CALVIN

College

2008 COMMENCEMENT

Saturday May Seventeen Two O'Clock

PRAISE TO THE LORD, THE ALMIGHTY

Ioachim Neander

Ernewerten Gesangbuch

Praise to the Lord, the Almighty, the King of creation! O my soul, praise him, for he is your health and salvation! Come, all who hear; brothers and sisters, draw near, join me in glad adoration!

Praise to the Lord, who o'er all things is wondrously reigning, sheltering you under his wings, oh, so gently sustaining. Have you not seen all that is needful has been sent by his gracious ordaining?

Praise to the Lord, who will prosper your work and defend you; surely his goodness and mercy shall daily attend you. Ponder anew what the Almighty can do as with his love he befriends you.

Praise to the Lord! O let all that is in me adore him! All that has life and breath, come now with praises before him! Let the amen sound from his people again. Gladly forever adore him!

THE CALVIN ALMA MATER

Dale Grotenhuis Celia Bruinooge

Calvin, Calvin, Sing we all to thee;
To dear Alma Mater we pledge fidelity.
Forever faithful to maroon and gold,
Thy name and honor we ever shall uphold.

Calvin, Calvin, God has been thy guide;
Dear Alma Mater, thy strength He shall provide.
Be loyal ever to the faith of old.
God's name and honor we ever shall uphold.

ORDER OF COMMENCEMENT

Prelude: Moorside March Gustav Holst, arranged by Gordon Jacob

Processional: Pomp and Circumstance March No. 1 Edward Elgar

Calvin College Band, Tiffany Engle, D.M.A., conductor

***Opening Hymn:** Praise to the Lord, the Almighty

*Invocation: Bastian A. Knoppers, B.A., Chair, Calvin College Board of Trustees

Introduction of

Commencement Speaker: Gaylen J. Byker, Ph.D., President

Commencement Address: "Free at Last"

Philip Yancey, M.A.

Author

Presentation of Awards: Jeffrey L. De Nooyer, B.A., President, Calvin Alumni Association,

to David J. Dykgraaf, B.A., and Janice Entingh Dykgraaf, B.A., Class of 1966 and to Fritz M. Rottman, Ph.D., Class of 1959, Distinguished Alumni

Remarks on Behalf

of the Senior Class: Benjamin R. Graves, Student Senate President

*Litany for Commencement

Conferring of Degrees: Claudia DeVries Beversluis, Ph.D., Provost, and Gaylen J. Byker, Ph.D., President

Presentation of Diplomas

*The Calvin Alma Mater

Closing Remarks

† **Recessional:** Sine Nomine Ralph Vaughan Williams, arranged by Alfred Reed William

The 19 yellow roses on the platform celebrate the passion, joy, and friendship that marked the life of Colby Edward Morath, 5/2/86 – 7/4/05.

^{*} Audience standing

[†] The audience is requested to be seated until the faculty and graduates have exited.

LITANY FOR COMMENCEMENT

Liturgist:

Blessed are you, Lord our God, Ruler of the universe.

You are the Beginning and the End, Sovereign over all times and all things, Source and Sustainer of everything good. Just and true are all your ways.

People:

Blessed are you, Lord our God, Ruler of the universe, and blessed is your holy name forever!

Liturgist:

In Christ you are making all things new. You reach out to rebels and call us friends; you lavish your Spirit on the undeserving and make us stewards of your purposes.

People:

Blessed are you, Lord our God, Ruler of the universe, and blessed is your holy name forever!

Liturgist:

We celebrate your grace in those who graduate. For the vital habits of mind and heart that have brought them to this day, for intellect, imagination, and authentic piety,

for disciplines faithfully acquired and skills fruitfully applied:

People:

For these and all your gifts to us, we thank you, gracious God.

Liturgist:

We celebrate your grace in this community of faith and learning.

for diversity within shared purpose and for the complex rhythms of our life together,

for knowledge shared and insights deepened, conversations joined, convictions tested, horizons widened, heritages rediscovered:

People:

For these and all your gifts to us, we thank you, gracious God.

Liturgist:

We celebrate your grace in all who go out from this place.
For those whom we honor today as distinguished alumni, and for all those who invest what they have received to build, serve, teach, create, encourage, or renew, who honor you by healing hurts and repairing the broken places of our world:

People:

For these and all your gifts to us, we thank you, gracious God.

Liturgist:

You are faithful in all that you promise; keep us faithful in all that you entrust to us.

People:

As you multiplied loaves and fishes across a crowded hillside, so multiply our talents and desires across our span of years.

May our learning blossom into wisdom, our knowledge of your world into passion for your will, our ambition for achievement into love of peace and justice.

Liturgist:

May your favor rest upon us, O God.

People:

Bless and establish the work of our hands.

All:

For all honor and glory and power are yours, now and forever.

Amen

COMMENCEMENT SPEAKER

Philip Yancey

Philip Yancey earned Master of Arts degrees in Communications and English from Wheaton College Graduate School and the University of Chicago. He joined the staff of *Campus Life Magazine* in 1971, and worked there as Editor for eight years.

Since 1978 Philip Yancey has primarily concentrated on freelance writing. More than 600 of his articles have appeared in 80 different publications, including Reader's Digest, Publisher's Weekly, National Wildlife, Saturday Evening Post, Christian Century and The Reformed Journal. He writes articles and a monthly column for Christianity Today magazine, which he serves as Editor at Large. Also, he serves as Co-Chair of the Editorial Board for Books and Culture, a recent publication of Christianity Today.

His sixteen books include Where Is God

When It Hurts, The Student Bible, and Disappointment with God. These books have won eleven Gold Medallion Awards from the Evangelical Christian Publishers Association and have sold more than five million copies. (Fearfully and Wonderfully Made, In His Image, and The Gift of Pain were co-authored with Dr. Paul Brand.) Christian bookstore managers selected The Jesus I Never Knew as the 1996 Book of the Year, and What's So Amazing About Grace? won the same award in 1998. His most recent books are The Bible Jesus Read, Reaching for the Invisible God, Soul Survivor, Rumors of Another World, and Prayer: Does it make any difference?

The Yanceys lived in downtown Chicago for many years before moving to a very different environment in Colorado. They enjoy hiking, wildlife, and all the other delights of the Rocky Mountains.

MESSAGE FROM THE FIFTY-YEAR REUNION CLASS

Dear Calvin College Class of 2008:

What a great day for you—the Calvin College class of 2008. Today you end one journey and begin another. As members of the Calvin Class of 1958 we rejoice with you, thank God for you, and pray God's richest blessings for you.

Years ago a wise professor said "Where you go to college will affect the rest of your life." We, the Class of 1958, know now how true that is. We will always be thankful that it was Calvin that shaped our lives and prepared us for the years ahead. Back then we could never have imagined things like space travel, global warming, terrorists flying planes into skyscrapers, \$4.00 a gallon gasoline, or 42 cent postage stamps. We had never heard of Websites, e-mail, cell phones, or spam.

But God prepared us for what lay ahead through the well-grounded reformed scholars at Calvin College who gave us a biblically based world and life view. We knew where evil was rooted. We understood that a better world depended on One outside our world. We had absorbed Abraham Kuyper's dictum, "There is not a square inch in the whole domain of our human existence over which Christ, who is sovereign of all, does not cry 'Mine!'" We made the commitment to be salt and light in our fallen world. We faltered often, but God was with us. And, he will surely be with you too.

