n Ballroom D
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Presenters:	Bob Che	esley	Chemeketa Commun	·・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・
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	Marveer	n McCready	 Chemeketa Commun	
Presider:	Jacque A	Arellano	Clackamas Communi	ity College
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Workshop: Setting the Stage

The workshop will be an interactive presentation of Chemeketa Community College's "reformed" college algebra course, designed to support the "Rule of Four" with a traditional text. Team-designed student materials used in this workshop will be given to participants. "Reformed" refers to group classroom activities, graphing calculator requirement, and interactive classroom presentations using the modes of graphical, symbolic, tabular, and verbal representations of concepts.

Saturday	9:00 - 10:00	am ()	Cascade Locks Ballroom A
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Presenter:	Yves Nievergelt	East	ern Washington University
Presider:	- Jim Brady	Spok	ane Falls Community College_
	The Geometry of Mu	ltivariable Calculus	

On Thursday, May 2, 1996, I will conduct a workshop supported by NSF at the conference's location. The participants in that workshop will be encouraged and invited to present their material in this presentation session. The subject will be "The Geometry of Multivariable Calculus" and may include applications to industry that are suitable for calculus.

		<u> </u>
	Saturday 9:00 - 10:00 am Cascade Loc	cks Ballroom B
	Presenter: Central Oregon Con	7
	Presider Clackamas Commur	nity College
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Ancient Siege Weapons - A Hands-on Activity

Analyzing the ancient siege weapons makes for wonderful hands-on activities. In this session we will take a close look at the catapult. Our activity emphasizes communication skills, model building, data collection, physics, calculus, model verification and more.

			<u> </u>
Saturday	9:00 - 10:00 am	Cascade I	ocks Ballroom C
Presenter:	David Jabon	Eastern Washing	
Presider:	Nick Nickoloff	Spokane Falls Co	ommunity College

Medical Applications of Systems of Linear Equations

This talk describes an application of mathematics that can be used in a college algebra, precalculus, or finite mathematics course; the mathematics underlying CAT scans and similar medical imaging technology. Students will learn how CAT scans work and how imaging is reduced to the solution of linear equations. This topic allows teachers to bring a very significant application of mathematics to contemporary life to their classrooms.

	Saturday 9:00 - 10:00 am	Cascade Locks Ballroom D
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	Presenter: Randolph J. Taylor	Las Positas Collège
	Presider David Shellabarger	Lane Community College
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Using the TI-82 in Statistics

This presentation will provide instruction on how to use and integrate the TI-82 graphing calculator into an elementary statistics course. The speaker will demonstrate ways the calculator can promote student learning. Topics discussed will include means and standard deviations, the binomial distribution, the normal distribution, and linear regression. Attendees will receive usable techniques they can take back to the classroom. Bring a TI-82 calculator.

Č-4-1-	10:30 - 11:30 am Cascade Locks Ballroom A
Saturday	10:50 - 11:50 am Cascade Locks Dam John A
Facilitator:	Scott Perry Portland Community College
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	Discussion Session: Calculus
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Saturday	1 - 1 - 1		10:30 - 11	:30 am		Cascade Locks Ball	lroom B
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Presenters:		Cath	y Curtis	2 1 1 1 7	🏅 👌 🕻 Mt. 1	Hood Community Colleg	у е . γ
		Penn	y Slingerland		_Mt.]	Hood Community Colleg	je .
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Presider:		Chris	stine Eubank-		Cher	neketa Community Colle	ege
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Interactive Mathematics III at Mt. Hood Community College A Reform Project at the Intermediate Algebra Level

The Interactive Mathematics project at Mt. Hood Community College is part of a grant funded by the National Science Foundation. Participants will be actively involved using selected activities and problems from the Interactive Mathematics III text. An overview of the unique combination of features will be discussed. Please bring your graphing calculator.

Saturday	10:30 - 11:30 a	am Cascade Locks Ballroom C
Moderator:	Ilga Ross	Portland Community College
Presider:	Bill Covell	Mt. Hood Community College

Title III Math Reform at Portland Community College

Panel of Lead Development Team members will review philosophy, goals, content and procedures for implementing reformed mathematics for community college students.

Saturday			10:30 - 11:30	am	Caso	ade Locks l	Ballroom D
, *\\;\;\;\;\;\;\;\;\;\;\;\;\;\;\;\;\;\;\	Alto Alto	/	J. N. & 1994			1.2	1
Presenter:		Jill McI	Kenney-		Lane Com	munity College	
Presider:		Jim Bra	dy		Spokane F	alls Communit	y College
		メンド ごり			- ジャッ・フーブ	>)	- L

The Exponential Function and Doubling Time

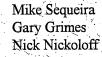
The video tape "Arithmetic, Population, and Energy" by Dr. Albert A. Bartlett, professor emeritus, Department of Physics, University of Colorado, Boulder, Colorado will be used as motivation for examining the effects of various growth rates on population and consumption. Class activities will be shared.

