Forty-Two Degrees To Be Given

Forty-two degrees for work in courses will be awarded at the sixtieth commencement of Montana School of Mines on Monday, June 6 at 8 p.m. There are nine graduates and thirty-three undergraduate degrees.

The recipients of the nine graduate degrees follow: Master of Science in Mining Engineering, Donald E. Callilc, Jr., Lewistown and Calvin L. Stevenson, Anaconda; Master of Science in Metallurgical Engineering, Alvin L. Collidge, Jr., Lewistown and Calvin L. Stevenson, Anaconda; Master of Science in Mineral Dressing Engineering, Johannes Dreyer, Kamieskroon, South Africa; Albert R. Rule, Butte; Donald E. Zipperian, Great Falls; Master of Science in Petroleum Engineering, Silbrun H. Lorck, Butte; Robert G. Mock, Butte; Robert G. Koch, Butte; Robert T. Rask, Butte; Syed Hamid Raza, Quetta, Pakistan; Gavri W. Riley, Bonners, Montana; Marvin L. Smith, Great Falls; Douglas H. Wadman, Cut Bank.

In addition to the degrees in science, an honorary Doctor of Engineering degree, honors causa, will be conferred upon Wayne P. Glenn, the commensurate speaker. Four professional degrees will be conferred on Edward P. Cadwell, Walter E. Dunoche, both Mineral Engineering, and William Love, and Neil Arthur O'Donnell, both Engineers of Mining.

Special acknowledgment of Dr. Rene H. Salens' many contributions to science will be made by Dr. Edwin G. Koch, president of Montana School of Mines.

Copper Lounge

Furniture Due

Dr. Koch announced recently that bids for the Copper Lounge furniture have been let, and that the building would be open for full use by the beginning of school next fall.

Dr. Koch on EAC

Dr. Edwin G. Koch, president of Montana School of Mines, has accepted appointment to the Education Advisory Committee of the American Institute of Mining, Metallurgical and Petroleum Engineers. Dr. Koch, who holds the title that the Mines has won since 1951, was the scene of the annual tournament round by defeating Rocky in the afternoon opener by a score of 4 to 3. The hitting of Dan Tidworth and Tom Liebeck was a key factor for the Mines victory. In the other morning game Western defeated Rocky by 4 to 3 to earn the right to face the Miners in the final.

Northern annexed the consolation round by defeating Rocky in the afternoon opener by a score of 8 to 6.

The first three games were played over the seven inning rules while the final game went into extra innings.

A big seventh inning was the deciding factor for the Mines. In that inning they piled up five runs to tie the score. Dick Crick opened the inning by beating out a double and a walk. Erickson singled to send Liebsch home and Bronson walked to set up the stage for Gross's triple which sent Erickson and Bronson home. A bad throw allowed Gross to come home and pitcher a three hitter to defeat Western 7 to 4 in nine innings.

Mineral Dressing Seminars Given

On Wednesday, May 18, Albert R. Rule, who is a graduate student, presented the seminar entitled "Emulsion Flocculation on a Nonmagnetic Taconite Ore." The paper contained the benefit to be accomplished for a Mill Range Taconite ore has been the subject of his investigation. Froth flotation, high-oil-emulsion flotation, and low-oil-emulsion system proved to be capable of recovering slime values and emulsion system have been analyzed in terms of flotation results. Also, the effect of some modifying and controlling reagents have been given consideration.

Inversion and stability of the emulsion system have been discussed by printed by electrical resistance measurements. These have been related to flotation results. Add that by experimental evidence, a qualitative hypothesis of the mechanism of the flotation reaction has been extended.

Interested faculty and students attended both of the well-presented seminars.

Miners Top Western 7-4

On Saturday, May 21, the Montana School of Mines took the conference baseball title by defeating Western 7 to 4. It was the first title that the Mines has won since 1951. The final game was a fitting climax to a fine season turned to be by the Grizzlye nine. The squad was under the able leadership of Bill Callen, assistant man and president of the Copper League, Duggan Memorial Park was the scene of the annual tournament.

Peter Gross and Ken Erickson each pitched a victory and both played the outfield for the game. They were hitting .300 for the season in five days at the plate to compliment their work on the mound.

In the morning game Pete Gross worked behind errorless support and pitched a three hitter to defeat Northern Montana of Havre by a score of 9 to 0. The hitting of Dan Tidworth and Tom Liebeck was a key factor for the Mines victory. In the other morning game Western defeated Rocky by 4 to 3 to earn the right to face the Miners in the final.

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The Amplifier

EDITORIAL

With this issue of the Amplifier, the school year is journalistically speaking—over. In continuation of our editorial policy, this editorial will avoid the “good luck graduating seniors” and “have a nice summer type of writing. In continuation of our policy of not mentioning football, this sport will be devoted to next year’s football team—or rather its abolition.