We are glad for the Christian education you have received at Calvin. You leave with a reformation-influenced vision, rooted in the Word of God. You leave to grapple with a furiously changing and increasingly secularized world. Your task—a huge task—is to transform this world and to claim it for Christ. It belongs to him. We trust that you will make a difference, a difference that your education at Calvin has made possible.

Though many things will change in the next 50 years some things will not. Our faithful God is changeless. His Word will ever be true. In the years ahead there will be communities of faith, times and places for worship, kingdom enterprises, and the timeless gospel of our Lord Jesus Christ. And by God's grace there will be a Calvin College where your children can receive the same God-inspired vision and the same quality education that has shaped your lives.

Leave here today remembering that God has placed you in his world at this time for his purposes! Go out with his blessing. Go out and do your best for him. What you do for Christ will last.

Congratulations class of 2008; and may God go with you!

Alvin Vander Griend, for the class of 1958

DISTINGUISHED ALUMNI

The Calvin Alumni Association is proud to present two alumni with the Distinguished Alumni Award. Persons honored in such a way have been chosen by an independent selection committee comprised of alumni, faculty, and staff and are endorsed by the Calvin Alumni Association Board.

Recipients of the Distinguished Alumni Award have made significant contributions to their fields of endeavor, are recognized by their associates for outstanding achievements, and manifest a Christian commitment that reflects honor upon Calvin College.

David J. Dykgraaf, B.A., and Janice Entingh Dykgraaf, B.A., Class of 1966

Dave and Jan Dykgraaf's life work can be summarized in a word: *Ushimashima*. It's a name that was given to Dave by the Tiv people, a large tribal group in the middle of Nigeria. The name means "one whose heart is like our heart."

The name is especially meaningful to the couple who have spent more than forty years as mission-aries, striving to communicate the good news of God's love for all people in all places. "Immersion into language study won me acceptance into Tiv compounds and hearts," Dave said. "I learned a life lesson: People like you to be interested in them."

Long before the couple became missionaries, they were interested in people and other cultures. "My family subscribed to *National Geographic*, so I was exposed to many different cultures through pictures and articles," Jan said. "I was fascinated by the variety of differences in cultures and customs in God's world. I remember wondering what it would be like to live like the people in the magazines."

As a child, Dave took a keen interest in missionary visits to his home church, Comstock Christian Reformed Church in Kalamazoo, Michigan. As children, both Dave and Jan entered a contest for the Women's Missionary Union; Dave won first place for the boys and Jan won first for the girls. Their prizes—each received one of a matching set of carved ebony elephant mantelpieces—were reunited when they married eight years later.

Still, a lifelong career in mission work was far from either of their minds when they attended Calvin in the mid-1960s.

"I wasn't firm in my choice of any career," Dave said. "I bounced from pre-sem to psychology to education, and in all that exploration found the professors teaching about the lordship of Jesus Christ in all careers in life. So ending up as a teacher of English language, African history, health, and agriculture fits the picture."

The Dykgraafs' first missionary experience was a 2½-year term in Nigeria. "We thought we would go for a few years to see what it was like, never dreaming that God would keep us there for 40 years," Jan said. "In fact Rev. Henry Evenhouse [then the Christian Reformed Church's director of foreign missions] tried to impress on us the need to consider becoming career missionaries, but we agreed to just one term," added Dave.

One term soon turned into two decades in which the Dykgraafs learned the Tiv language, taught, and helped start a church-owned agricultural project.

"I didn't do well in languages while at Calvin," said Dave. "In fact, I dropped out of Latin, and that was the end of my attempt at pre-sem training; my scores in German weren't impressive either. (When I became a missionary) motivation was the only difference. There were real people in Tivland that I wanted to know. Memorizing and correctly using all those noun classes was closer to delight rather than a bore."

Their experiences among the Tiv people helped prepare the Dykgraafs for the second half of their career among the Avadi people in northwest Nigeria in Niger State. Here they have spent the most challenging and most rewarding time of their lives.

"The Avadi are a group of people that had never heard about God's love," Jan said. "They live in an area of few roads, schools, or medical facilities. They were the low people on the social totem pole and were the last to receive government advantages; their language was not yet written."

The Dykgraafs came to the area in January 1988. They began, with others, to study the culture and religion, write the Avadi language, do evangelism and church planting, disciple new Christians, drill wells, bring medical treatments, build schools, and improve agricultural practices.

"The most important part of our mission here has been to speak and live God's love to the Avadi and help the new Christians realize belonging to Christ envelopes the whole person in every aspect of his or her life," said Jan. "Seeing men and women come out of the darkness of African traditional religion into the light of God's love and peace has been the biggest blessing we could have ever received."

Jan directed the development of Christian schools in the area. The first Avadi children to attend the mission schools will graduate from grade twelve this year. Jan is currently consultant to the present school supervisor. She also tutors local church leaders on how to be effective adult literacy teachers.

Dave has been involved in agriculture teaching and was team leader of the missionaries. Both Dave and Jan helped build churches, primary schools, a medical clinic, a guest house, and housing for employed teaching, medical, and evangelism staff. Currently, Dave teaches at the Bible school—one of four staff members—instructing in English language, history, church history, geography, health, agriculture, Bible translation principles, and comparative religions.

Throughout their time in Africa, the Dykgraafs raised two daughters, Annelies '91 and Jayne Bahr '92. Being separated from family all of these years has been one of the significant trials of their work—and one of the reasons they accept this award with gratitude.

"We are happy that mission work is being recognized as worthy of such an award," said Jan. "We accept the award gladly in honor of our faithful Lord, Christian Reformed World Missions, our mission colleagues, our supporting churches, our prayer partners, our Nigerian Christian brothers and sisters, and our families from whom we have been separated for so long."

Among the Avadi people, David received another name: *Habara Uri Magaji Debi*, "the old while man, David, who holds the religious title of pray-er." For that David is grateful to the Avadi: "Thank you, Avadi, for hearing me say, 'Bring your issues, requests, desires to the Lord in your own language because He is the risen Lord who hears and answers your prayer."

Fritz M. Rottman, Ph.D., Class of 1959

For Fritz Rottman '59, being involved in unraveling the genetic code revealed an awesome and beautiful aspect of God's creation. This discovery opened the door to further understanding the genetic blueprint of all living systems. Rottman focused his career on piecing together some of the steps whereby cells use information contained in DNA to build proteins.

As a student at Calvin in the late 1950s, Rottman was interested in chemistry and biology but knew he couldn't pursue both. "During my senior year, I recall Professor Doc De Vries calling me into his office and asking what I planned to do after graduation. He said, 'Have you considered biochemistry?' At that time, biochemistry was a new field that I had never heard of. I remember asking, 'What's that?'"

Because it was a blend of both areas of interest, Rottman pursued graduate work at the University of Michigan in biochemistry. Toward the end of his graduate work, he became interested in the research of Marshall Nirenberg, who had just reported on a possible approach for unraveling the genetic code.

"Providentially, my thesis adviser knew Dr. Nirenberg, and that's how I ended up at the National Institutes of Health, doing a three-year postdoctoral fellowship, working on the genetic code," Rottman said. "It was a very exciting time because everyone was thinking it might be possible to unscramble the genetic code, but no one knew what the code words would be."

Approximately every three months, the team discovered a new three-letter code word for one of the 20 amino acids, which are the building blocks of proteins. "It was like unscrambling a giant living puzzle," Rottman said. "Eventually we defined the code words for each amino acid and established that the same code words were used in all living systems. We were fortunate to have found that last piece of the puzzle."