Skamania Lodge Check Out

Saturday Noon = 1:30 pm Stevenson Ballroom A & B

Luncheon

Speaker:
Introduction



Central Oregon Community College

Mt. Hood Community College

Spokane Falls Community College

Communicating Mathematics

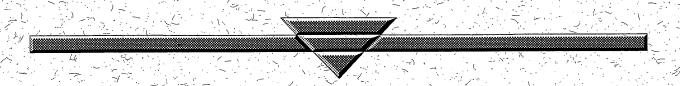
The dilemma of the mathematics teacher: I know you believe you understand what you think I said, but I am not sure you realize that what you think you heard is not exactly what I meant.

Closing Remarks:

Gary Grimes
Nick Nickoloff

Mt. Hood Community College Spokane Falls Community College

Announcement of job openings
Future conferences

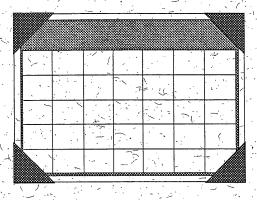


Thank you for attending the conference.

We hope you enjoyed it!

Have a safe drive home.





November 14-17, 1996: The annual AMATYC Conference will be held in Long Beach, CA at the ITT Sheraton Hotel. For information on this conference, write to AMATYC, State Technical Institute at Memphis, 5983 Macon Cove, Memphis, TN 38134.

April 24-26, 1997: The annual Washington State Community Colleges Mathematics Conference will be hosted by Green River Community College and will be held at Campbell's Resort in Chelan.

May 2-3, 1997: The annual ORMATYC Conference will be held at the Hotel Newport in Newport, Oregon.

November 2-8, 1998: ORMATYC will be the host of the annual AMATYC conference which will be held in Portland, Oregon. Dick Clark, Portland Community College, is the General Chairman of the conference. Many volunteers are needed to make the 1998 conference the best ever. If you have not already done so, let Dick know that you are willing to help.

1996 Exhibitors

Addison-Wesley

Peter Harris

Harper Collins

Houghton Mifflin / DC Heath

Irwin

Bruce Powell

John Wiley & Sons

Don Murphy

Jones and Bartlett

Tamy Stenquist

McGraw-Hill

Susanna Tyagi

Prentice Hall

David Warner

Quant Systems

Anita Glipsin

Saunders

Dan Sweet

Texas Instruments

Heather Fredin

Wadsworth / ITP

West Publishing

Conference Committee

Conference Co-Chairs

Gary Grimes
Nick Nickoloff

Mt. Hood CC Spokane Falls CC

Registration / Finance

Kialynn Glubrecht

Spokane Falls CC

Dorette Long

Rogue CC

Program Jim Brady

Kathy Taylor

Spokane Falls CC Clackamas CC

Promotion

Rudy Gunawan

Spokane Falls CC

Lily O'Rielly Portland CC

Facilities

Penny Coffman

Spokane Falls CC

Gary Grimes

Mt. Hood CC

Exhibitors

Frank Goulard

Portland CC

Program Booklet

Brenda Herman

Clackamas CC

Washington State Community Colleges Mathematics Conference

The first Washington State Community Colleges Mathematics Conference and Retreat was held in 1969. The organizers were Phil Heft, Jim Relf, Larry Larson, and John Van Duff. We are told that the per person cost at the time was \$16.68 and that 33 people attended the conference. It was held at "The Lodge" at Ashford where accommodations required "sleeping bags". The menu for the first banquet as well as the name of the first "guest speaker" remain unsolved mysteries.

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<u>Year</u>	Conference Host Schools	Location of Conference
1969	Green River Community College	The Lodge
1970	Spokane Falls Community College	The Lodge
1971	Everett Community College	Snoqualmie Pass
- 1972	Everett Community College	Snoqualmie Pass
1973	Seattle Central Community College	Snoqualmie Pass
- 1974	Shoreline Community College	Lake Wilderness
1975	Highline Community College	Providence Heights"
1976	Bellevue Community College	Snoqualmie Pass
1977	Shoreline Community College	Providence Heights
1978	Edmonds Community College	Providence Heights
1979	Olympic College	Port Ludlow
1980	Spokane Falls Community College	Sun Mountain —
[\] 1981	Spokane Falls Community College	Sun Mountain
1982	Highline Community College	Lake Chelan -
1983	Olympic College	Port-Ludlow
1984	Green River Community College	Alderbrook
1985	Shoreline Community College	Sun Mountain
1986	North Seattle Community College	Alderbrook
1987	Lower Columbia Community College	Alderbrook
1988	Olympic College	Port Ludlow
1989	Bellevue Community College	Lake Chelan
1990 -	Clark College	- Alderbrook
1991	Pierce College and Tacoma Community College	Lake Chelan
1992	Yakima Community College	Yakima
= 1993 [~]	Highline Community College	Wenatchee
× 1994 -	South Seattle Community College	Silverdale
1995	Skagit Valley and Whatcom Community Colleges	Wenatchee
1996	Spokane Falls Community College and ORMATYC	_, Skamania Lodge
1997	Green River Community College	Campbell's Resort in Chelan
	シキー・アース アイ・インバター トナップ・アンキャネー・・・バング アデオス ごな	

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Washington Mathematical Association of Two-Year Colleges

The Washington Mathematical Association of Two-Year Colleges (WAMATYC) was formed in Yakima in 1985-86. The past and current presidents are Barbara Poole (1986-88), Chuck Ainsley (1988-90), Phil Heft (1990-92), Mike Greenwood (1992-94), and Paul Casillas (1994-1996).