Football is an integral part of the “great American scene,” as much as the turning of the leaves, football symbolizes autumn in America. Football is yelling, color, hand signals, injury, a nip on the sly, the smell of hot dogs, a blanket to huddle in. Football is a tradition.

But football, like so many traditions, is too often accepted without question. It happens, seemingly automatically, every year in nearly every college across the nation. It has been only quite recently, in fact, that some of the colleges have looked at their athletic programs, especially that of football, objectively, in cases, led to the discontinuance of intercollegiate football.

It is time that Montana School of Mines located objectively at its football program. The last football game a Mines team won was—well when was it? No one seems to recall exactly. Some seem to remember hearing about one in 1949, others think it was six or seven years ago. Everybody is sure of one thing though, it was before they came to school here.

This last season’s football team at the Mines was successful by Mines’ standards. They scored at least one touchdown in every game. A successful year for football. This is not an impressive figure as college football is not something anybody could call a serious sport. It is purely for the purpose of exciting the student body and providing an opportunity for the student council to get its name into the papers.

Consider the Source

The Montana School of Mines is one of the premier institutions of higher education in the state of Montana. It is a public research university with a focus on engineering and related fields. The school was founded in 1873 and is located in Butte, Montana. It is the oldest institution of higher learning in the state and one of the original land-grant colleges.

The Amplifier is the student newspaper of the Montana School of Mines. It is published weekly during the academic year and covers news, events, and opinions related to the university and its community. The newspaper is written and edited by students and is a platform for student expression and perspectives.
Western Rules

Track and Field

Western Montana College of Education and 
Agriculture of Dillon won the 
Montana College track and field cham-
ponship by a wide margin here 
tana College track and field cham-
pionship by a wide margin here 

The Intramural Championship was won by the Theta Tau fra-
ternity, which recently won the soft-
ball championship, to give them a 
total of 219 points for the 1960-61 
school year. A first place trophy 
has also been awarded this fra-
ternity. The Independents placed 
second with 203 points and the 
Sigma Rho third with 91.

The Intramural season has been 
close all year and was not decided 
until the softball league was com-
pleted. All intramural activities for 
this year have been completed and 
would have to be termed 
"very successful" for the number 
of Mines' male students who have 
competed and had a lot of fun.

There is a recap of the year's 
championships and run-ups in each 
of the sports activities covered by 
this program.

Basketball

1. Goodnight, Austin, John 
Hennett, Terry James, Mike Kee-
nor, Bob Laughran, Bob Pick-

2. Theta Tau No. 1—Dave Cushing, 
Bob Donaldson, Harvey Han-

3. Theta Tau No. 1—Art 
Boehtech, Ken Erickson, Peter 
Green, Harvey Hannah, Gay Krav-

4. Montana—Dave Cushing, 
Ken Erickson, Bill Thompson.

Softball

1. Theta Tau—Scott, Gay 
Krack, Bob Donaldson, Jerry 
Bates, Art Baton, Dick Von-
cellette, Darrell Day, Doug Wad-

2. Seniors—Jim Donovan, Kelley 
Hemmert, Mike Maddocks, Don 
Mahagn, Don McMillan, Bob 
Weaver, Eastern. 

3. Weaver, Eastern. 

Erickson Elected 
Honorary Captain

At a dinner held at the 
Vega Club in honor of the Mines Cham-
pionship baseball team on Mon-
day, May 23, Ken Erickson was 
elected captain of the team. Ken 
is a senior graduating in Mining 
and has lettered three years in baseball 
competition. This year, as a 
pitcher, Ken was undefeated, 
winning two games. He 
pitchered the Championship game 
and helped Western Montana to four 
runs. He was the only survivor on the 
team.

Point winners:

High Hitters—Miller, Western; 2 
Vaillanc, Western; 3 Newbury, 
Eastern; 4 Beck, Eastern. 

Teammédia

115-1—M

100-Yard Dash —Robinson 
Western; 2 Dover, Eastern; 3 Kel-
ley, Rocky; 4 Kovtch, Northern. 

120-Yards Hurdles—M

300-Yard—K

544-4—Taylor, Western; 2 Sol-
vig, Western; 3 Knott, Northern; 4 
Weaver, Eastern. 

400-4—Taylor, Western; 2 Sol-
vig, Western; 3 Knott, Northern; 4 
Weaver, Eastern. 

1 Mile—1 Nau, Western; 2 Con-
griff, Western; 3 Wilcox, Rocky; 4 
Kondorsk, Northern. 

2 Mile—1 Terry, Northern; 2 
Stevenson, Western; 3 Beck, East-
ern; 4 Terry, Eastern. 

880-4—Nau, Eastern; 2 
Grenzinski, Rocky, Time 1:55. 