In 1968, Nirenberg won the Nobel Prize for deciphering the genetic code. By that time, Rottman had secured an appointment at Michigan State University as a professor of biochemistry. While at Michigan State, Rottman's laboratory continued research in molecular biology and described the "start signal" for messenger RNA, the working copy of DNA.

"Like all discoveries in science, our work was built on the shoulders of many other scientists preceding us," Rottman said. "That's how science progresses—always building on what is known to make that next step in understanding the unknown."

After a fifteen-year tenure at Michigan State, Rottman became professor and chairman of molecular biology at Case Western Reserve University (CWRU) School of Medicine. "Case Western was rather unique; there was a close working relationship between basic scientists and many clinical research physicians, which included a major focus on HIV/AIDS and other diseases somewhat unique to developing countries," said Rottman.

Because of the nature of his research, Rottman frequently spoke publicly about scientific progress and the intersection of faith and science. The unscrambling of the genetic code and subsequent cloning of specific genes led to many discussions about the potential dangers of this research, where it might lead, and if science was meddling in a part of God's creation that could better be left alone.

Rottman's perspective is that the advances in our understanding of living systems are gifts from God that can and should be used for the greater good of society.

Now retired and living near Grand Rapids,

Rottman remains connected to research through his affiliation as a trustee for the Van Andel Research Institute, an independent, world-class medical research facility, in Grand Rapids. Since retirement in 1999, he and his wife, Carol Vanden Bosch '60, have also become involved with the Christian

Reformed World Relief Committee (CRWRC).

"While at Case, Carol and I were frequently challenged by colleagues in clinical medicine to spend time in Africa and become better acquainted with the terrible effects of HIV/AIDS, malaria and TB on the lives of our African neighbors. On our early trips to Africa with CRWRC staff and friends from the area, we experienced both the beauty and the tragedy of life in rural villages, whose residents

had no access to drugs for treating these diseases."

Since that time, the Rottmans have made multiple trips to Africa, focusing primarily on HIV/
AIDS treatment. A collaboration has developed between CRWRC, Case Western HIV/AIDS specialists, and treatment programs of the Ugandan

government. Resources from each of these groups

unite in remote villages, where access to drugs

would otherwise not be available.

Throughout his career, Rottman has maintained close ties with Calvin. His three children—Doug '86, Barb Hoogenboom '83 and Sue Naum '88—are Calvin graduates. Currently, the Rottmans live on acreage north of Grand Rapids, where they have worked to restore the land to a native grass and wildflower prairie. Calvin biology professors Randy Van Dragt and Dave Warners, along with Calvin students, use the prairie for environmental studies.

Of the Distinguished Alumni Award, Rottman said: "I have always been grateful for my training at Calvin, the broad exposure to a world- and life-view and strong friendships that continue to this day. I've benefited from a solid preparation in science and exposure to many other fields, thanks to the comprehensive curriculum and the dedicated professors at Calvin. Looking back over my career in science, I now see God's hand more clearly than when I was actively engaged in research. And while visiting Africa or here on the native prairie, I am constantly amazed at God's creating and sustaining power."

BOARD OF TRUSTEES

David A. Zylstra, M.Div. Prinsburg, MN

Darlene Meyering, B.A. Assistant to the Board of Trustees

Regional Trustees	Alumni Trustees	
William J. Alphenaar Jr., M.S.	Ronald E. Baylor, J.D.	
Grand Rapids, MI	Kalamazoo, MI	
Douglas H. Bratt, M.Div.	. Ruth J. Vis, B.A	
Silver Spring, MD	Grand Rapids, MI	
Joseph A. Brinks, D.Min.	Ralph Luimes, M.E.	
Portage, MI	Caledonia, ON	
Roger N. Brummel, Ph.D.	At Large Trustees	
Holland, MI	Terry L. VanDerAa	
Craig D. Friesema, M.B.A.	Hinsdale, IL	
Racine, WI	Stephen C. L. Chong, J.D.	
James Haagsma, M.A.	Gotha, FL	
Byron Center, MI	Thelma F. Venema, B.A.	
Gerald L. Hoek, M.Div.	Crown Point, IN	
Nolensville, TN	Bastian A. Knoppers, B.A.	
Craig B. Klamer, B.A.	Oak Brook, IL	
Grand Rapids, MI	Harry W. Lew, M.Div.	
Ronald M. Leistra, M.A	Grand Rapids, MI	
Tigard, OR	Scott A. Spoelhof, M.B.A.	
Martin Mudde, B.S	Holland, MI	
Ottawa, ON Alyce Oosterhuis, Ph.D.	Jin So Yoo, M.Div. Canyon Country, CA	
Edmonton, AB Mary Poel, M.D.	David Vander Ploeg, J.D. St. Joseph, MI	
Gallup, NM	Michelle L. Van Dyke, B.A.	
William R. Ryckbost, M.B.A. Holland, MI	Grand Rapids, MI	
Peter J. Schuurman, M.Div., M.A	Janice VanDyke-Zeilstra, B.A.	
Guelph, ON	Hinsdale, IL	
Karen L. Wynbeek, M.A.	Cynthia A. Rozendal Veenstra, B.A. Kalamazoo, MI	
Cupertino, CA David A. Zylstra, M.Div.	Noberto E. Wolf, M.Div. Bellflower, CA	

CANDIDATES FOR DEGREES AND CERTIFICATES 2007-2008

MASTER OF EDUCATION

Emily L. Bareman Timothy L. Blamer Steven H. Bradley Diane J. DeBruin Leanne W. Doornbos Richard K. Dykstra Helen L. Emmelkamp Rebecca J. Ezell Kerry M. Fernandez Sheri D. Gilreath-Watts Laura A. Greenwood Sandra M. Hooey Jungsun Hwang Rebecca M. Kissinger Laura J. Miller Yong Duck Park Thomas S. Postema Kara C. Sevensma Zurisadai Suero-Lantigua Mary E. Travers Lisa J. Vos Joyce R. Wandawa Kelsea J. Windemuller

BACHELOR OF ARTS OR BACHELOR OF SCIENCE

General Program:
Humanities majors –
Art, Art History,
Asian Studies, Classics,
Communication, English,
Foreign Languages,
History, Music,
Philosophy, Religion

Sarah E. Abbott Ioshua M. Ahrens Elizabeth P. Alexander Lauren A. Apicella Kristina M. Arbogast Amy R. Baas Iessica I. Baker Heather D. Balon Iessica L. Bareman Iessica A. Bauckham Lauren C. Bayliss Michael S. Boerkoel Amie L. Bommelie Erica L. Boonstra Peter T. Bosch Christine L. Bosma Peter E. Braswell Lisa I. Brecker Stephen S. Brooks Leah M. Brower Chervl L. Brown

Mark J. Brown

Rachel L. Buit Michael J. Bulthuis Matthew D. Burns Christina I. Bylsma Jordan C. Carr Nicole E. Case Jeremy M. Chacko Victoria A. Charles Jordan E. Clegg Peter W. Clemo Allison C. Clinch Carl B. Conner Benjamin Cook Elissa S. Corey Ricardo J. Davila Philip I. De Boer Amy E. de Jong James P. Dekens Joshua S. Dekker Megan S. DeKryger Deborah L. Den Braber Lauren E. DeVos Iill C. De Vries Leanne N. de Waal Malefyt Katherine A. Dorn Janelle N. Drew Krista L. Drew Patrick D. Duff Samantha L. Ehlert Ryan A. Eldridge Carolyn F. Eller Luke J. Emanuelson Hannah E. Engle Alec J. Eshelman