WAMATYC meetings are held during the Washington Community College Mathematics Conference in the spring of each year.

The organization recognizes the Washington college which places highest each year in the AMATYC Student Mathematics League Contest with \$50 for student awards. WAMATYC publishes a math directory which lists the faculty and the textbooks used at each community college in the state.

Oregon Mathematical Association of Two-Year Colleges

The Oregon Mathematical Association of Two-Year Colleges (ORMATYC) is a non-profit education association and an affiliate of the American Mathematical Association of Two-Year Colleges (AMATYC). Its purposes are to

- encourage the development of effective mathematics programs.
- afford a state forum for interchange of ideas.
- further develop and improve the mathematics education and the mathematics-related experience of students in two-year colleges.
- promote the professional welfare and development of its members.
- afford a forum for input at the state level concerning mathematics education.

The organization was unofficially formed in the fall of 1986 at the impetus of James Streeter of Clackamas Community College. The first conference was held at the Inn at Spanish Head in May, 1987. At the business meeting there, the constitution was presented, revised, and adopted. Arrangements were made for the nomination and election of officers and thus ORMATYC was official. Since then ORMATYC has sponsored 8 more spring conferences. The fall of 1991 saw the first newsletter for the organization published by Mike Sequeira of Central Oregon Community College. The newsletter is currently published three times a year. This year ORMATYC joins the two-year colleges in the state of Washington to sponsor a joint conference at Skamania Lodge in Stevenson, Washington.

ORMATYC Presidents

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James Streeter 1987-1988 Dick Holliday	1992-1993
Roger Judd 1988-1989 Gary Grimes	1993-1994
Mary Ellen White 1989-1990 Wally Waldman	1994-1995
Dorothy Beaufait 1990-1991	1995-1996
Dick Clark 1991-1992 Don Hutchison	1996-

ORMATYC Executive Board

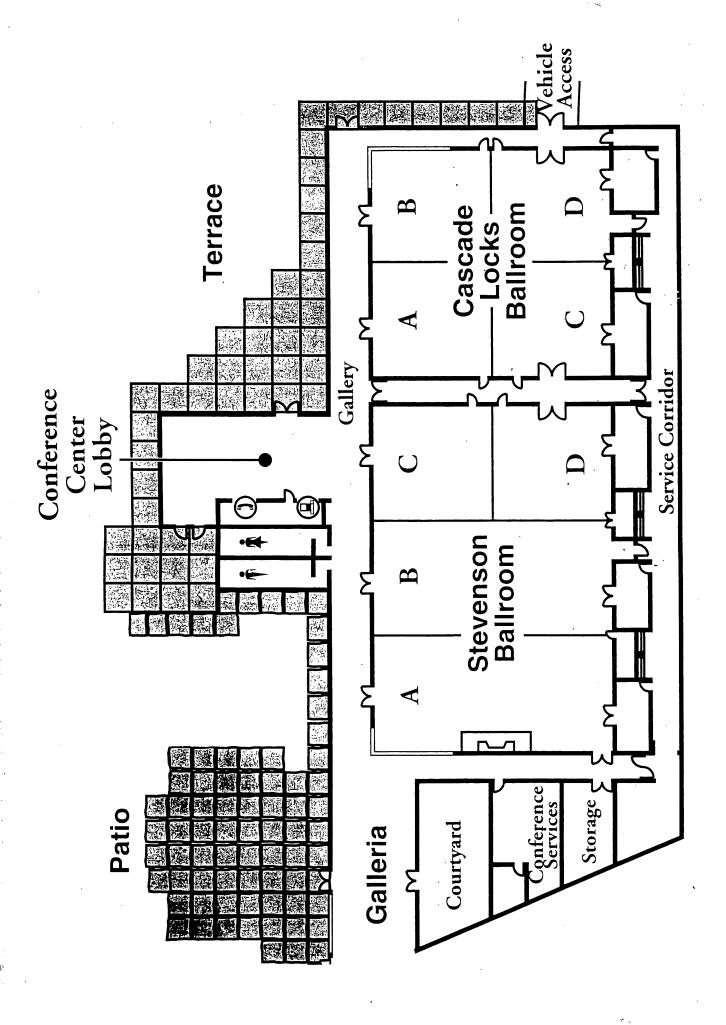
Past-President	Wally Waldman Blue Mt CC
President	Tom Reimer Lane CC
President-Elect	Don Hutchison Clackamas CC
Secretary	Alice Hayden Clackamas CC
Treasurer	Dorette Long Rogue CC