1 Mile—1 Terry, Northern; 2 
Grenzinski, Rocky, Time 4:38.

Pole Vault—1 Bennett, Western; 2 
Dunlop, Western; 3 4 Tie Dyer 
of Mines and Wrenzinski of 
Rocky. Height 12' 0" (record). 

Shotput—1 Carpenter, Rocky; 2 
Sharp, Western; 3 Dunlop, West-
ern; Distance 46.25 (record). 

Javelin—Cabbage, Western; 2 
Selvig, Western; 3 Kielbuehler, 
Western; Distance 253.9 (record) 

Discus—1 Carpenter, Rocky; 2 
Haines, Eastern; 3 Dunlop, West-
ern; Distance 44.61 (record). 

High Jump—1 Miller, Western; 2 
Haines, Northern; 3 Fletcher, 
Eastern. Height 12. 

Relay Races—Western, Northern, 
Four to Receive Professional Degrees

Four professional degrees will be awarded this week at Montana School of Mines. E. W. Cusick, dean of the School, announced that the degrees will be conferred during the annual commencement exercises to be held Wednesday, June 8.

The degree of Mineral Dressing Engineer will be awarded to Ed- ward H. Cushing, mining and mill superintendent for the Front Range Mining Co., Butte. The degree of Engineer of Mines will be conferred on James C. Seitz, mining and mill superintendent for the American Smelting and Refining Co., Baltimore. The degree of Chemical Engineer will be presented to John L. Jordan, research chemist for the Consolidated Copper Co., Miami, Arizona. The degree of Mineralogist will be awarded to Robert R. Anderson, mining engineer for the Anaconda Company, Anaconda.

Students Honored At Convocation

The Third Annual Honor Convocation was held on Wednesday, May 26 in the Library Museum Hall. During the convocation the following awards were made:

Prof. W. A. Voss, head of the mining engineering department, said that this year the mining engineering program has produced more well-qualified students than in any previous year.

Placements Are Posted

The Montana School of Mines Placement Service announces the following placements for Senior and Graduate Students. The list is not complete as some students are still considering offers and others are contemplating graduate work or service in the armed forces.

Know Butte...

Back in July, 1896, Butte really had growing pains in the making. The mines were turning out record production. Every 24 hours 8,000 tons of ore were being hoisted to the surface. These were the days before the vestibule era.

The pay rolls contained more names than at any previous time in Butte's history. New companies were operating. New problems were cropping up.

The sale in that month of a small block of ground near the Parrot for $800,000 was the first of a series of events this side of the century that established Butte as a mining capital.

Nuts 'n Bolts

By Jack Bennett

By a uranium-lead dating method of sub-surface rocks in South Africa, 19 million years ago. These are the oldest rocks that were discovered near Murmansk, Russia, in 1958. These tests have led scientists to the radioactive decay and have an accuracy within an error range of a few percent. These methods measure the radioactive decay of uranium-235 to lead-207 and 206. Rocks more than 50-, 60- and 70-million years old are dated by radioactive test.

The tests have led scientists to the geologic time column. The new findings shows that many stages and pushes back the major subdivisions of (periods of past) dating. The Permain纪纪 Age of the Triassic period is now established at 250 million years ago instead of 250 or 300 million years ago. The beginning of the Devonian has been set back to 400 or 400 million years ago instead of 350 million years ago. The Permian-Triassic boundary has been lengthened from 25 million years to 30 million years and has also been moved back in age. The end of the Triassic is now set to have ended 155 million years ago, has been established at 190 million years ago. These new findings have also been a new breakdown of the Triassic period. In addition, the new chronology of the Tertiary is based upon age measurements of volcanic ash in the western U. S. and a graded series of vertebrate fossils and the abundance of certain groups of plants and animals. The new findings have also been a new breakdown of the Triassic period. In addition, the new chronology of the Tertiary is based upon age measurements of volcanic ash in the western U. S. and a graded series of vertebrate fossils and the abundance of certain groups of plants and animals.

Pay School Bills

OPEN A CHECKING ACCOUNT TODAY

Marvelin, Robert

Marvin L. Smith Shell Oil Company

Robert Rutter Assistantship—South Dakota School of, Ingersoll Rand Company, Pittsburgh, Pa., with Shell Oil Co.

Richard Vinicente University Graduate work—Stanford University

Douglas University Graduate work (summer work with Pan American Petroleum Corp.)

Graduates:

Harold Coolidge Inland Steel Company Donald E. Johnson American Smelting and Refining Co.

Kenneth F. Pearson, Jr. Pan American Petroleum Corp.

Lidburn Luck Continental Oil Co.

Sam H. Ranis State College

Albert Rule Inland Steel Company Donald Zimmerman Justice & Lauigh Steel Corp.

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The Montana School of Mines Amplifier Friday, June, 3, 1960