Rebecca A. Feikema Jason M. Fizer Anna M. Fongers Kristen L. Geertsma Joel A. Geib Christine A. Gifford Elizabeth R. Gonzalez Glenn D. Gould Benjamin R. Graves Matthew S. Gruppen Austin J. Hakes Matthew T. Hall Elizabeth A. Hamersma Emily F. Hanna Ian C. Hardy Anna J. Harkema Graham D. Havs Kathryn E. Healey Angela M. Higgins Katie A. Hill Jonathan H. Hirte Nathan W. Hoeksema Bradford S. Hoff Amy K. Hoisington Laura K. Hollingsworth Robert J. Holthouse Jared J. Huffman Daniel J. Hughes Elizabeth A. Huizinga Tad S. Hulst Ashley J. Hutchison Lindsay A. Hutchison Nicholas R. Isles Rory K. Jansen

David S. Jasperse Rvan E. Jensen Stephanie S. Jung Drew P. Karlburg Brenda M. Katerberg Jana B. Kelder Bryan D. Kibbe Paula M. Kielstra Jason J. Kim Stephen Kim Justin M. Kincaid Simon C. Kittok Janna L. Kliewer Nathaniel R. Knapper Jeffrey D. Knol Jeremy H. Koh Jordan T. Kohl Jordan T. Kok Lucas N. Koole Stephanie L. Kooyman Geoffrey N. Kruger Michelle A. Kuperus Theodore J. Lackman Matthew H. Landheer Christina J. Lechlitner Kyle R. LeRoy Brooksanne M. Levitske Yeong Gwang Lim Katelyn C. Maddox Christopher P. Mangione Tonya K. Marcotte Lynn K. Marsh Jennifer L. McIntosh Philip D. McMillan

Christopher M. McMorrow Alyssa M. Medenblik Meredith J. Mele Stephen C. Mellis Jeri E. Meninga Christine R. Meyaard Amanda D. Meyer Jennifer A. Mitchell Ashley L. Mulder Chelsea R. Muller Patrick A. Mundwiler Casey J. Nagle Whitney A. Nelson Emmanuel A. Okaalet Elizabeth L. Oliver Julie A. Osterink	Paul T. Prins Leah S. Rauk William L. Reynolds Christina M. Ritsema Jared J. Roberts Kevin D. Rop Kyle J. Sandison Rita M. Schneider Kyle J. Schultz Melissa A. Simon Amy A. Sisoyev Stephanie C. Skaar Jessica B. Smith Michael R. Smith Da S. Song Leah A. Speet	Megan J. Taylor Megan R. Thomassen Kyle D. Thompson Alma A. Tinnin Rebecca Tong Allison J. Triezenberg Emily B. Ulmer Cara L. Van't Hof Joel E. Van Abbema Taylor S. Van Byssum Luke R. Van Denend Nathan J. Vander Plas Elizabeth A. VanderVeen Michael A. Vander Wal Kyle T. Vanderzee Eric W. Van Doren Malisea D. VanWyle	Kathleen N. Vinson Valerie R. Vranish Bethany L. Vrieland Sara K. Wagenmaker Megan L. Walcott Karin L. Walters Bradley J. Walton Emilie F. Warren Jason W. Wieringa Natalie Y. Wiersma Daniel K. Williams Brian M. Wilmarth Logan S. Witt David M. Wolfe Nicholas J. Wolters Melissa L. Wuthnow
Julie A. Osterink David S. Page Natalie E. Palacios Kayla M. Placencio	8	,	3
,	,	,	, , ,

BACHELOR OF ARTS OR
BACHELOR OF SCIENCE

General Science: Science majors - Biology,

Chemistry, Computer Science, Geography, Geology, Environmental Studies.

Mathematics, Physics Mark M. Ash

Iuliana L. Bartel Timothy M. Bartlam Nathan D. Beach Daniel K. Bediako Alexander A. Blanski Adam K. Bol Erica J. Boldenow

William R. Breese Tyler S. Buit Caitlyn M. Carter Kevin T. Chevalia Gabriel L. De Jong

Karin L. DeJong Emily P. DeVries Leanne N. de Waal Malefyt Katherine R. De Young

Marie L. DeYoung David L. Dornbos, III Jonathon L. Dozeman

Elroy J. Dyksen

Stephanie L. Duncan

Matthew W. Dykstra

Steven L. Dykstra Evan P. Eilers Kristina R. Ettema Courtney J. Frey Matthew J. Garvelink

Rachael A. Glassford Iennifer E. Goedhart Lee P. Heeringa Victor A. Hernandez Peter D. Hiskes

Sarah C. Hofman

Luke E. Kenbeek

Alysha N. Kett

Kathleen M. Hoogeboom Brad S. Huizenga Sarah E. Jelsema Kristin E. Jongsma

Justin T. Jonker Helga Joshua Sarah G. Kamper Armin J. Karim IV Iustin A. Keffer

Jerran N. Orwig Jessica E. Paul Rachael A. Pensinger Aren J. Phillips Laura J. Porter-Peden Kvle L. Radosevich

> Robert C. Roos David H. Roukema Brian W. Ryckbost Jonathan P. Schmitkons

Benjamin J. Koestler

Leonard P. Krygsman, IV

Jeffrey M. Koning

Laurie A. Koning

Anneke C. Leunk

Brandon J. Lingbeek

Katherine M. Lyzenga

Kate R. Leese

Mary J. Lim

Jared P. Litty

Mario F. Lucia

Hannah E. Maier

Carl E. McOueen

Amanda K. Messer

Samantha L. Miller

Whitney A. Nelson

Devin T. Mistry

Ross E. Norman

Hope E. Shaffer Kimberly I. Spronk

Kourtney F. Stonehouse David E. Streng Amv M. Strikwerda Nathaniel I. Strong Clayre E. Tanis

Jessie F. Taylor Andrew M. Tidball Richard K. Tilton Andrew R. Troy Joel A. Unema

Sara B. VanBronkhorst Caleb A. Van de Kleut Sara K. VandenBranden Iohn D. VanderHeide Laura A. Vander Neut John S. Van Dyke Hine Vang

Ryan H. Van Putten Holly L. VanWyk Abigail F. Veldkamp Taylor G. Voss Stephanie R. Watkins