ORMATYC Special Assignments

Historian	Alice Hayden	Clackamas CC
Newsletter Edito	r Mike Sequeira	Central OR CC
Photographer-	Jim Rogers	Portland CC



NOTES



Bates Technical College	Edmonds
Sullivan, Emily	Chalif, David
Bellevue	Francis, Jim
Crain, Charlotte	Gup, Jeremy
Curnutt, Larry	Mackay, Melissa
Habib, Berthe	Maly, Barbara
Hoffman, Dale	Weyant, Jadwiga
Laveglia, Jennifer	Everett
Malinsky, Sasha	Jones, Chuck
Pugh, Rose	Weiss-Green, Heidi
Rucker, John	Gonzaga University
Clark	Nord, Gail
Barker, Kristine	Grays Harbor
Bingham, Aaron	Dutro, Trish
Casillas, Paul	Hyatt, Gwen
Elliott, Mark	Parker, Gary
Greenwood, Mike	Siedenstrang, Lynn
Hoover, Dale (guest)	Green River
Hoover, Louise	Alford, Keith
Jackson, Adam	Glover, Sally
Monroe, Bill	Guilliland, Christie
Nehnevaj, Tracy	Hammer, Joyce
Orser, Wes	Kinholt, Stephan
Ransom, Bruce	Larson, Larry `
Reifenrath, Tom	Moore-Mueller, Laura
Watsom, Dennis	Highline
Yates, Kayoko	Hunter, Barbara
Zhang, Qing	Lyman, Heidi
Columbia Basin	Morris, Ed
Brands, Michael	Wilcox, Joe
Meier, Paul	Zou, Jian
Olson, Gary	Highline, Pierce
Eastern Washington University	Ginsberg, Benjamin
Cripe, Greg	Lake Washington Technical College
Glaze, Gary	Buck, Sharon
Goering, David	Kuestner, Sue
Nievergelt, Yves	Ovitt, Martie
Peterson, Sonja (guest)	Lockheed Martin Sunnyvale, CA
Wellman, Susan	Horn, Walter

South Seattle

Vittum-Jones, Marjie

Spokane

Hammond, Mary Lou

Johnson, Chris

Dimick, Susan

Spokane Falls

Brady, James

Brady, Patricia (guest)

Coffman, Penny

Duvernay, Nicole

Glubrecht, Kialynn

Gunawan, LuAnne (guest)

Gunawan, Rudy

Hallam, Jim

Harras, Barbara

Humphrey, Bette (guest)

Humphrey, Curt

Larson, Kathy

McGregor, Robert

Neises, Lars

Nickoloff, Nick

Vredevelt, Beverly

Winkler, Ann

Tacoma

Clark, Karen

Flodin, Mike

Gage, Rhoda

Hafer, Anne

Price, Barb

Tran, Trung

University of Alaska Southeast Ketchikan, AK

Siemon, Nancy

University of Colorado

Munro, Matt

University of Washington

Burton, Cindy graduate student

Collingwood, David

Harris, Julie graduate student

Martin, Linda graduate student

Morehead, Paul graduate student

Smith, Brent graduate student

Warfield, Ginger

Walla Walla

Huntington, Joyce

Owsley, Gary

Schulz, Eric

Wenatchee Valley

Booth, Garrick

Gardner, Anne

Pierce Lower Columbia Downie, Diane Flakus, Carol Lamka, Christine Flakus, Greg (guest) Lamka, Michael McGlothin, James O'Donovan, Barbara Vest, Lenore Robert McNeel and Associates Seattle, WA North Idaho College Lear, Dale (keynote seaker) Adams, Judy Saint George Acadamy Spokane, WA Stowe, Edwina Bowen, Jori North Island College Courtenay, BC Seattle Central Simice, Slava Benson, Dick North Seattle LaCoste, John Brannan, Denise Morales, Lawrence Dyer, Barbara Ray, Janet Hamilton, Earl Wilkinson, Margaret Hayasaka, Machiko Seattle University Himes, Dave Ehlers, Mary Lippert, Pam Mills, Janet Ringen, Vicky Yandl, André Tighe, Robert Shoreline Olympic Hancock, Helen Brackebusch, Ann Hawkins, Betty Brougher, Janet Runyan, Larry Dodge, Mike Sanderman, Judy Haines, Martin Weaver, Matthew James, Glenlee (guest) Maki, Loe Skag Bell, Traci Marler, Larry Frost, Marina Mauney, Allen Green, Phil Niven, Scott Huffman, Richard Sicks, Dave Schaffner, Joventina Zaerpoor, Farzaneh Stevens, Chuck Peninsula South Puget Sound Brauninger, Kent Ganns, Richard Brauninger, Rosemary (guest) Robb, Eunice Lindberg, Marjorie Ryan, Sylvia Norris, Susan

> Schaps, Kayana Villasana, Cesar

College					
	Name of	E-Mall Address			
Bellevue Charlotte Crain	Crain		Olympic	Allen Mauney	allenjm446@aol.com
	man	c.edu		Ferzaneh Zaerpoor	Farzaneh Zaerpoor fszaerpo@olympic.ctc.edu
Jennifer Laveglia	aveglia	jlavegli@bcc.ctc.edu		Janet Brougher	jibrough@olympic.ctc.edu
Larry Curnutt	nutt	curnuttl@bcc.ctc.edu		Mike Dodge	mldodge@olympic.ctc.edu
Rose L. Pugh	ugh		Pierce	Barbara O'Donovan	Barbara O'Donovan bodonova@ctc.ctc.edu
Clark Aaron Bingham	ıgham	Ė.		Diane Downie	ddownie@ctc.ctc.edu
7	nsom	brans@clark.edu	Seattle Central	Dick Benson	rbenso@seacc.sccd.ctc.edu
Dennis Watson	etson	watson@clark.edu		1	iray@guest.nwnet.net
Kayoko Yates	ates	kyetes@clark.edu		Lawrence Morales	Imoral@seaccc.sccd.ctc.edu
Kristine Barker	Barker	barkkt@clark.edu	Seattle University	Andre' Yandi	alyandi@seattleu.edu
Louise Hoover	oover			Carl Swenson	swenson@seattleu.edu
Mike Greenwood	enwood	greeme@clark.edu		Janet Mills	jemills@seatleu.edu
Paul Casilles	illes	casipa@clark.edu		Mary Ehlers	negkers@seattleu.edu
Qing Zhang	ā	qzhang@clark.edu		Wynne Guy	wguy@seatleu.edu
Tracy Nehneva	hnevaj	tracy@clark.edu	Shoreline	Betty Hawkins	bhawkins@ctc.ctc.edu
Wes Orser	er	orsewj@clark.edu		Helen Hancock	hhancock@ctc.edu
	enrath	tomr@clark.edu		July Sandernan	http://www.@ctc.edu/frunyan
Columbia Basin Paul Meler	erina	droering@ewil edil		Matthew Weaver	mweaver@ctc.edu
Eastern yeastington Chivensity David Goering David Goering	ering S	dgoering@ewu.edu	Skagit Valley	Chuck Stevens	stevensc@skagit.ctc.edu
Gary Glaze	Ze	gglaze@ewu.edu		Marina Frost	mfrost@ctc.ctc.edu
Greg Cripe	00	gcripe@ewu.edu		Russell Sherif	rsherif@ctc.ctc.edu
Yves Nievergelt	vergelt	ynievergelt@ewu.edu	South Puget Sound	Cesar Villasana	vallasana cesar/spuget
Edmonds Berbera Maly	Maly	bmaly@edcc.ctc.edu		Kayana Schaps	KSCNBPS @ CIC.CIC.BOU
David Chalif	nalif	dchairf@edcc.ctc.edu	Coologo Folio	Ann Winkler	amw@cet.com
Jadwiga weyarii	yveyanı	meyant@euc.cic.eud	Opoliulio i uno	Ваграга Наггаз	bharras@ctc.ctc.edu
lim Francis		ifrancis@edcc.ctc.edu		James Brady	ibrady@ctc.ctc.edu
Melissa Mackay	Mackay	mmackay@edcc.ctc.edu		James Hallam	jhallam@ctc.edu
Gonzaga University Gail Nord	<u>a.</u>	nord@gonzaga.edu		Kialynn Glubrecht	kialynng@riscy.sfcc.ctc.edu
	rker	gparker@compbest.ctc.edu		Lars Neises	larsn@riscy.sfcc.ctc.edu
	/ett	ghyatt@ctc.ctc.edu		Nicole Duvernay	duvernay@cps.gonzaga.edu
Lynn Sie	Lynn Siedenstrang	lsiedens@ctc.ctc.edu		Penny Coffman	pcoffman@ctc.ctc.edu
Green River Christie Gilliland	Gilliland	cgillila@ctc.ctc.edu		Rudy Gunawan	rgunawan@ctc.ctc.edu
Joyce Hammer	ammer	hammerfmly@aol.com	acoma	Anne maier	kolerk@memail tacoma ctc edu
Keith Alford	ord	kafford@grcc		Mike Flodin	mflodin@msmail.tacoma.ctc.edu
Larry Larson	nore Minelle	Larry Larson issue the control of th		Rhoda Gage	rgage@msmail.tacoma.ctc.edu
Sally Glover	over	profsally@aol.com		Trung Tran ·	tran@msmail.tacoma.ctc.edu
Stephar	Stephan Kinholt	skinholt@grcc.ctc.edu	University of Alaska	Nancy Siemon	kinas@acad1.alaska.edu
Highline Ed Morris	<u>а</u> ,	emorris@hcc.ctc.edu	University of Colorado	Matt Munro	munro@uscu.colorado.edu
shington Technical	Buck	stbuck@aol.com	Walle Walle	Eric Schulz	eschulz@mail.ww.cc.wa.us
	James McGlothin	aset@teleport.com	Wenatchee Valley	Anne Gardner	agardner@ctc.ctc.edu
lege	mice	simice@nic.bc.ca	Western Washington University Charlene Snow	y Charlene Snow	vosburgw@sos.sos.net
	7	bdyer@seaccd.sccd.ctc.edu		Donna Rochor	donnar@henson.cc.wwu.edu
	CYO	dhimes@seaccd.sccd.ctc.edu		1.L. D.m.	reay@nessie.cc.wwu.edu
Denise	mes	dbrannan@seaccd.sccd.ctc.edu		John Heay	millie@henson.cc.wwu.edu
Earl Hamilton	mes Drannan	Columnia Concession		Millie Johnson	
	Dave Himes Denise Drannan Earl Hamilton	earlh@seaccd.sccd.ctc.edu		Millie Johnson Rochelle Mitchell	n9449831@henson.cc.wwu.edu
Pam Lippert	mes Drannan milton	earth@seaccd.sccd.ctc.edu plippert@seaccd.sccd.ctc.edu	Whitman	Millie Johnson Rochelle Mitchell Christi Bohmbech	n9449831@henson.cc.wwu.edu bohmbacl@whitman.edu