David S. Will

William B. Wondergem Benjamin D. Workman

Alexandra E. Wells

BACHELOR OF ARTS OR	Toni M. D'Agostino	Scott C. Hase	Jenna E. Mellema
BACHELOR OF SCIENCE	Josef C. Darusz	Michael H. Hekman	Megan A. Miller
Brieffelok of Science	Aaron A. Davis	Matthew A. Hirdes	Paul K. Miyamoto
General Program:	Kelsey C. DeHaan	Erin M. Hoadley	Mark W. Moerdyk
Social Science majors	Sarah E. DeHoog	Calvin T. Hoekman	Kenneth M. Moesker
3	Rachael M. DeKraker	Christopher P. Hofstra	Fred E. Mohareb
- Business, Economics,	Laurel L. DeKruyter	Jonathan R. Hoogstra	Christine F. Morris
International Development	Alec C. DeLange	Jennifer R. Hossink	Keri A. Morton
Studies, Physical Education,	Lauren E. Delgaty	Marcus M. Ibrahim	David J. Mulder
Political Science,	Rebecca Deng	Evie L. In't Hout	Leah M. Mulder
Psychology, Sociology	Andrew P. DeVries	Jamie A. Hubers	Benjamin T. Nanninga
	Sarah E. DeVries	Nicholas J. Ippel	Andrew W. Ng
Chad M. Achterhof	Michael E. De Wit	Philip D. Jackson	Pamela M. Nordin
Erin E. Alley	Ruth A. Diemer Woodrow P. Dixon	Matthew A. Jakubowski Timothy P. Janke	Adam D. Nieuwkoop
Luke D. Allison	Dana A. Doll	Amy E. Jonason	Nunana K. Nyomi Joshua D. O'Berski
Margaret E. Andersen	Anna E. Doud	Matthew T. Judge	Joshua D. O'belski Joshua D. O'ele
Kirsten L. Anderson	Austin P. Drury	Lauren A. Jung	Samantha K. Oliver
Ellen M. Arrowsmith	Tyler J. Eelkema	Karen J. Kaashoek	Jonathan A. Ooms
Patricia U. Askew	Daniel J. Eizenga	Erin L. Kammers	Emily M. Oosterhouse
Sean I. Baker	Carissa N. Elenbaas	Johnathan S. Kapenga	Julianne L. Opperwall
Eric A. Beach	Michael D. Faber	Audrey M. Kelly	Kevin J. Pasma
Elisabeth A. Beal	Amy M. Fahner	Zachary R. Kimmel	Nicholas P. Paulucci
Michael J. Beerhorst	John M. Feyen	Jacqueline C. Klamer	Susan J. Pearson
Christopher D. Beute	Greg M. Fieldhouse	Emily B. Klooster	Stacey L. Penning
Rory J. Blevins	Jonathan B. Fischer	Kevin H. Knol	Jonathan E. Persenaire
Jordan A. Bloem	Kara D. Fisher	Austin J. Knuppe	Brandon J. Peterson
Ryan W. Boer	David A. Flikkema	Peter A. Kontras	Lindsey N. Peuler
Jared E. Bogaards	Kyle A. Folkema	Matthew R. Kool	Charles M. Phelps
Timothy C. Bollinger	Steven M. Folkerts	Staci L. Kool	Brian S. Pirog
Maribeth K. Borchert	David C. Fortosis	Robert W. Kooyenga	David D. Price
Kincso I. Borgyos John H. Boumgarden	Timothy I. Frazier Kevin D. Fuller	David J. Korringa	Brian P. Quarrella
David J. Brace	Mark A. Gabrielse	Christoper W. Kowalewski Jonathan M. Kuipers	Jonathan D. Rauwerda Clair C. Raymond
Richard H. Brown	Brian M. Genzink	Todd D. LaForest	Amy C. Reeves
Crystal P. Bui	Karen R. Genzink	Scott W. Larsen	Anne E. Reilly Clegg
Kyle T. Buikema	Kristen A. Gere	Eunice H. Lee	Andrew J. Reinhardt
Clara R. Campbell	Sarah K. Geurkink	Isaac J. Leestma	Richard J. Rietberg
Ryan J. Charles	Megan M. Ghysels	Anna E. Lion	Monica T. Rosales
Kirsten L. Chase	Zachary E. Gibson	Ka Chi Liu	Cari L. Rottman
John Chhay	Timothy M. Graff	Handy Lu	Michael P. Ryskamp
Cora L. Christiaans	Andrew C. Gregory	Mateus S. Macedo	Keziah Samuel
Ha Na Chun	Jacob W. Gurtler	Miriam L. Maring	Shannon L. Schafer
Kathryn L. Cooper	So Young Han	James B. Martlew	Bethany J. Schutt
Stephen H. Cowan	Caitlin R. Hanna	Lara N. Matzat	Lucas R. Seebeck
Robert M. Crane	Timothy R. Harris	Courtney B. Medema	Ho Kyung Seo

Hannah L. Serfling	Michael R. Swierenga	Nathan J. Van Drunen	Gwen C. Vryhof
Paula J. Simoni	Rachel A. Sytsma	Andrew L. Van Essendelft	Emily C. Vyn
John D. Singleton	Mark D. Teater	Chad A. Van Houten	Eric T. Walber
Abby Skeans	Nanea T. Thomas	Eric VanMarion	Kyle J. Walcott
David J. Slotsema	Matthew S. Triemstra	Alden M. Van Solkema	Jorim C. Wassink
Jacqueline S. Smith	Linnea M. Trippett	Andrew J. VanStee	Tina L. Westveer
Kaurina K. Smith	Kristine R. Tuinstra	Megan L. Van Vugt	Crystal J. Wigboldy
Matthew H. Snapper	Jason M. Vande Kopple	Anna M. Vanweerdhuizen	Brian H. Wilkins
Sarah E. Snoeyink	Christopher I. Vanden Berg	Jeremy R. Veenema	Bryan D. Wilson
Elizabeth R. Souza	Christina M. Vanden Bosch	Justin R. Venhousen	Danielle Worthen-Ramos
James E. Spaan	Joel S. VanderBand	Eric W. Venlet	Sayaka C. Yamashita
Angela E. Spitters	Sara N. Vander Bent	Dawn M. VerBeek	Chad M Yonker
Jillian L. Spoolstra	Kyla K. Vander Hart	Julie L. VerHill	Ronald J. Zaagman
Amanda L. Stek	Jessica L. VanderPloeg	Clay M. Verkaik	Christopher J. Zoetewey
Stephen J. Stringer	Marlene J. VanderSpek	Eric L. Visser	Katie M. Zondervan
Joseph E. Sung	Julie A. Vande Vusse	Sara J. Visser	Jennifer C. Zylstra
Jessica K. Swagman	Lucas K. Van Drunen		

BACHELOR OF ARTS OR	Jennifer M. DenOuden
BACHELOR OF SCIENCE	Jenelle L. Door
	Megan E. Dotinga
Education Program:	Lauren E. Gamelin
Elementary Education	Megan M. Geenen
, 	Jonathan E. Gries

Lindsay R. Bailey

Anne M. Bolkema

Kelli L. Bowmaster

Kristen M. Buurma

Matthew J. Christians

Dana M. Baker

Janae C. Byker

Erin M. Conrad

Laurel A. Deeter

Sarah L. Hoag Timothy A. Konynenbelt Jean-Daniel Lussier Amanda L. Mattson Marci D. Mulder

Colleen L. McNeiece

Corinne P. Harberts

Lydia Park Joy A. Posslenzny Jessica R. Preston Julia K. Roosma Katie M. Schonewill Kimberly A. Schrader Julia R. Signore

Kelly J. Post

Laura R. Sizemore Rachel L. Smeding Benjamin J. Sneller Kelly M. Steiner Nikki L. Stussick

Katherine Y. Swierenga

Amy B. Vander Zwaag

Angela E. Van Drunen

Heather A. Tritz

Maria L. Van Dyk Cori J. Van Koevering Ashley M. VanSickle Jennifer L. Van Winkle Katlyn E. Varela

Michael D. Velthuizen Julie E. Vermeer Lindsey N. Vickery Andrea J. Voss Kara D. Westra Betsy A. Wierenga Faith E. Williams Kerri L. Zoetewey

Education Program: Secondary Education Julie A. Bailey Chan Yang Bak Joel E. Berends Marjorie J. Block Lynn M. Bradshaw Justin M. Brasser Julie C. Brink Pamela J. Broene Katie E. Butcher Rebecca H. De Boer	Randall D. DeKleine Aaron E. Eding Jonathan I. Faber Kyle J. Fletcher Lindsey R. Geelhoed Brett R. Geertsma Joshua M. Glerum Michael J. Goorhouse Allyson G. Green Benjamin E. Hammer Jennifer A. Harkema Eric R. Heerspink	Kate D. Hickey Noah W. Hollander Hanna L. Hoovestol Jennifer N. Horst Michelle R. Jonker Sean M. Kass Justin N. Kenderes Kathleen Q. Kovach Jonathan P. Langdon Charis G. Larson Katy L. Luimes Kevin G. Martin	Benjamin T. McCray Erin M. Moore Tyler A. Petrini Scott D. Piersma Matthew J. Sterenberg Chara J. Svaan Benjamin A. Vanden Berg Rachel M. VanDerWiele Derek J. Van Dyke Rachel D. Van Wingerden Michael D. Veldstra Annalise Venhuizen
Education Program: Special Education	Stacie B. Bode Lisa J. Boone Kristin Bredeweg Heather E. DeWeerd	Ruth J. Flikkema Tyler B. Harms Gina L. Haverdink	Lauren E. Roberts Emily M. Steenstra Carla R. VandenBos
BACHELOR OF SCIENCE IN ACCOUNTANCY	Ann M. Boggs Tricia J. De Vries Gerald C. Egede Joshua A. Franken Genesis Q. Guanga	Brandon A. Hahn Lance N. Klamer Lee A. Klamer Steven D. Kotman Gitau Kungu	Anna M. Lobbestael David J. Nielsen Meghan L. Rempel Catherine L. Van Proyen Joel A. Zandstra
BACHELOR OF SCIENCE IN PUBLIC ACCOUNTANCY	Eric W. Boer Brad A. Brummel Diane Dee D. Bunque Randall D. DeVries Pieter H. Groot Daniel L. Jahn	Allison M. Kats Jeremy T. Landon Michael A. Stob Chad A. Van Houten Megan L. Vanoostveen Timothy J. VanWingerden	Daniel W. Volkema Sarah L. Weller Charles D. Wilks Kraig P. Witte Wendy C. Zigterman

BACHELOR OF COMPUTER SCIENCE	Seth A. Janes	Brandon C. Thomas	John E. VanEnk
BACHELOR OF SCIENCE IN ENGINEERING Adebo O. Alao Philip Baah-Sackey Erik A. Barton Brian J. Bode Derek M. Boogaart Eric J. Bratt Nathan J. Brinks Jonathan D. Bruinsma Brianna S. Bultema Eu Sung Chung Jonathan S. Cooper Gwendolyn R. Einfeld Joseph A. Englin Andrew W. Gabler	Christopher J. Gates Joseph J. Gluvers Jeffrey M. Guerrero Michael W. Handlogten Joshua R. Harbert James R. Horton Jared J. Huffman Corinne N. Kluge Jason D. Kraai Richard K. Kwakye Christopher E. Lowell Aaron W. Lubben Daniel J. Luyk David R. Lyzenga Aaron R. Maat Philip E. Maier Alexander C. Marcus	Andrew P. McBurney Brian J. Medema Christopher A. Michaels Daniel J. Michalowski Benjamin C. Moes Jonathan E. O'Brock Christina M. Overbeck Christian B. Pfretzschner Brady R. Rathbun Charles S. Reitsma Jeremy A. Schut Aaron L. Scott Achyut Shrestha Justin M. Slocum Matthew T. Snyder Michael L. Spee Julie L. Stoddard	Jeremiah D. Strong Charles R. Terpstra Jordan L. Terpstra Frederick W. Thielke William A. Tolsma Michael B. Vance Daniel J. Vanden Akker David W. Van Geest Aaron W. Van Proyen Joshua E. Velthouse Nathan L. Verseput Mark T. Volle Joel R. Voogt Jordan L. Wanner Justin K. Wassink Theodore A. Worst
BACHELOR OF FINE ARTS	Sara A. Bakker Tracy R. Guajardo	Eric R. Heerspink	Ruth T. Ribeiro
BACHELOR OF SCIENCE IN LETTERS AND OCCUPATIONAL THERAPY	Kathryn S. Lindsten	Nora K. Wallace	

BACHELOR OF SCIENCE	Carrie L. Groen	Michael Niyibizi	Laura M. Van Norstrand
IN NURSING	Heather L. Guichelaar	Scott E. Poortenga	Anna L. VanRegenmorter
	Laura E. Hall	Sara K. Post	Hillary R. VanWoerkom
Scott A. Baar	Andrea W. Homan	Ali M. Reenders	Rachel M. VanZanten
Ryan J. Borr	Ellen R. Jackson	Florin T. Sarbu	Cassandra M. Vedders
William N. Brouwer	Shinae Kim	Krista L. Sneller	Torian D. Veltkamp
Laura C. Clayton	Aubrey I. Kingma	Deanna K. Speyers	Julia C. Visbeen
Christina E. del Salto	Ethan A. Knoper	Joshua C. Steiner	Rachel E. Visser
Elizabeth A. De Maagd	Lindsey N. Koning	Alyssa J. Tanis	Emily M. Vladuchick
Rachel A. DenBoer	Joshlyn S. Litzenberger	Jessica A. Tjapkes	Nicole M. Voortman
Amanda J. DeVries	Jessica A. Lutke	Sara L. Vail	Melissa A. Waite
Rachel D. Eldersveld	Jalean A. Makedonsky	Laura L. Vanderlaan	Melissa C. Wideman
Laura B. Essenburg	Caitlin E. Martzke	Cynthia A. Vander Moren	Daniel D. Wiersma
Kurt A. Feringa	Kerman R. Moran-Facanha	Rebecca J. VanderVennen	Ashley E. Wilson
Mary M. Fuller	Ruth E. Mulder	Melissa R. Vanderzee	Jessica E. Witte
Lisa M. Gingerich			
BACHELOR OF SCIENCE	Joseph J. De Young	Mitchell G. McWilliams	Laura E. Schoonover
IN RECREATION	Megan J. Grasman	Chad F. Meekhof	Cassandra L. VanderWell
II (RECREITION	Tim F. Hurst	Christopher J. Morris	Alice N. Weeda
	Amy L. Jeltema	Matthew L. Ponstein	Chelsea N. Yergin
			Ü
PACHELOD OF	MC LEDG .	I M II I	n Tl
BACHELOR OF	Mindy E. DeGroot	Laura M. Kool	Pa Thao
SOCIAL WORK	Annalise J. De Zoete	Emery J. Lovse	Kristin B. VanderKam

Heather M. Pasma

Katie L. Rosendale

Catrina R. Schrock

Anna L. Taglialatela

Lauren B. Vander Plas

Katelyn J. Van Noord

Joy M. VerBeek

Melista D. Genzink

Abigail S. Hoekstra

William A. Hopkins

Sarah M. Jansen Noteboom

Ashley M. Bultje Hannah E. Butterfield

Ji Young Byun

HONORS GRADUATES

These students have received commemorative medallions for their completion of all requirements in the Calvin College Honors Program.