Skamania Lodge
In The Columbia River Gorge
HOW THE SKAMANIA LODGE CAME INTO BEING

QUESTION: What got the idea of a lodge and conference center going in Stevenson, near the Bridge of the Gods?

ANSWER: In 1986 Congress passed legislation that created the Columbia River Gorge National Scenic Area. This scenic area was created to protect natural, scenic and cultural resources and to stimulate the economy of the gorge region.

In the Scenic Area Act of 1986, the legislation authorized \$5 million to be appropriated for the construction of a conference center to be located in the State of Washington. The overall mission for the Washington side of the gorge was that a "single, full-service, multi-purpose, self-contained meeting center with flexible facilities" be designed and built. It was within this "mission statement" that Salishan Lodge, Inc. and Skamania County met the challenge and were awarded the project.

QUESTION: Who were the main players and what did each do?

ANSWER: There are four primary parties involved:

The Columbia River Gorge Commission conducted a market study to determine the demand for a conference center on the Washington side, developed specific criteria, and issued Request for Proposals in the fall of 1989. Of the eight proposals received, two were requested to make detailed presentations in June 1990. A tie vote resulted in an independent selection committee review. On September 25, 1990, the Commission voted in favor of the Skamania County and Salishan Lodge plan. The Commission continued to refine the Management Plan for the Scenic Area and published its final version in early 1992.

The USDA Forest Service worked to provide a viable, ongoing presence in Skamania Lodge through approval of the concept, the space design and the development of interpretive materials and programs. The USDA Forest Service will be a permanent presence in Skamania Lodge and will provide information and interpretive services to guests seven days a week.

Skamania County, through their Board of Commissioners, recruited Salishan Lodge in early 1990 to be their development partner. Working together, the county and Salishan Lodge developed the final presentation for the Columbia River Gorge Commission and US Forest Service. The county owned the property and entered into a long-term lease agreement with Salishan Lodge, Inc. Skamania County made a \$5 million commitment to the lodge project. When it became evident that the federal money would not be appropriated soon enough to enable construction to begin, the county committed an additional \$5 million toward equity in the lodge. This enabled the project to start on time. In late December 1992, the County passed land use ordinances and forwarded them to the Gorge Commission for their review. At this time, the County and the Gorge Commission are working toward revision of the ordinances.

Salishan Lodge, working with its associate, Grayco Resources, Inc., managed and developed the entire project. The day after the award, September 26, 1990, began a major Environmental Impact Statement as well as detailed architectural and engineering studies so actual construction could start in the summer of 1991. The opening would be in early spring of 1993. In this endeavor we used the talents of over a dozen professional consultants, received approvals from over 40 public agencies (city, county, state and federal) and started site preparation work July 16, 1991 about 10 months after the Gorge Commission gave their approval.

Salishan Lodge arranged equity investment and construction loans from private sources totaling approximately \$15.5 million; the total project is a public-private investment of \$25.5 million. Salishan is totally responsible to the County for repayment of the county's investment. Concurrent with project construction, recruitment of key personnel began in early 1991 and into 1992. In January and February of 1993 recruitment and training of about 150 employees took place. On February 26, 1993 Skamania Lodge opened as planned and hosted the first conference group.

QUESTION: Why this public-private partnership?

ANSWER: When Congress passed the Scenic Area Act, it mandated that a conference center be built on the Washington side

of the gorge, involving a public-private partnership. Skamania County owned 175 acres of land and desired to have it used as an economic spark for the area. Salishan Lodge thought the idea of regional economic stimulus was good and had successful experience in the resort/conference business. They decided to take the financial risk, coupled with the anticipated Federal grant of \$5 million dollars that was authorized in the 1986 legislation. This made the undertaking economically feasible. Thus, Skamania County, Salishan Lodge, Inc. and the Federal government entered into a unique three way partnership.

OUESTION: What are the economic benefits that are expected to flow to the public agencies?