Rachael Glassford Baker, honors in biochemistry

Sean I. Baker, honors in business

Eric A. Beach, honors in business/communication

Nathan D. Beach, honors in computer science

Kwabena Bediako, honors in chemistry

Alezander A. Blanski, honors in biotechnology

Amie L. Bommelje, honors in English Joshua S. Dekker, honors in history

Katherine R. DeYoung, honors in biology

ratherme in Deroung, nonors in bloody

David L. Dornbos, III, honors in biology

Gwendolyn R. Einfeld, honors in engineering

Jonathan B. Fischer, honors in psychology

Andrew W. Gabler, honors in engineering

Austin J. Hakes, honors in history

Joshua R. Harbert, honors in engineering

Jonathan H. Hirte, honors in political science

Kathleen M. Hoogeboom, honors in physics

Ashley J. Hutchison, honors in history

Daniel L. Jahn, honors in public accounting and economics

Sarah E. Jelsema, honors in biology

Karen J. Kaashoek, honors in interdisciplinary major

Sarah G. Kamper, honors in biochemistry

Armin J. Karim, honors in music

Drew P. Karlberg, honors in philosophy

Kevin H. Knol, honors in psychology

Austin J. Knuppe, honors in history and political science

Christina J. Lechlitner, honors in Asian studies

Anna M. Lobbestael, honors in public accountancy

Meredith J. Mele, honors in English

Stephen C. Mellis, honors in Greek, Latin, and classical studies

Ross E. Norman, honors in physics

Jerran N. Orwig, honors in biology

Jessica E. Paul, honors in biology

Susan J. Pearson, honors in biology

Christian B. Pfretzschner, honors in engineering

Cari L. Rottman, honors in psychology

Shannon L. Schafer, honors in international development

John D. Singleton, honors in economics

Jacqueline S. Smith, honors in psychology

Michael L. Spee, honors in engineering

Caitlan R. Spronk, honors in English

Kimberly J. Spronk, honors in biochemistry

Joseph E. Sung, honors in international relations

Jessie F. Taylor, honors in physics

Fredrick W. Thielke, honors in engineering

Richard K. Tilton, honors in biology

John D. Vander Heide, honors in biology

Marlene J. VanderSpek, honors in sociology

Elizabeth A. Vander Veen, honors in speech pathology

and audiology

Lucas K. Van Drunen, honors in business

John S. Van Dyke, honors in physics

Melissa D. Van Wyk, honors in classical studies

Annalise Venhuizen, honors in English

Emily C. Vyn, honors in psychology

William B. Wondergem, honors in biology

SENIOR HONORARY AWARDS

David A. Baldwin

Music Teachers National Association Student Achievement

Nathan D. Beach

CCA Computing Award

Kwabena Bediako

The Robert J. Albers Outstanding Senior in Biochemistry Award

Stephanie L. Beerens

VanderArk Distinguished Student Teacher Education Award

Peter T. Bosch

Kent Medical Foundation Grant

David L. Dornbos III

Dr. Roger A. & Bradley J. Hoekstra Toward Christian Excellence in Medicine Award

Jonathan J. Fisher

Zondervan Greek Award

Jennifer E. Goedhart

The Bernard J. TenBroek "Excellence in Biology in Research" Award (Organismal Biology/Ecology)

Michael J. Goorhouse

Paul H. Boonstra Memorial Award in Mathematics Education

Austin J. Hakes

Dr. Peter D. Hoekstra Memorial Award (History)

Benjamin E. Hammer

VanderArk Distinguished Student Teacher Education Award

Jennifer A. Harkema

The Bernard J. TenBroek "Excellence in Secondary Education"
Award

Kate M. Hickey

VanderArk Distinguished Student Teacher Education Award

Bradford S. Hoff

The History Department John DeBie Prize

Sarah C. Hofman

Elsa Cortina Outstanding Senior Award (Spanish)

Emily E. Huyser

VanderArk Distinguished Student Teacher Education Award

Paula M. Kielstra

French Department Outstanding Senior Award Harmon D. Hook Memorial Award (English)

Stephen C. Mellis

Classical Association of the Middle West and South (Classics)

Casey J. Nagle

William B. Eerdmans Literary Award (English)

Laura Porter-Peden

The Karen J. Carlson Muyskens Outstanding Senior in Chemistry Award

Jonathan P. Schmitkons

Outstanding Senior Award in Geology

Hope E. Shaffer

The Bernard J. TenBroek "Excellence in Biology in Research" Award (Cell/Molecular Biology)

Jacqueline S. Smith

French Department Outstanding Senior Award

Emily M. Spinniken

VanderArk Distinguished Student Teacher Education Award

Nathaniel I. Strong

William Rinck Memorial Prize in Mathematics

Jessica H. Taylor

William Rinck Memorial Prize in Mathematics

Richard K. Tilton

Bret and Marlene Kort Award in Medicine

Joel A. Unema

Outstanding Senior Award in Geology

Laura A. Vander Nuet

Outstanding Senior Award in Geography

Maira L. VanDyk

VanderArk Distinguished Student Teacher Education Award

Melissa D. Van Wyk

Latin Award for Outstanding Achievement

Annalise Venhuizen

VanderArk Distinguished Student Teacher Education Award

Departmental Banners

Throughout history, colorful banners have been used to mark important religious and civic events and to celebrate the vision and spirit of the participants in such events. The departmental banners displayed at this occasion arise from an awareness of this tradition and are meant to continue it. Besides symbolically revealing the richness of the various disciplines at Calvin College, the banners graphically represent their distinctiveness. Although their colors are mostly in keeping with traditional associations—scarlet for religion and theology, blue for education, orange for engineering—their forms combine the traditional, the contemporary, and the abstract.



Art and Art History



Rusiness



Chemistry and Biochemistry



Biology

Classical Languages



Communication Arts and Sciences

Art and Art History Department

An abstract eye and hand symbolize artistic expression through the artist's sense of sight and touch. Bright colors against black suggest creative boldness.

Business Department

The banner of the Business Department depicts a visual representation of business as a nexus of relationships between people. A Christ centered education is symbolized by the center vertical column and the horizontal shape of human figures forming a cross. The center vertical, white column also symbolizes the light of learning and the presence of the Holy Spirit in education.

Biology Department

Dominating the biology banner is a symbol representing the structure of the DNA molecule, deoxyribonucleic acid. The structure of this fundamental material of life, the chemical basis of heredity, was revealed in 1953 and actually photographed in 1969.

Chemistry and Biochemistry Department

The main symbol used in this banner is the electron distribution for tetrahedral hybrid orbitals, which represents the chemical activity of the elements and their compounds. Two segments of a crystal structure are included in the design, which are also the floor plan shape of the science building. The shaft of pale yellow symbolizes the light of investigation. Yellow is the traditional color associated with science.

Classical Languages Department

While the lyre and the wolf may be taken individually as symbols of Greece and Rome, together they portray the unity of the two civilizations and its cultural achievement, the union of art and nature, and of poetry and myth. Horace has given this continuity and fusion of the two traditions of Greece and Rome its classical literary expression in his odes, of which none better, perhaps, than the "Integer vitae" ode conveys the intention of this banner.

Communication Arts and Sciences Department

Sound waves emanating from a central core symbolize communication through speech and drama. The reversal of the outward movement suggests feedback in communication. Silver gray is the color traditionally assigned to speech and drama.



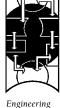
Computer Science



Economics



Education





English



French



Geology, Geography, & Environmental Studies

Computer Science Department

The banner of the Computer Science Department features a Turing machine, the foundational model of digital computation. The zeroes and ones on its tape reflect the binary logic by which digital computation is implemented. The changing colors and order of the numbers express the transition as data move from input through processing to output. The white shaft and its golden sheath symbolize the light and energy of education and the sciences. The flowing wind symbolizes the transforming work of the Holy Spirit as it infuses the discipline of computing.