ANSWER: Over a ten year period, the resort and conference center expect to generate approximately 235 jobs with an annual payroll of over \$3.9 million. Over the first ten years of operation, Skamania Lodge will generate over \$11 million in direct tax revenue: \$7.9 million in Washington State sales tax, \$1.5 million in sales and room tax revenue for the City of Stevenson, \$.7 million in property taxes for Skamania county and \$1 million in sales tax from project construction. The city, county and state governments will receive well over \$1 million a year in actual cash tax payments. This is a high public return on \$5 million. This return continues as long as the lodge operates. There is no on-going Federal costs after the appropriation of the promised grant money. The \$5 million Federal grant is yet to be appropriated although it was authorized in 1986.

QUESTION: Really now, what is Skamania Lodge?

ANSWER: We like to say it is a destination resort and conference center in a mountainous-river-gorge setting only 45 minutes from Portland, Oregon. We have 195 attractive guest rooms with all the essential support facilities. We are a state-of-the-art conference and meeting center, separate but connected to the guest room lodge and designed to make meetings a pleasure. We are a recreational center with a fitness center and swimming pool, a 18-hole scenic golf course with an excellent practice area, a tennis court and 4 miles of separate walking trails on the property.

QUESTION: What design principles were paramount in planning the project?

ANSWER: Because of the unique public-private partnership and an unproven location, we wanted an affordable lodge that people would enjoy coming to for relaxation, recreation and learning. We had to be efficient to operate, yet still have many warm and appealing features for guests. We chose to make it reminiscent of the old-time lodges of early 1900's which had charm and appeal. Thus, a four-story, high pitched roof, Cascadian-style lodge was constructed. We wanted interesting uses of timbers, with wood paneling and native stone. We strove for use of wrought black iron and comfortable furnishings that might remind you of by-gone days. We wanted pleasant visual experiences as you walked through the public spaces and into the Conference Center. We desired to use arts and craft products that were mainly created locally.

QUESTION: OK, now give us some specific examples of these design principles?

ANSWER: Some of the large timber columns in the Gorge Room are 100 years old. They came from a BumbleBee cannery in Astoria, Oregon that was being dismantled. The architects and designers wanted to incorporate large timbers that looked rustic. The recycled timbers fit the need. They extend above the Gorge Room into the Hood River Suite which is on the fourth floor.

The floor is Southern Longleaf Pine which is also recycled from a 150-200 year old building in Georgia. It was selected because it provided wide boards instead of the typical residential width wood flooring. It is a hard wood suitable for heavy use.

The lobby floor is a Montana slate. This particular slate was chosen for the color which compliments the rock of the fireplace.

The lobby and Gorge room surround an 85 foot tall fireplace. This fireplace was made with andesite rock, excavated from an abandoned quarry a few miles from the site. The estimated weight of this fireplace is 500,000 pounds.

You'll note the wood wainscot paneling in all of the guest corridors and the main floor-again a flash back to the early 1900's. In the rooms you'll observe fabric draperies at the closet openings to remind you of older lodges. Near the guest room doors you see a room number design that went through many variations before we settled on the wood and metal concept.

QUESTION: How about the window drapes and bed spreads?

ANSWER: Pendleton Woolen Mills designed and made this fabric for us. The fabric is a wool/cotton blend of original design for Skamania Lodge.

QUESTION: Who made the furniture we see in rooms and lobbies?

ANSWER: The furniture in the guest rooms is by Thurston, a family owned commercial furniture manufacturing company located in Grass Valley, California. The Mission/Lodge style furniture was not a standard product for Thurston, but a customized design to fit the Skamania Lodge theme. The Gorge Room settee, love seat and tables, the library chairs and tables, the lounge settee and tables, and the lounge chairs in each guest room were all produced by Walt Heck, a craftsman located in NE Portland. The lounge chair was an original Walt Heck design. Other pieces made by Mr. Heck were designed by Ankrom Moisan and are reminiscent of the Arts and Crafts era.

QUESTION: You have used many petroglyph rubbings as art work. What's the story?

ANSWER: In the early part of April 1992 we were able to purchase from Jeanne Hillis her collection of rubbings. Many of which she made from petroglyphs that are now flooded by waters of Bonneville and John Day dams. She was pleased to find a home for them where people could enjoy seeing them for years to come. We felt they were appropriate as they depict Native American history of this Columbia River Gorge region. We obtained from her 63 older rubbings and commissioned her to produce several rubbings from four sites still accessible. Many of the smaller ones are used in the guest rooms; the larger ones, numbering about 15 are displayed in public spaces. Artist Jeanne Hillis is still very active in the arts, She works and lives in The Dalles.

QUESTION: Where did you obtain the other art work used in the guest rooms?

ANSWER: We had some on hand in the Gray collection. We concentrated on Oregon and Washington artists and purchased from galleries in Portland, Seattle, Spokane and from local artists. We commissioned some works from Wayne Chinn, Dennis Cunningham, Lois Rahkonen, and Roy Setziol. A separate, detailed booklet on Lodge art work is being developed for guest use later this spring.

QUESTION: Why do you have some public artifacts on loan?