Economics Department

Shapes and lines express the charting and planning of economic budgets. Subtly appearing among other symbols is a cross expressing the Christ-centered teaching of economics at Calvin College. Copper is the color associated with economics.

Education Department

The relationship of teacher and student in the educational process is represented by the forceful interaction of shapes in this design. The white shaft symbolizes the light of learning in the Holy Spirit. Blue is traditionally linked with education.

Engineering Department

The Engineering banner illustrates the key activity of engineers, namely, their involvement with the design process, an iterative, decision-making sequence. Steps in the sequence, represented by circles and rectangles, are connected by arrows to indicate the movement from the initial problem statement to final solution. Two-way arrows suggest the possibility of sequence reversal. Orange traditionally designates engineering.

English Department

The two main symbols, the lion and the eagle, represent England and the United States of America. The lozenge pattern in the background expresses the pageantry of England during the development of the English language.

French Department

The banner of the Department of French features the Coq Gaulois, long a national emblem of France, and Arch of Triumph, a symbol of French patriotism. The cock, traditionally the Christian symbol for watchfulness, has been adopted as its symbol by a nation which since its inception has been one of the important cradles of Christian thought and practice. The colors of the national flag are represented by the Coq Gaulois.

Geology, Geography, and Environmental Studies Department

Earthkeeping, the human community's care for God's earth, is symbolized in the banner for the Department of Geology, Geography, and Environmental Studies by representations of atmosphere, mountains, cities, water, and the various levels of the earth's interior. The white shaft symbolizes the light and energy of learning stimulated by the Holy Spirit.



Germanic & Asian Languages & Literatures



Health, Physical Education, Recreation, Dance & Sport



History



Library

Music



Mathematics

& Statistics

Nursing



Philosophy

Germanic and Asian Languages and Literatures Department

The study of the Dutch and German languages is represented by symbols taken from emblems of the countries associated with these languages. The traditional black eagle represents Germany, and the orange lion is from the seal of the Netherlands. The white shaft symbolizes the light of learning.

Health, Physical Education, Recreation, Dance, and Sport Department

Engaged in exercise, sports, and dance, a person in motion is suggested by the movement of rhythmical shapes and lines. Sage green is the color associated with physical fitness.

History Department

Jagged horizontal bands, representing both the rise and fall of civilizations and the four kingdoms as described in the Book of Daniel, move across vertical time lines, which also symbolize the dramatic influence of Christ on history.

Library

The library as a gatherer, receptacle, and distributor of information, ideas, and learning is represented by the abstract book shape, while the white, flowing shaft itself symbolizes the light and energy of learning in the Holy Spirit of God. The flame is the traditional symbol of learning and discovery through research.

Mathematics and Statistics Department

Mathematicians have always saved time and effort by substituting symbols for words. The basic arithmetical steps of adding, subtracting, multiplying, and dividing are depicted on this banner by some of the earliest ways of writing them down.

The Renaissance calculator Tartaglia used the first letter of the Italian word for plus to signify adding. Diophantus favored this minus sign in Greek times. Leibniz employed this multiplication symbol in 17th-century Germany. J. E. Gallimard used this reverse D for division in 18th-century France.

Music Department

The design of the Music banner emphasizes the rhythms of musical sounds. Shapes and lines suggest strings, valves, keys, horn bell, drum, and other musical forms. Radiating circles suggest sound waves. The colors express the various moods of music.

Nursing Department

The traditional emblem of nursing, Florence Nightingale's lamp, is featured in the banner for the Department of Nursing. The flame of the lamp symbolizes the light of Christian compassion and education. The gold of the lamp is the traditional color for science. The background apricot color is the academic regalia color for nursing, while the white shaft represents peace through the Holy Spirit.

Philosophy Department

Light refracted through a transparent prism symbolizes the many-faceted investigations of fact and of principles of reality and of human nature and conduct.



Physics and Astronomy



Psychology Religion



Spanish

Sociology & Social Work



Science

Physics and Astronomy Department

The construction of elements is symbolized in the Physics banner by the simplest atom, hydrogen, with its single proton and electron. Also included in the design are a tracing of the paths of particles from an atom and a segment of a crystal structure which is also the floor plan shape of the science building. The yellow shaft symbolizes the light of investigation.

Political Science Department

The banner of the Department of Political Science features a representation of the fasces, a symbol of the authority of the state, and arrows that express the direction and flow of the analytical and holistic nature of the process of law. The fasces, a bundle of rods bound about by an ax with projecting blade, was carried before ancient Roman magistrates as a symbol of authority. The white shaft of seven rods also symbolizes peace and enlightenment through the Holy Spirit.

Psychology Department

The Greek letter PSI, the first letter of the Greek word psyche (the mind), traditionally signifies the discipline of psychology. The color red symbolizes emotion; blue, rationality; and white, peace through the Holy Spirit.

Religion Department

Three symbols of the Trinity—circle, cross, and dove—express the fullness of God as He reveals Himself as Creator, Savior, and Counselor. These symbols are interlocked to depict the oneness of God. The shaft of white is the light of learning in Christian education guided by the Holy Spirit. Scarlet is traditionally associated with theology.

Sociology and Social Work Department

The central concept of sociology, represented by the inner circle, is a person interacting with other people to form groups. Total human society, represented by the broken circle, is composed of many small units forming a larger interrelated structure. All groups, from the family to society itself, exist within a framework of social norms. This normative or cultural framework, represented by the unbroken outer circle, promotes conformity, as suggested by the arrows directed from it toward the inner circles of society and the smaller group.

Spanish Department

The banner of the Spanish Department features the traditional symbols of the historical kingdoms of Castilla (castle), León (lion), and Aragón (red and yellow bars). These Christian kingdoms emerged during the eight-hundred-year-long reconquest of the Iberian Peninsula from domination by Muslim rulers. The separate kingdoms were joined through the marriage of Ferdinand and Isabella, and eventually coalesced into the modern nation of Spain.



Banners: Robin A. Jensen

Commencement Committee: Peter Tigchelaar and Darlene Meyering, co-chairs, Donna Anema, Rick Balfour,

Ada Castle, Sharolyn Christians, Robert Crow, June DeBoer, Ben Graves, Mary Jeanne Quist, Jeff Stob, Diane Vander Pol, James Van Wingerden

Commencement Participants: Johnathan Bascom, Ruth Groenhout, Karen Saupe, Cynthia Slagter, James VandenBosch,

Douglas VanderGriend, Dean Ward, Uko Zylstra

Greeters: Henk Aay, Judy Baker, Joy Bonnema, Jack Bosscher, Randy Brouwer, David Dornbos, Earl Fife, Dick Harms, Tom Hoeksema, Jim Jadrich, Michelle Loyd-Paige,

Raymond Slager, Frank Speyers, Thomas Steenwyk, Peter Tigchelaar, Judy VanderWoude

Liturgy: David Diephouse, Professor of History

Faculty Marshals: Martin Bolt, Ph.D., Glen Van Andel, Ph.D.

Student Marshals: Kwabena Bediako, Karen Kaashoek, Keziah Samuel, Michael Spee

Design: Calvin College Publishing Services

Flowers: Eastern Floral

Publicity: Phil de Haan, Director of Communications and Marketing; Michael J. Van Denend,

Executive Director, Calvin Alumni Association

Signers: Nancy De Maagd

Technical Assistance: Video Productions, Conferences and Campus Events Technical Services, Corporate Sound and Calvin Information Technology