ANSWER: As part of our public-private partnership, we wanted a continuing and changing educational experience for our guests so they would have a better concept of early life in the Gorge area. Most museums can only display 10-20% of the artifacts they have in storage. We can help in a modest manner in public education by displaying a few selected items. We are starting with items loaned by the Oregon Historical Society and Maryhill Museum. In the future we'll probably use other desirable sources.

QUESTION: What is the story on the series of special ceramic panels in the covered hallway at the main entrance?

ANSWER: We wanted some tie-in with art work at Salishan Lodge. In 1965 Ray and Jere Grimm, Portland potters and glass artists, created a large ceramic wall piece used in a courtyard at Salishan. We commissioned them to create this multi-panel group. They took their theme from the Columbia Gorge and the Bridge of the Gods legend.

QUESTION: Now tell us a bit about the specifics of the building; the nuts and bolts if you wish?

ANSWER: The lodge is four stories with a partial basement and totals 153,000 square feet. The building is 750 feet long. Wood, stone and wrought iron are important design and structural elements. There are 250,000 linear feet of wood trim and 800 wood doors. The positioning of the building and use of windows and skylights were carefully considered to take maximum advantage of natural light and gorge vistas. You'll notice indoor and outdoor use of boulders. These were excavated during construction and used throughout the site for retaining walls, seating areas, the waterfall for the outdoor whirlpool and for the sundial sculpture.

QUESTION: Why do you have a U.S. Forest Service Information Center in your main lobby?

ANSWER: Again, this is part of our public-private partnership. This is staffed by the U.S. Forest Service personnel and their information is available to our guests and day-time visitors. They will also organize a variety of nature walks and talks for public enjoyment. To help this effort we created a small stone-seat amphitheater meadow as a gathering place. A fire pit can be used in the evenings.

QUESTION: The Health and Fitness Center has a different feeling, why so?

ANSWER: We wanted our guests and the public to have a different visual experience when they enter this area in contrast to the early 1900's feel of the lodge proper. Thus, it is much more contemporary and vibrant and makes use of harder materials.

QUESTION: Why did you provide so much public assembly and function space?

ANSWER: To make this an outstanding conference and meeting place. The wide hallways and extra lobbies are visually attractive reception and breakout spaces to handle a variety of guest and visitor functions.

QUESTION: What other rationale came into play as you planned the supporting recreational facilities such as golf, tennis, hiking and horseback riding?

ANSWER: We had a beautiful 175 acre site to work with. Our desire was to blend into the natural environment, become a part of it, disturb as little as possible, work around and with 10 wetlands, two lakes and overcome other natural obstacles. You'll be surprised to know that our wildflower meadow is over an old capped county landfill. In designing the 18-hole golf course we wanted to expose golfers to nature, capitalize on beautiful views and vistas and provide challenging golf that will bring them back many times. Nature dictated the course layout and was the chief architect. Golf cart paths were located so they are as unobtrusive as possible but still convenient to use and visually pleasing.

The Golf Pro Shop and practice area is planned as a separate facility as we anticipate many daytime users in addition to our lodge guests. An excellent practice area is available for driving, pitching, and chipping, sand trap work, and putting. Golf schools are a definite possibility. A convenient snack bar in the Pro Shop will be available to golfers and the public.

Hiking and walking trails were always part of our overall layout. We want guests and the general public to experience and enjoy local native vegetation, wildlife, access to two lakes, the small clear brooks and creeks, and yes, to sit quietly and enjoy a distant or close-up view of the surrounding area.

Four trail systems are being developed covering about four miles. Golf cart paths traverse about the same terrain. The Bridge of the Gods Golf Course will open June 12, 1993.

Two outdoor tennis courts are available for use by the public and lodge guests.

Seasonally, a private contractor will provide horseback trail rides onto public land nearby.

QUESTION: Where is the wildflower meadow?

ANSWER: The wildflower meadow is part of the "front lawn" area you see from the Gorge Room windows. The brown earth will grow and blossom with the spring warmth into indigenous grasses and wildflowers. The large sundial is nearby.

QUESTION: What don't we see but we know is here?

ANSWER: We have designed an outstanding "back of the house" facility located mainly in the basement for housekeeping, laundry, maintenance, food storage, employee locker and lunch rooms, personnel and accounting offices and shipping and receiving. Attention was given to providing attractive work areas for employees as well as convenient parking. Art work is used in many of the spaces. We always strive to provide well designed and equipped facilities for our employees. "Back of the House" tours will be provided upon request. We would be proud to have you see them.

QUESTION: Who designed the lodge logo?

ANSWER: Mel Ulven of Portland, Oregon designed the logo. It represents the gorge mountains and cliffs, Columbia River and the sun. The medium has the appearance of an arts and craft wood block cut.

Jany Shames 503-667-7340 (MHOO) 503-665-6249 (home) Dick Dickery

PO Box 189 Stevenson, WA 98648 Phone 800/221-7117
Operated by Salishan Lodge, also operators of The Salish Lodge and The Governor Hotel